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Abstract Book



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Podium #1

MANAGEMENT OF ISCHEMIC PRIAPISM IN THE U.S.: ANALYSIS AND PREDICTORS OF ERECTILE DYSFUNCTION AND PENILE PROSTHESIS IMPLANTATION IN A 12-YEAR POPULATION-BASED DATABASE

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Presented By: Uzoma Anele, MD

Introduction: Priapism is a urologic condition characterized by a persistent erection, and its management varies depending on the specific type of priapism. Despite established clinical guidelines for ischemic priapism, there is a lack of large-scale research focused on patient characteristics and management strategies. Therefore, we analyzed contemporary management of ischemic priapism in the US, exploring patient demographics and clinical characteristics, as well as predictors of erectile dysfunction (ED) and penile prosthesis implantation (PPI).

Methods: We conducted a retrospective analysis of the PearlDiver Mariner database, examining records from 2010-2021 and focusing on adult males diagnosed with ischemic priapism. We analyzed demographic and clinical data, as well as management strategies. Multivariable logistic regression was used to identify predictors of de novo ED and PPI.

Results: Out of 36,120 patients, 93% received only medical management, while a minority underwent surgical interventions such as penile shunt surgery, PPI, or both. Medical management proved generally effective, with 67.08% of these patients experiencing only one episode of priapism. However, 16.57% of patients developed de novo ED. Among those who underwent PPI, 81% had an inflatable prosthesis. Significant predictors of de novo ED included older age (odds ratio [OR] 1.02), metabolic diseases (OR 1.39), neurogenic disorders (OR 1.72), solid pelvic malignancies (OR 1.09), and multiple episodes of priapism (all $p < 0.05$). Similarly, predictors of undergoing PPI included older age (OR 1.03), metabolic diseases (OR 1.23), solid pelvic malignancies (OR 1.99), and multiple episodes of priapism (all $p < 0.05$) (Figure 1).

Conclusion: Most cases of ischemic priapism are treated with medical therapy, with fewer than 3% of patients requiring PPI. When PPI is performed, an inflatable prosthesis is typically preferred. Key predictors of ED and the need for PPI include age, certain comorbidities, and multiple episodes of priapism.

Funding: N/A

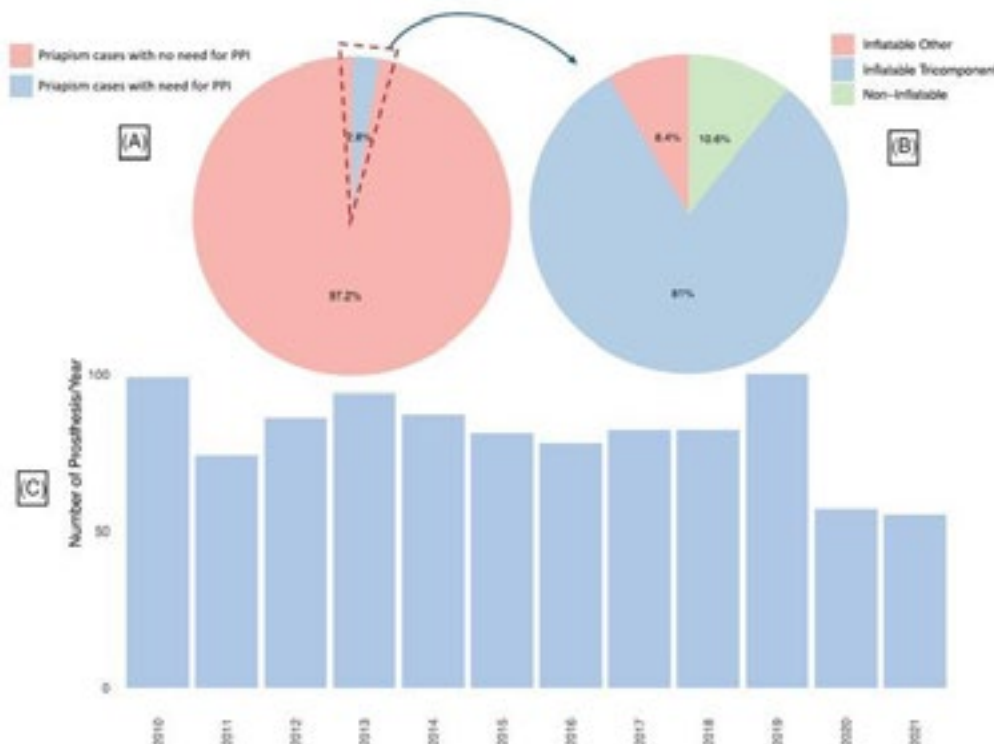


FIGURE 1 Number and types of penile prosthesis during the study period. (A) Priapism cases with need for PPI in the total cohort. (B) Type of penile prosthesis. (C) Number of prosthesis per year (2010-2021). PPI, Penile prosthesis implantation.

Podium #2

COMPARATIVE STUDY DIPPING TITAN IMPLANTS IN IRRISEPT (0.05% CHG) SOLUTION, VANCOMYCIN/GENTAMYCIN OR SALINE CONTROL AND EXPOSURE TO VARIOUS MICROBIAL SPECIES

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Presented By: Gerard D. Henry, MD

Introduction: Infection retardant coated implants have significantly decreased penile prosthesis infection (PPI) since their release in 2001. However, the microbial spectrum of PPI has significantly changed since then based on recent literature reports of PPI. Here we present the results from the largest comparative study of Irrisept® solution, Vancomycin/Gentamicin (V/G) and a saline control on microbial reduction in hydrophilic coated implants.

Introduction: Evaluate the microbial reduction by Irrisept®, V/G and saline dipped and irrigated Titan® implant discs.

Methods: The previously published protocol was used adding a V/G arm. (Figure 1 and 2) An in-vitro microbial reduction evaluation of the ability of an irrigation solution and device or V/G to remove transient bacterial contamination from a test substrate - pre-cut discs prepared from a penile implant material. Three microorganisms - Escherichia coli (ATCC #25922), Pseudomonas aeruginosa (ATCC #27853), and Staphylococcus aureus (ATCC #25923) were used for this evaluation. For each challenge species, three discs of the implant material (i.e., Baseline Carriers) were pre-conditioned by immersion in 0.9% Sodium Chloride Irrigation, USP (Baseline Controls), three discs were pre-conditioned by immersion in the irrigation solution (Irrisept®) and three discs in V/G; (i.e., Test Carriers). The three contaminated Baseline Carriers were evaluated for viable microbial recoveries, three of the contaminated and dried Test Carriers were evaluated for viable microbial recoveries with no additional treatment (Pre-Rinse Test Carriers), and the three remaining Test Carriers were evaluated following a rinsing procedure using the wound irrigation device/solution, V/G or saline (Post-Rinse Test Carriers).

Results: Table 1 presents the Initial Populations (CFU/mL), the Mean Baseline Control Recoveries (log10), the Mean Pre-Exposure Reduction (log10) and the mean Post-Exposure Recovery (log10) of Escherichia coli (ATCC #25922), Pseudomonas aeruginosa (ATCC #27853), and Staphylococcus aureus (ATCC #25923) produced by the wound irrigation device/solution (Irrisept® 450mL [Lot #21HDB982]), V/G or saline following three rinses/irrigations. Irrisept® was more effective than V/G and saline in reducing microbial counts in all the organisms tested.

Conclusion: Irrisept® dipped and irrigated Titan® discs are shown to kill all the tested bacteria better than V/G or saline. The log reduction in bacterial species is consistent with the known efficacy of V/G and Irrisept® in other studies.

Funding: IRRISEPT

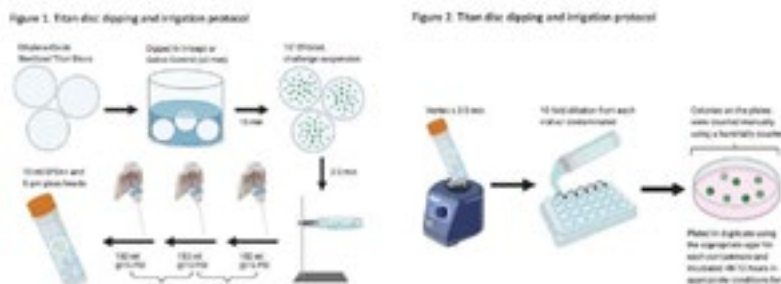


Table 1. Initial Population, Mean Baseline Control Recovery, Mean Pre-Exposure Reduction and Mean Post-Exposure Recovery

An Evaluation Of The Removal Of Transient Bacterial Contamination From A Penile Implant Material				
Test Strain (ATCC #)	Initial Population (CFU/mL)	Mean Baseline Control Recovery (log ₁₀ CFU/mL) (n=3)	Mean Post-Exposure Recovery (log ₁₀ CFU/mL) (n=3)	Mean Post-Exposure Reduction (log ₁₀ CFU/mL) (n=3)
Escherichia coli (ATCC #25922)	3.8 x 10 ⁷	7.70	3.30	4.50
Pseudomonas aeruginosa (ATCC #27853)	1.4 x 10 ⁷	7.10	2.75	4.37
Staphylococcus aureus (ATCC #25923) (methicillin sensitive)	1.9 x 10 ⁷	7.52	6.29	3.22
Test Strain (ATCC #)	Initial Population (CFU/mL)	Mean Baseline Control Recovery (log ₁₀ CFU/mL) (n=3)	Mean Post-Exposure Recovery (log ₁₀ CFU/mL) (n=3)	Mean Post-Exposure Reduction (log ₁₀ CFU/mL) (n=3)
Escherichia coli (ATCC #25922)	5.24 x 10 ⁷	6.96	<1.0	5.96
Pseudomonas aeruginosa (ATCC #27853)	7.65 x 10 ⁶	6.62	<1.0	5.62
Staphylococcus aureus (ATCC #25923) (methicillin sensitive)	1.9 x 10 ⁷	7.52	<1.36	>6.16

Podium #3

OPTIMAL RESTORATION OF SPERMATOGENESIS FOLLOWING TESTOSTERONE THERAPY USING HCG AND FSH

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Presented By: Christopher Zhou

Introduction: Off-label use of anabolic androgenic steroids (AAS) and prescription testosterone replacement therapy (TRT) continue to rise. Adverse effects include reduced fertility due to suppression of the hypothalamic-pituitary-gonadal (HPG) axis. Therapeutic regimens exist for restoring fertility in these individuals, including human chorionic gonadotropin (hCG) and follicle-stimulating hormone (FSH). Herein, we present the largest cohort to date undergoing combination hCG with FSH therapy for the treatment of infertility with prior AAS use.

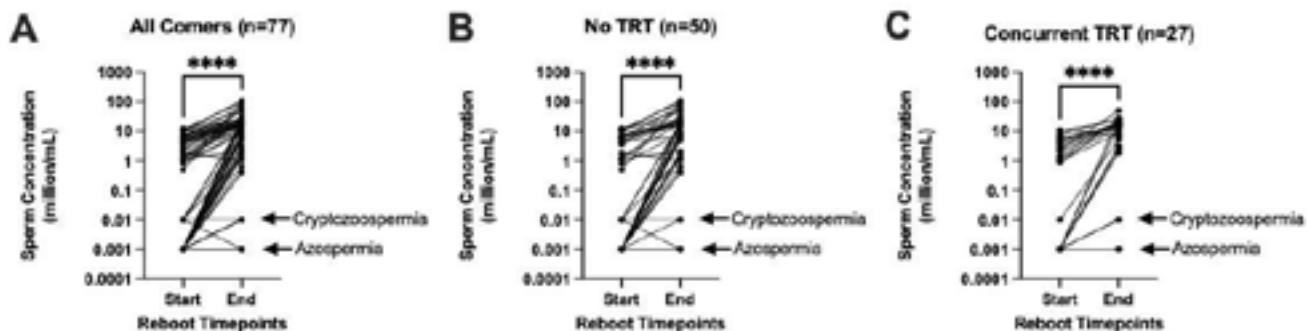
Methods: We conducted a single-center retrospective analysis on men receiving infertility treatment with 3000IU hCG plus 75IU FSH three times/week (termed "hCG/FSH reboot") from January 2020-March 2024. Patient characteristics were recorded including age, race, body mass index (BMI), co-morbidities, partner age, duration of reboot, testicular size prior to reboot, and serum FSH, LH, and testosterone values. We excluded patients without prior TRT, those with only one semen analysis, and those with normospermia (>15M sperm/mL on semen analysis). For each patient, we recorded semen analyses prior to and during hCG/FSH reboot at 3-month intervals. Data was analyzed using paired (Wilcoxon's Signed Rank test) or unpaired (student's t-test) analyses as appropriate.

Results: 77 patients were included with mean age 36 ± 6.5 years. 50 were not on concurrent TRT at the time of reboot, while 27 remained on TRT. Average duration of hCG/FSH reboot was 6.8 ± 5.2 months. Demographics were not statistically different between the "No TRT" and "Concurrent TRT" groups. 74% of all patients demonstrated improvement in sperm concentration after hCG/FSH reboot. Patient age, BMI, time on hCG/FSH reboot, prior duration of TRT, and starting testosterone and LH did not correlate with sperm concentration improvement. Patients were more likely to improve sperm concentration with larger starting testicular size, higher initial sperm concentration, and lower starting FSH. 74% of patients demonstrated improvement in semen parameters in each of the "No TRT" and "Concurrent TRT" groups. Concurrent TRT during hCG/FSH reboot did not dampen spermatogenic recovery.

Conclusion: We report effective recovery of spermatogenesis with hCG/FSH reboot therapy in infertile men with a history of testosterone use. Concurrent TRT did not impede hCG/FSH-mediated spermatogenic recovery. Further prospective trials are needed.

Figure 1. Changes in Sperm Concentration in response to hCG/FSH Reboot Therapy.

Funding: N/A



Podium #4

DOES NEUROANASTOMOSIS IMPROVE PENILE SENSATION RECOVERY AFTER REPLANTATION? A REVIEW OF 109 CASES

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Presented By: William Patrick Fuell, MD

Introduction: Penile amputation is a rare phenomenon encountered by urologists, with limited standardization and conflicting recommendations for surgical management. The first large-scale study comparing the outcomes of microsurgical versus surgical replantation was published in 2023. Prior to this study, operative techniques and postoperative expectations were largely guided by case reports and small case series with conflicting results. Insights from our colleagues in plastic surgery, particularly regarding digital replantation, suggested that primary nerve repair may enhance penile sensory recovery and should be performed if viable. However, the necessity and efficacy of nerve repair for penile replantation have remained subjects of debate. Our study aimed to evaluate whether primary nerve repair was necessary during microsurgical replantation for penile amputation. We hypothesized that vascular repair alone might be sufficient to drive neuroregeneration and recover penile sensation.

Methods: We analyzed data from "The Revised PENIS Score and Proposal of the PACKAGE Checklist: A Meta-Epidemiologic Study on Penile Amputation and Replantation." We compared patients who underwent microsurgical replantation—defined as any repair involving anastomosis of vessels or nerves—with and without nerve repair. The goal was to determine the efficacy and necessity of performing primary nerve repair during penile replantation.

Results: Our analysis identified 109 patients who underwent microsurgical replantation for penile amputation. Of these, 35 patients received primary nerve repair, with 18 (51%) achieving near-normal sensory recovery. Among the 74 patients who did not receive primary nerve repair, 31 (42%) achieve near-normal sensory recovery. The difference in sensory recovery rates between the two groups was not statistically significant.

Conclusion: The findings suggest that primary nerve repair did not significantly affect the return of penile sensation after replantation. This effect is likely specific to penile tissue, as similar effects are not observed in digital amputations. This challenges the prevailing assumption that nerve repair is critical for sensory recovery in penile replantation. Given these findings, we recommend prioritizing microsurgical vascular repair and reperfusion for spontaneous neuroregeneration and recovery of penile sensation. Further research with larger sample sizes and standardized reporting using the Revised PENIS Score is needed to validate these results and guide clinical practices in penile replantation.

Funding: N/A

Podium #5

EFFECTS OF ERECTILE DYSFUNCTION AND SEVERITY OF CURVATURE ON PATIENT ESTIMATION OF PEYRONIE'S DISEASE DEGREE OF CURVATURE

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Presented By: Alan Perry, BA

Introduction: Peyronie's Disease (PD) has an estimated prevalence of 9% of all men. In PD, the physician-measured degree of curvature is crucial in management planning. However, before patients see a urologist the degree of curvature is often self-determined. Thus, potential discrepancy between patient and provider-determined degree of curvature is important to PD triage. We examined the accuracy of patient-determined degree of curvature, as well as the influence of erectile dysfunction (ED) and curvature severity on patient accuracy.

Methods: We performed a retrospective chart review on patients with PD diagnosed by office-based testing with intracavernous Alprostadil and Color Duplex Doppler Ultrasound (CDDU) between the years 2020 and 2024. Patients were required to have patient-determined and provider-determined degree of curvature. Exclusion criteria was presence of PD with $<7.5^\circ$ curvature. The primary outcome was rate of concordance, defined as the difference between provider and patient estimation of curvature less than or equal to 15° . All curvatures were rounded to the nearest 15° mark. We then analyzed the effect of ED, etiology of ED, and severity of curvature on concordance rate.

Results: 191 patients met inclusion criteria. The rate of CDDU-determined ED was 59.7%. The overall concordance rate was 79.6%, with 12.0% of patients overestimating and 8.4% of patients underestimating their degree of curvature. There was no correlation between concordance rate and presence or absence of ED ($p > 0.05$). Similarly, there was no correlation between concordance rate and presence or absence of each ED etiology (arterial insufficiency, corporovenous-occlusive dysfunction, or mixed etiology). The effect of curvature severity on concordance rate was significant ($p = 0.004$), with an OR of 0.98 (0.96 - 0.99).

Conclusion: Overall, patients were relatively accurate in determining their PD degree of curvature to the nearest 15° . Interestingly, there was no difference in concordance between patients with and without CDDU-diagnosed ED, despite conventional wisdom that lack of rigid erections would make determination of curvature more difficult. We found that patients with higher degrees of curvature were less likely to be concordant, with a magnitude of 26% lower concordance rate per 15° increase in curvature.

Funding: N/A

Podium #6

DEPRESSION AND ANXIETY ARE ASSOCIATED WITH HIGHER COMPLICATIONS FOLLOWING PENILE PROSTHESES SURGERY

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Presented By: Mark Cong Xu, MD

Introduction: Mental health conditions such as depression and anxiety are linked to worse surgical outcomes, including wound complications and mortality. Patients considered for penile prosthesis insertion often suffer from anxiety or depression. We chose to investigate whether mental health was linked to complications after penile prosthesis surgery.

Methods: With IRB approval, penile prosthesis cases from 2020-2023 were reviewed from our institutional database. Data included demographics, medical and psychiatric history, intraoperative details, and postoperative outcomes. Fisher's exact test was used to compare complications among patients when sorted by primary or revision surgery, mental health history, and management of mental health. Complications were analyzed as time to event outcomes with rates compared using Kaplan-Meier methods. Multivariable logistic regression was used to measure the effect of mental health on complications while controlling for potential confounders.

Results: 284 cases were reviewed. Preoperative diagnosis of anxiety or depression was significantly associated with postoperative complication ($p=0.0021$). This association was significant for revision surgeries in patients with depression ($p=0.0094$), but not for primary surgeries. Anxiety was associated with postoperative complications for both primary ($p=0.464$) and revision surgeries ($p=0.0177$), as well as increased reoperation rate ($p=0.0369$). Preexisting mental health conditions were associated with an odds ratio of 3.113 (1.283-7.608) for complications in a multivariable logistic regression model that includes age, BMI, diabetes, primary or secondary surgery, smoking status, and correctly holding anticoagulation. Survival analysis showed diagnoses of anxiety ($p=0.0008$) or depression ($p=0.0004$) resulted in a shorter time to identification of complication.

Conclusion: Preexisting anxiety or depression is associated with postoperative complications after penile prosthesis placement, with shorter time to development. Urologists should consider mental health assessment as part of preoperative planning and counseling.

Funding: n/a

Podium #7

CREATION OF A NOVEL CLASSIFICATION SYSTEM (PTNM) FOR PEYRONIE'S DISEASE AND PENILE CURVATURE USING EVIDENCE-BASED CRITERIA

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Presented By: William Patrick Fuell, MD

Introduction: Our goal was to identify new Peyronie's disease (PD) subtypes, non-PD penile curvature classifications, and define active (acute) vs stable (chronic) phases of disease using evidence-based analyses.

Methods: A retrospective review was performed of 1098 men who presented with penile deformity, including subjective standardized and non-standardized questionnaires and objective measures. A second cohort of 719 men who were sent a mailed survey was also utilized for the relapsing/remitting subtype. Statistical analyses were performed to identify clusters of disease characteristics representative of distinct PD and non-PD categorizations, including sensitivity/specificity analyses and subtype comparisons.

Results: Comparative analyses identified 4 distinct subtypes of PD: (1) classical and nonclassical, (2) calcifying—moderate/severe calcification, (3) progressive—subjective worsening following disease onset, and (4) relapsing/remitting—reactivation following ≥ 6 months of stability. Additional, non-PD categorizations included congenital (lifelong), maturational (developed around puberty), and trauma induced. Statistical analyses demonstrated unique profiles among each category. Penile pain was not found to be a reliable predictor for disease progression or stability. Stable phase disease (historically "chronic") was variably defined by subtype: classical (≥ 3 months), progressive, calcifying, or trauma induced (≥ 12 months + ≥ 3 months stable OR ≥ 6 months stable). Similarly, PD subtypes may be assigned at ≥ 3 months following disease onset. A PTNM staging system is proposed to help communicate disease states, in which P = PD component (Ca – calcifying, Cl – classical, P – progressive, R – relapsing/remitting, U – undifferentiated); T = trauma component (0 – absent, 1 – present); N = non-PD component (C – congenital, M – maturational, U – undifferentiated); and M = mode (0 – stable, 1 – active); for example, PCIT1N0M0 = stable classical PD with prior trauma.

Conclusion: The current study provides an evidence-based proposal for the establishment of new PD subtypes and non-PD curvature categorizations as well as a standardized definition for active vs stable phases of disease.

Funding: N/A

Podium #8

HOW OFTEN DO PATIENTS ELECT SURGERY FOLLOWING XIAFLEX TREATMENT FOR PEYRONIE'S DISEASE?

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Presented By: Jared John Schommer, PhD, MD

Introduction: Peyronie's disease (PD) is a fibrosing condition of the tunica albuginea characterized by a palpable plaque with varying impacts on the patient's erection: curvature, shortening, indentations, hinging, and concentric narrowing. Stepwise intralesional injection of collagenase clostridium histolyticum (Xiaflex) is the only FDA approved medical treatment for PD. We retrospectively reviewed Xiaflex treated patients for satisfaction with therapy or pursuit of subsequent surgery.

Aim: To assess global satisfaction with intralesional Xiaflex based on whether or not patients elected subsequent surgery.

Methods: This is a retrospective review of patients presenting with PD to a single center and managed by a single provider with six-month follow-up after treatment. Patient presentations were recorded in an Institutional Review Board approved database. Data storage and analytics were conducted using REDCap.

Results: The cohort for this study was 118 men treated with intralesional Xiaflex. 55.8% of patients (62/111) were satisfied with Xiaflex outcomes and sought no further therapy. 44.1% of patients (49/111) were not satisfied with their outcomes and 7 did not respond to survey. Of the patients not satisfied with treatment, 38/49 (77%) elected subsequent surgical interventions: 13 penile plications, 7 incision and grafting and 18 inflatable penile prostheses. 52.5% of patients had full (8) Xiaflex treatment. Among the 62 who had full Xiaflex treatment, 11.9% had surgery after Xiaflex. Among the patients who had partial Xiaflex treatment 17.8% had surgery following Xiaflex. The degrees of curvature in patients receiving Xiaflex was: < 60 (n=63), ≥ 60 48) and hourglass deformity (n=6).

Conclusion: If successful medical management of Peyronie's disease is defined by men who do not seek subsequent surgical intervention following therapy, Xiaflex was highly successful. In our series of 118 patients, 32.2% sought surgical interventions following intralesional collagenase histolyticum.

Funding: N/A

Podium #9

IMMUNOASSAY DISCREPANCIES IN MEASUREMENT OF TESTOSTERONE LEVELS: UNDERESTIMATION OF TRUE TESTOSTERONE MAY RESULT IN OVER-TREATMENT WITH TESTOSTERONE REPLACEMENT THERAPY

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Presented By: Kimberly Waggener, MD

Introduction: AUA guidelines define testosterone deficiency as two levels < 300 ng/dL with signs/symptoms. Testosterone (T) measurement is performed using immunoassays (IA) or mass spectrometry (MS), with MS as the gold standard. However, limited data suggests there may be significant variation between assays, which may have implications for initiation and cessation of testosterone replacement therapy (TRT). The objective was to examine variation in testosterone assays and men at risk for unnecessary TRT treatment.

Methods: After IRB approval, we identified men with the following ICD10 codes: T deficiency, hypogonadism, or erectile dysfunction. Men with the following labs drawn simultaneously were included: testosterone (IA), testosterone (MS), prostate specific antigen (PSA), free PSA, estradiol, luteinizing hormone (LH), and follicle stimulating hormone (FSH). Assays were compared and men were assessed for risk of potentially unnecessary TRT based on having an IA T < 300 and MS T > 300 ng/dL.

Results: 235 men (median age of 58.0 [IQR: 52] years old; BMI of 30.8 [IQR: 6.1]) underwent 328 serum assessments. The median T for IA versus MS were 275.0 (IQR: 217.2) and 346.0 (IQR: 288) ng/dL respectively ($p < 0.0001$). When dividing the IA labs into 100 ng/dL groups with their paired MS results, there was a significant difference ($p < 0.05$) across all groups except IA levels less than 100 ng/dL ($p > 0.05$). Men with IA T levels in the range of 201-300 were assessed for being at risk for TRT. 57.6% ($n = 53$) of measurements for men were at risk for unwarranted TRT. Testosterone to estradiol (T:E) ratios were compared. The median ratios for IA/MS were 10.8 (IQR: 6.7) and 13.9 (IQR: 9.2) respectively ($p < 0.001$). When examining those at risk for aromatase inhibitor (AI) therapy based on a 10:1 T:E ratio 16.3% ($n = 36$) had an IA T:E ratio < 10:1 and MS T:E ratio > 10:1.

Conclusion: There is significant variability in T results between IA vs. MS assays. Utilization of IA may lead to overtreatment with TRT or AI therapy compared to MS assays. Urologists should be aware of these discrepancies as they consider diagnostic options and treatment of men with TD.

Funding: N/A

Testosterone Range (ng/dL) (IA)	Immunoassay (Median, IQR)	Mass Spectrometry (Median, IQR)	p-value
0-100	69.5; 50.3	94.5; 62.3	> 0.05
101-200	157.0; 51.0	189.0; 77.0	< 0.05
201-300	243.0; 54.0	303.0; 80.0	< 0.05
301-400	337.0; 46.2	420.0; 80.5	< 0.05
401-500	440.0; 46.0	592.0; 120.0	< 0.05
501-600	549.5; 56.3	689.4; 103.2	< 0.05
601-700	662.0; 61.0	829.0; 167.5	< 0.05
> 700	792.0; 181.5	1115; 326.2	< 0.05

Table 1. Stratification of immunoassay results by 100 ng/dL increments with paired MS results. Data is displayed as median, interquartile range (IQR) with $p < 0.05$ as statistically significant.

Podium #10

TAR-200 IN PATIENTS WITH BACILLUS CALMETTE-GUÉRIN-UNRESPONSIVE HIGH-RISK NON-MUSCLE-INVASIVE BLADDER CANCER: RESULTS FROM SUNRISE-1 STUDY

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Presented By: Joseph Jacob, MD, MCR

Introduction: Patients with Bacillus Calmette-Guérin (BCG)-unresponsive high-risk non-muscle-invasive bladder cancer (HR NMIBC) are at high risk of disease progression and have limited treatment options. TAR-200, an intravesical drug delivery system, is designed to provide sustained release of gemcitabine in the bladder. SunRISe-1 (NCT04640623) is an ongoing, randomized, phase 2b study assessing efficacy and safety of TAR-200 + cetrelimab (anti-PD1) (Cohort 1 [C1]), TAR-200 alone (C2), or cetrelimab alone (C3) in patients with BCG-unresponsive HR NMIBC with carcinoma in situ (CIS) ± papillary disease, ineligible for/refusing radical cystectomy. TAR-200 alone is also being assessed in patients with papillary disease only (C4). We report C2 results.

Methods: Eligible patients aged ≥18 years had histologically confirmed CIS ± papillary disease (high-grade Ta, any T1) after adequate BCG, and ECOG PS 0-2. TAR-200 was dosed every 3 weeks through Week 24, then every 12 weeks until Week 96. Response was assessed by cystoscopy and centrally-assessed urine cytology, CT/MRI, and bladder biopsy (Weeks 24, 48, and as clinically indicated). The primary end point was overall complete response (CR) rate. Secondary end points included duration of response (DOR) and safety.

Results: At data cutoff (January 2, 2024), 85 patients (median age, 71 years; range, 40-88; concurrent papillary disease, 33%) received TAR-200 monotherapy. Fifty-eight patients were efficacy evaluable. Centrally-confirmed CR rate was 83% (95% CI, 71-91) by urine cytology and/or biopsy. The estimated 1-year DOR rate is 75% (95% CI 50-88), with median follow-up in responders of 30 weeks (range, 14-140); 41 of 48 responders (85%) remain in CR at data cutoff. Forty-seven of 48 (98%) CRs were achieved at first disease assessment at Week 12. CR rate by investigator assessment (86%; 95% CI, 75-94) correlated strongly with central results. Sixty-one patients (72%) had treatment-related adverse events (TRAEs); the most common (≥10%) were pollakiuria (35%), dysuria (29%), micturition urgency (15%), urinary tract infection (15%). Seven patients (8%) had grade ≥3 TRAEs; 4 (5%) had serious TRAEs, 4 (5%) had TRAEs leading to discontinuation. No treatment-related deaths were reported.

Conclusion: In SunRISe-1, TAR-200 monotherapy is associated with a clinically meaningful, high, centrally-confirmed CR rate, durable responses, and a favorable benefit-risk profile in patients with BCG-unresponsive CIS.

Funding: Janssen Research Development

Podium #11

FIRST-IN-HUMAN STUDY OF TAR-210 ERDAFITINIB INTRAVESICAL SYSTEM IN PATIENTS WITH NON-MUSCLE-INVASIVE BLADDER CANCER WITH SELECT FGFR ALTERATIONS

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Presented By: Gautam Jayram, MD

Introduction: Treatment options are limited for recurrent non-muscle-invasive bladder cancer (NMIBC). Activating fibroblast growth factor receptor genetic alterations (FGFRalt) are frequent in NMIBC. Oral erdafitinib, a selective pan-FGFR tyrosine kinase inhibitor, demonstrated robust clinical efficacy in NMIBC but had frequent systemic side effects. TAR-210 is a novel erdafitinib intravesical system designed to provide local, sustained release of erdafitinib within the bladder over 12-week cycles while limiting systemic toxicities. This open-label, multicenter phase 1 study (NCT05316155) evaluates the safety, pharmacokinetics (PK), and efficacy of TAR-210 in patients with NMIBC whose tumors harbor select FGFRalt.

Methods: Study-qualifying FGFRalt were identified in tumor tissue and/or urine cell-free DNA. Cohort 1 (C1) patients had recurrent, Bacillus Calmette–Guérin-experienced high-risk NMIBC (high-grade Ta/T1; papillary only) and refused or were ineligible for radical cystectomy. Cohort 3 (C3) patients had recurrent, intermediate-risk NMIBC (Ta/T1) with a history of only low-grade papillary disease. Before treatment, C1 required resection of all visible NMIBC; C3 required the presence of visible tumor. Two TAR-210 dose levels were evaluated. Response is assessed every 3 months with continued treatment for up to 1 year if recurrence free (C1) or in complete response (CR) (C3).

Results: As of January 15, 2024, 21 patients in C1 and 35 in C3 have been treated. In C1, the estimated 12-month recurrence-free survival (RFS) rate was 88%; 28 patients in C3 were efficacy evaluable with a CR rate of 93% (Table). CR are ongoing in 24/26 (92%) patients. The most common treatment-related adverse events (TRAEs) were grade 1/2 lower urinary tract events. There were no dose-limiting toxicities or deaths. Two patients discontinued treatment due to adverse events, and 1 patient had serious grade 3 pyelonephritis/sepsis related to the insertion/removal procedure. PK data showed sustained erdafitinib concentrations in urine with very low plasma exposures.

Conclusion: TAR-210 appears safe and well tolerated with manageable, predominantly low-grade urinary tract TRAEs, and elicits high CR and RFS rates in patients with NMIBC and select FGFRalt. Data for durability continue to mature. A recommended phase 2 dose has been selected and a phase 3 study in intermediate-risk NMIBC is enrolling.

Funding: Janssen Research Development, LLC

Podium #12

ENCORE RESULTS: BOND-003 COHORT C- A PHASE 3, SINGLE-ARM STUDY OF INTRAVESICAL CRETOSTIMOGENE GRENADENOREPVEC FOR BCG-UNRESPONSIVE HIGH-RISK NON-MUSCLE INVASIVE BLADDER CANCER WITH CARCINOMA IN SITU

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Presented By: Shreyas S. Joshi, MD, MPH

Introduction: Considerable unmet medical need exists for clinically effective, well-tolerated, and readily available bladder-sparing treatment options for patients with BCG-Unresponsive High-Risk Non-Muscle Invasive Bladder Cancer with Carcinoma in Situ (BCG-UR HR NMIBC with CIS). Cretostimogene is an oncolytic immunotherapy designed to selectively replicate in bladder cancer cells with Retinoblastoma (Rb)-E2F pathway alterations. In addition, cretostimogene expresses GM-CSF adding to local and systemic cancer control. Cretostimogene has received both US FDA Fast Track and Breakthrough Therapy Designations for the BCG-UR HR NMIBC with CIS indication.

Methods: 112 adults with histologically confirmed BCG-UR HR NMIBC with CIS were enrolled. Participants had previously received adequate BCG and were BCG-UR HR NMIBC by the FDA definition. Cretostimogene treatment consisted of 6 weekly doses during the induction phase, followed by 3 weekly maintenance cycles at months 3, 6, 9, 12 and 18. Participants were eligible for repeat induction therapy at Month 3, if persistent HG Ta or CIS was noted at biopsy. Response assessments included serial cystoscopy, urine cytology, axial imaging, and mandatory mapping biopsy at Month 12, with centralized review of all pathology. The primary outcome measure was Complete Response (CR) at any time. Other secondary and exploratory endpoints were also assessed.

Results: Currently, in the evaluable population, cretostimogene achieved a 75.2% CR at any time (95% CI 65.7-82.9%). Moreover, a significant majority of patients demonstrated ongoing complete responses at 12 months, suggesting strong durability. Cretostimogene has a favorable and well-tolerated safety profile, with most adverse events being mild genitourinary symptoms. Updated results, including CR at any time, longer term response rates (12 and 24-month CR), Duration of Response (DoR), Cystectomy-Free Survival (CFS), Progression-Free Survival (PFS), safety, and tolerability will be presented.

Conclusion: The efficacy and safety of intravesical cretostimogene for the treatment of BCG-UR HR NMIBC with CIS, with or without Ta/T1 tumors, compares favorably to existing FDA-approved therapies. Ongoing investigation of this promising monotherapy, as well as future combinations, is warranted and may address a considerable unmet need for bladder cancer patients.

Funding: CG Oncology, Inc.

Podium #13

TARGETING GEMCITABINE RESISTANCE IN BLADDER CANCER VIA A BIOMARKER-GUIDED PATHWAY

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Presented By: Joshua Van der Eerden

Introduction: Precision-base treatment approaches could improve the prognosis of patients with bladder cancer (BC). We recently discovered a first-in-class human Chondroitinase (Chase), a splice variant of HYAL4 (V1) that degrades chondroitin sulfate and promotes both a malignant phenotype and chemoresistance in BC cells. We evaluated V1/Chase expression and effects in BC as well as inhibitors to overcome V1/Chase-mediated Gemcitabine (Gem) resistance.

Methods: Cohort 1: 653 voided urine specimens (BC, 160; non-BC, 493); cohort 2: 40 cystectomy specimens from MIBC patients who received adjuvant Gemcitabine plus cisplatin (G+C) treatment. Gene expression was measured by q-PCR and urine was assayed by the Chase test. V1 was either expressed or silenced in BC cell lines and the transfectants were analyzed for sensitivity to Gem and Cisplatin. The mechanism of Gem resistance was evaluated using preclinical in vitro and in vivo models.

Results: In cohort 1, Chase levels were 7-10-fold elevated in patients with BC compared to patients with benign genitourinary conditions, history of BC, or other cancers. Chase test detected BC with 94.4% sensitivity and 87.4% specificity. The Chase test had an 84% accuracy in correctly diagnosing the cases with atypical cytology. The stem cell marker CD44 was the major substrate of Chase in BC cells. V1's Chase activity induced CD44 cleavage and shedding, activating the JAK2/Stat3 pathway and upregulating cytidine deaminase. CDA induces Gem metabolism and efflux of dFdU, an inactive Gem metabolite. HPLC analysis showed that V1 transfectants have increased levels of dFdU with higher efflux. STAT3 and CDA inhibitors synergistically re-sensitized V1-expressing cells to Gem. In cohort 2, V1, p-JAK2 and CDA expression predicted failure to G+C treatment ($P < 0.0001$). JAK2, STAT3 and CDA inhibitors synergistically re-sensitized V1-expressing cells to Gem. While V1-expressing tumors were resistant, a combination of Gem with a CDA or JAK-2 inhibitor abrogated V1 tumor growth with minimal toxicity.

Conclusion: V1/Chase is a potential diagnostic and prognostic biomarker for bladder cancer, driving muscle-invasion, metastasis and Gem resistance in BC. Inhibitors of the Chase signaling pathway can overcome V1-induced Gem resistance, suggesting a precision-based treatment approach to improve treatment response.

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Podium #14

UTILIZING THE GERIATRIC ASSESSMENT IN PREHABILITATION EVALUATION PRIOR TO RADICAL CYSTECTOMY

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Presented By: Anthony Joseph Teixeira, BA

Introduction: Prehabilitation is a process that prepares patients for the stress of major surgery through tailored nutritional, physical, and psychological interventions, starting with a thorough clinical assessment. Programs often involve comprehensive assessment of baseline functional status, which is understudied among patients undergoing cystectomy. Debate exists over which structured assessments are most appropriate. We present the use of the Geriatric Assessment (GA) to evaluate the risk profile of patients with bladder cancer referred for prehabilitation prior to radical cystectomy at a large cancer center.

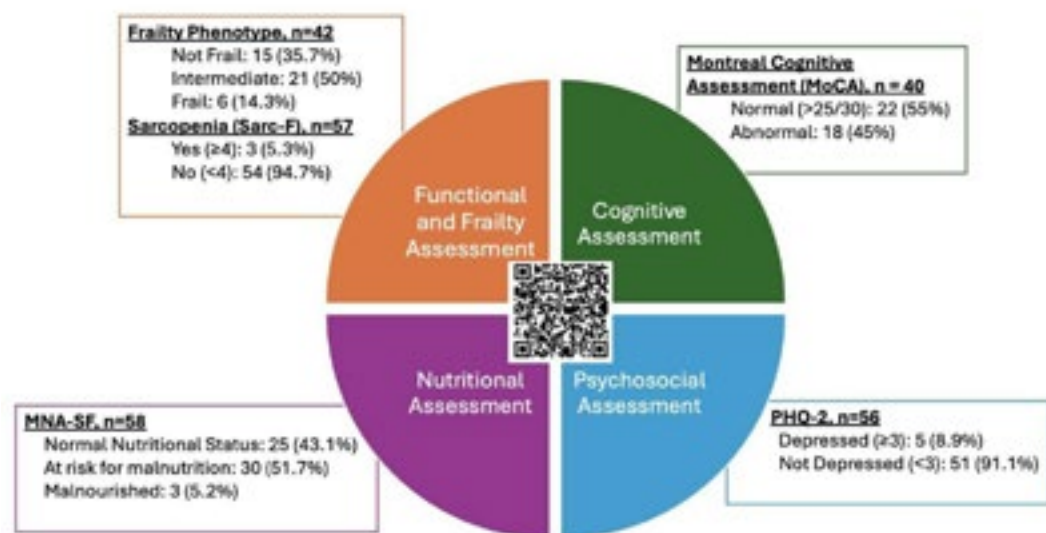
Methods: A retrospective review was conducted of patients with bladder cancer who underwent radical cystectomy and participated in the prehabilitation program between February 2021 to June 2024. Prehabilitation was offered to all patients undergoing cystectomy, and patients who did not complete an initial prehabilitation consultation were excluded. The baseline prehabilitation assessment utilized the GA, which uses validated tools to assess frailty, sarcopenia, nutrition, depression, and cognition (Figure 1). Results of the GA were summarized with frequencies and proportions.

Results: During the study period, 64 patients scheduled a prehabilitation consultation and 58 patients attended their appointment. The median age of patients undergoing prehabilitation was 71.5 years (range 52-88), with 79% male and 86% White. Results of the GA are shown in Figure 1. We found that 50% (21/42) of patients were of intermediate frailty and 14% (6/42) were frail. Additionally, 5% (3/57) of patients had sarcopenia. 45% (18/40) of patients had cognitive impairment. Regarding nutrition, 52% (30/58) of patients were at risk of malnutrition, and another 5% (3/58) were malnourished. Finally, 9% (5/56) of patients screened positive for depression.

Conclusion: The use of validated tools in geriatric assessment is appropriate in conducting comprehensive evaluations to provide tailored, multimodal prehabilitation interventions. The high prevalence of frailty, malnutrition, and cognitive impairment in patients with bladder cancer underscores the importance of multidisciplinary assessment and interventions prior to cystectomy. Identifying and quantifying baseline functional status is important in discussing treatment options and surgical risk. Future studies involving pre- and post-assessments are warranted to determine risk mitigation strategies inherent to prehabilitation ability.

Funding: N/A

Figure 1: Geriatric Assessment Tools and Profile Summary of Patients that Participated in the Prehabilitation Program



Podium #15

LONG-TERM OUTCOMES OF PRIMARY CHEMOABLATION OF LOW-GRADE UPPER TRACT UROTHELIAL CARCINOMA (LG-UTUC) WITH UGN-101, A MITOMYCIN REVERSE THERMAL GEL

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Presented By: Alon Z. Weizer, MD, MS

Introduction: Endoscopically guided ablation is commonly used to treat low-grade upper tract urothelial carcinoma (LG-UTUC). While effective, ablation is not typically durable, requiring long-term endoscopic surveillance associated with potential complications. Topical adjuvant aqueous chemotherapy has a modest effect on disease recurrence following local ablation. We report data from a non-interventional study (BL007) to follow the long-term outcomes of patients who achieved complete response (CR) following treatment with UGN-101, a reverse thermal gel containing 4 mg mitomycin per mL, in the phase 3 OLYMPUS trial.

Methods: Patients who participated in the OLYMPUS trial and achieved a CR after 6 weekly doses of UGN-101 were followed up to 12 months after initial CR. Those with CR at study completion were eligible for long-term follow-up in BL007. Outcomes included duration of response (DoR) and disease recurrence or progression. There was no protocol-specified intervention or treatment, and there were no protocol-specified visits or evaluations. Supervising physicians provided semiannual updates on patients' disease status.

Results: Of the 71 patients enrolled in OLYMPUS (68% male, 87% White, median age 71 years), 42 achieved CR 4–6 weeks after the last dose of UGN-101, approximately 3 months after study start. Among 41 patients followed after initial CR (1 withdrew consent), median follow-up was 28.1 months (95% CI 13.1–57.5); median DoR was 47.8 months (95% CI 13.0–not estimable [NE]). Twenty patients (49%) had long-term follow-up in BL007 (median 53.3 months [95% CI 27.9–65.3]); 75% had no evidence of recurrence at the last follow-up, with median DoR NE (95% CI 43.5–NE) due to a low event rate. Of the patients evaluated in BL007, 2 (10%) experienced UC tumor recurrence and 3 (15%) died: 2 due to unknown reasons and 1 due to septic shock from E.coli bacteremia and acute hypoxemic respiratory failure; no deaths were related to study treatment. There were no reported progressions to high-grade disease.

Conclusion: Patients with LG-UTUC who achieved CR after receiving primary chemoablation therapy with UGN-101 experienced excellent long-term response, with a median DoR of almost 4 years. These favorable durability data augment a growing body of literature supporting the use of UGN-101 as primary treatment for LG-UTUC.

Funding: UroGen Pharma

Podium #16

DURABILITY OF NADOFARAGENE FIRADENOVEC-VNCG RESPONSE IN PARTICIPANTS WITH BACILLUS CALMETTE-GUÉRIN-UNRESPONSIVE NON-MUSCLE-INVASIVE BLADDER CANCER: 36- AND 57-MONTH FOLLOW-UP OF A PHASE 3 STUDY

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Presented By: Amy N. Luckenbaugh, MD, FACS

Introduction: Nadofaragene firadenovec-vnvg is an intravesical gene therapy for Bacillus Calmette–Guérin (BCG)-unresponsive non-muscle-invasive bladder cancer (NMIBC) with carcinoma in situ (CIS) with/without papillary tumors (\pm Ta/T1). In a phase 3 study, 53.4% (55/103) of participants with CIS \pm Ta/T1 (CIS cohort) achieved a complete response (CR) at 3 months and 72.9% (35/48) of participants with high-grade Ta/T1 (high-grade Ta/T1 cohort) were high-grade recurrence-free (HGRF) at 3 months. Results from 36 and 57 months of follow-up are reported.

Methods: Participants with BCG-unresponsive NMIBC (N=157) were enrolled: 107 in the CIS cohort and 50 in the high-grade Ta/T1 cohort. Efficacy analyses included 103 participants in the CIS cohort and 48 participants in the high-grade Ta/T1 cohort who met protocol definitions of BCG-unresponsive NMIBC. Participants received nadofaragene firadenovec every 3 months with cystoscopy and cytology assessments, with biopsy if indicated. Mandatory biopsies of selected sites were taken at 12 months after the first dose. Participants remaining HGRF at 12 months could continue treatment every 3 months at investigator discretion.

Results: 13/107 (12.1%) and 5/107 (4.7%) participants in the CIS cohort and 10/50 (20.0%) and 7/50 (14.0%) participants in the high-grade Ta/T1 cohort received nadofaragene firadenovec at 36 months and 57 months, respectively. Among participants in the CIS cohort with a CR at 3 months and participants in the high-grade Ta/T1 cohort who were HGRF at 3 months after the first dose of nadofaragene firadenovec, 14/55 (25.5%) participants in the CIS cohort and 11/35 (31.4%) participants in the high-grade Ta/T1 cohort remained HGRF through 36 months. Nadofaragene firadenovec provided sustained durable response through 57 months in 6/55 (10.9%) participants in the CIS cohort and 7/35 (20.0%) participants in the high-grade Ta/T1 cohort. Through 5 years of follow-up, 42/103 (40.8%) participants in the CIS cohort and 14/48 (29.2%) participants in the high-grade Ta/T1 cohort underwent cystectomy. No new safety signals were observed through 57 months of follow-up.

Conclusion: Nadofaragene firadenovec administered intravesically every 3 months demonstrated durable response rates through 36 and 57 months in a proportion of participants with BCG-unresponsive NMIBC. No new safety signals were observed through 5 years of monitoring following the first dose of nadofaragene firadenovec.

Funding: Ferring Pharmaceuticals

Podium #17

ASSESSING HEMATURIA SCREENING DISPARITIES USING THE ALL OF US DATABASE

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Presented By: Jonathan Ryan

Introduction: The impact of racial disparities has not been well described in hematuria evaluation. Our objective was to assess the impact of racial and gender disparities in the evaluation of hematuria using the All of Us prospective clinico-genomic database composed of a diverse population.

Methods: To include a group of patients who were evaluated for hematuria, we included patients with >3 RBC/HPF on urinalysis or those with a diagnosis code of gross hematuria in the database. We excluded patients with other likely causes, i.e., those who were pregnant at the time of urinalysis, had a UTI at urinalysis, or had a prior history of bladder, kidney, or ureter cancer or urolithiasis before the urinalysis was completed. Patients were categorized based on the current 2020 AUA guidelines: low risk (3-10 RBC on urinalysis), moderate risk (11-25 RBC on urinalysis), and high risk (>25 RBC on urinalysis or a diagnosis code of gross hematuria). All possible genitourinary (GU) imaging was included: CT urogram, MRI urogram, and renal/bladder ultrasound. Univariate logistic regression was utilized for these groups.

Results: A total of 34,042 patients were eligible for inclusion: 54% White, 18% Black, 26% Hispanic, 2.4% Asian; 32% male and 68% female. Of 11,638 hematuria patients with imaging, 44% had a CT urogram, 23% an MRI urogram, and 63% a renal/bladder ultrasound. Across all patients with hematuria, 11.1% had a cystoscopy, 32.1% GU imaging, and 8.5% both. Women had lower screening rates than men for cystoscopy (OR = 0.36, CI: [0.34, 0.39]), GU imaging (OR = 0.55, CI: [0.52, 0.57]), and both (OR = 0.56, CI: [0.52, 0.6]). Minorities had lower overall screening rates for cystoscopy, imaging, and combined modalities. While more severe hematuria increased testing overall, minorities in the high-risk group had lower screening rates than White patients, with Asians and Hispanics having the lowest rates.

Conclusion: All minorities appear to face disparities in the evaluation of hematuria compared to White patients. These disparities are more evident in high-risk patients with a higher degree of hematuria. In these high-risk patients, Hispanics and other minorities are less likely to undergo initial diagnostic tests or a comprehensive evaluation with both cystoscopy and imaging.

Funding: N/A

Factor	Level	% of patients with cystoscopy	OR [95% CI]	% of patients with GU imaging	OR [95% CI]	% Patients with GU imaging and Cystoscopy	OR [95% CI]
Low Risk	White (Ref)	10.13%	-	29.78%	-	7.94%	-
	Black	7.71%	0.74 [0.65, 0.85]	30.34%	1.02 [0.95, 1.1]	6.39%	0.79 [0.69, 0.92]
	Hispanic	8.96%	0.87 [0.78, 0.98]	29.34%	0.98 [0.91, 1.1]	8.23%	1.04 [0.92, 1.2]
	Asian	7.89%	0.76 [0.55, 1.05]	21.80%	0.66 [0.53, 0.81]	5.83%	0.72 [0.50, 1.04]
	Total	9.27%	-	29.57%	-	7.64%	-
Medium Risk	White (Ref)	15.84%	-	38.97%	-	13.06%	-
	Black	10.63%	0.63 [0.51, 0.78]	37.83%	0.95 [0.83, 1.1]	8.96%	0.66 [0.53, 0.82]
	Hispanic	11.18%	0.67 [0.56, 0.80]	35.53%	0.86 [0.76, 0.98]	11.18%	0.84 [0.69, 1.01]
	Asian	11.05%	0.66 [0.41, 1.07]	30.81%	0.70 [0.50, 0.97]	8.72%	0.64 [0.37, 1.09]
	Total	13.32%	-	37.55%	-	11.55%	-
High Risk	White (Ref)	19.06%	-	42.61%	-	14.88%	-
	Black	14.19%	0.70 [0.62, 0.79]	40.50%	0.92 [0.84, 0.99]	11.55%	0.75 [0.66, 0.85]
	Hispanic	8.81%	0.41 [0.37, 0.46]	32.50%	0.65 [0.60, 0.70]	7.64%	0.47 [0.42, 0.53]
	Asian	10.72%	0.51 [0.36, 0.72]	28.99%	0.55 [0.43, 0.70]	7.25%	0.45 [0.30, 0.67]
	Total	15.25%	-	39.17%	-	12.17%	-

Table 2: Univariate logistic regression was conducted for the percentage of patients who had either a cystoscopy, GU imaging, or both, separated by race and the degree of hematuria. Low risk was defined as 3-10 RBC, medium risk as 10-25 RBC, and high risk as >25 RBC or a diagnosis of gross hematuria.

Podium #18

IMPACT OF SURGICAL WAITING TIME ON THE OUTCOMES OF PATIENTS WITH PRIMARY UPPER TRACT UROTHELIAL CARCINOMA: RESULTS FROM THE ROBUUST 2.0 COLLABORATIVE GROUP

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Presented By: Alireza Ghoreifi, MD

Introduction: Studies on patients with upper tract urothelial carcinoma (UTUC) have demonstrated conflicting results regarding the impact of surgical waiting time (SWT) on postoperative outcomes. This study aims to evaluate the effect of SWT on the long-term outcomes of patients with UTUC undergoing curative surgery.

Methods: A retrospective analysis was performed on patients who underwent surgery with curative intent for UTUC, using the ROBUUST 2.0 database, a multi-institutional collaborative including 17 centers worldwide. Cox regression was used to assess the effect of SWT on patient outcomes. SWT was defined as the time between initial diagnosis and extirpative surgery and was stratified into <1 month, 1-3 months, and >3 months. The primary and secondary outcomes were recurrence-free survival (RFS) and overall survival (OS), respectively. A subgroup analysis was performed on those who did not receive neoadjuvant chemotherapy (NAC)

Results: A total of 2,124 patients enrolled in this study. The rate of NAC was significantly higher among those with a SWT of >3 months compared to others. Additionally, with increased SWT, there were significantly higher rates of high-grade tumors in final pathology, node positivity, tumor multifocality, and positive surgical margins. On multivariable analysis, tumor multifocality (Hazard ratio [HR] 1.29, P= 0.03), and high-grade pathology (HR 1.39, P= 0.02) were independently associated with worse RFS, but SWT ≥3 months showed a borderline association (HR 1.32, P=0.05) (Table 1A). Nevertheless, SWT ≥3 months (HR 1.85, P=0.01), higher age (HR 1.04, P<0.001), ECOG ≥1 (HR 1.59, P=0.01), tumor multifocality (HR 1.66, P= 0.004), lymphovascular invasion (HR 2.5, P<0.001), pT stage ≥T2 (HR 1.72, P=0.004), and pN+ vs pN0 (HR 2.02, P=0.002), were independent predictors of worse OS (Table 1B). Similar associations were observed in the non-NAC subgroup.

Conclusion: Delayed surgery more than 3 months after the diagnosis of UTUC is associated with worse long-term outcomes, irrespective of receiving NAC. Prospective studies are warranted to validate these findings.

Funding: N/A

Table 1: Multivariable Cox regression analyses of factors affecting (A) recurrence-free survival (RFS) and (B) overall survival (OS).

AJ RFS	All patients		Non-NAC group	
	HR (95% CI)	P	HR (95% CI)	P
Age, year (continuous)	1 (0.99 - 1.01)	0.82	1 (0.99 - 1.01)	0.80
Neoadjuvant chemotherapy	0.96 (0.68 - 1.34)	0.81		
Adjuvant systemic therapy	1.07 (0.83 - 1.38)	0.6	0.99 (0.72 - 1.35)	0.97
Multifocality of tumor	1.39 (1.02 - 1.92)	0.03	1.23 (0.89 - 1.69)	0.11
Tumor grade (high vs low)	1.39 (1.01 - 1.94)	0.02	1.43 (1.00 - 2.02)	0.05
Lymphovascular invasion	0.81 (0.62 - 1.07)	0.16	0.82 (0.62 - 1.1)	0.18
Positive surgical margin	1.09 (0.74 - 1.61)	0.65	0.97 (0.68 - 1.47)	0.88
pT stage (≥ T2 vs < T2)	1.25 (0.95 - 1.64)	0.08	1.25 (0.97 - 1.61)	0.08
pN stage				
N+ vs N0	1.16 (0.8 - 1.69)	0.42	1.03 (0.69 - 1.54)	0.89
N+ vs N0	0.77 (0.64 - 0.94)	0.02	0.75 (0.57 - 0.99)	0.05
Surgical waiting time				
0-3 months vs < 1 month	1.16 (0.88 - 1.52)	0.29	1.17 (0.89 - 1.53)	0.25
≥ 3 months vs < 1 month	1.32 (1 - 1.74)	0.05	1.28 (0.96 - 1.71)	0.09

B) OS	All patients		Non-NAC group	
	HR (95% CI)	P	HR (95% CI)	P
Age, year (continuous)	1.04 (1.02 - 1.05)	< 0.001	1.04 (1.02 - 1.06)	< 0.001
ECOG performance (1)	1.59 (1.13 - 2.24)	0.01	1.59 (1.08 - 2.34)	0.02
Neoadjuvant chemotherapy	1.38 (0.86 - 2.23)	0.18		
Adjuvant systemic therapy	1.24 (0.86 - 1.77)	0.25	1.23 (0.84 - 1.84)	0.27
Multifocality of tumor	1.66 (1.17 - 2.34)	0.004	1.82 (1.34 - 2.47)	0.002
Tumor grade (high vs low)	1.06 (0.67 - 1.70)	0.82	1.08 (0.59 - 1.95)	0.80
Lymphovascular invasion	2.5 (0.72 - 9.62)	< 0.001	2.45 (1.64 - 3.65)	< 0.001
Positive surgical margin	2.31 (1.46 - 3.64)	< 0.001	1.94 (1.34 - 2.82)	0.01
pT stage (≥ T2 vs < T2)	1.72 (1.19 - 2.49)	0.004	2.1 (1.41 - 3.14)	< 0.001
pN stage				
N+ vs N0	2.04 (1.3 - 3.2)	0.002	1.94 (1.37 - 2.75)	0.01
N+ vs N0	1.01 (0.68 - 1.51)	0.97	0.88 (0.57 - 1.35)	0.56
Surgical waiting time				
0-3 months vs < 1 month	1.39 (0.9 - 2.17)	0.14	1.46 (0.99 - 2.2)	0.14
≥ 3 months vs < 1 month	1.88 (1.18 - 2.99)	0.01	1.79 (1.1 - 2.89)	0.02

NAC: neoadjuvant chemotherapy; ECOG: Eastern Cooperative Oncology Group.

Podium #19

THE RID SCORE FOR BPH: USING THE NOVEL REZUM INJECTION DENSITY SCORE TO PREDICT TRANSURETHRAL WATER VAPOR THERAPY SUCCESS, A PROSPECTIVE COHORT STUDY

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Presented By: Rafael Brito Sánchez, MD, BS

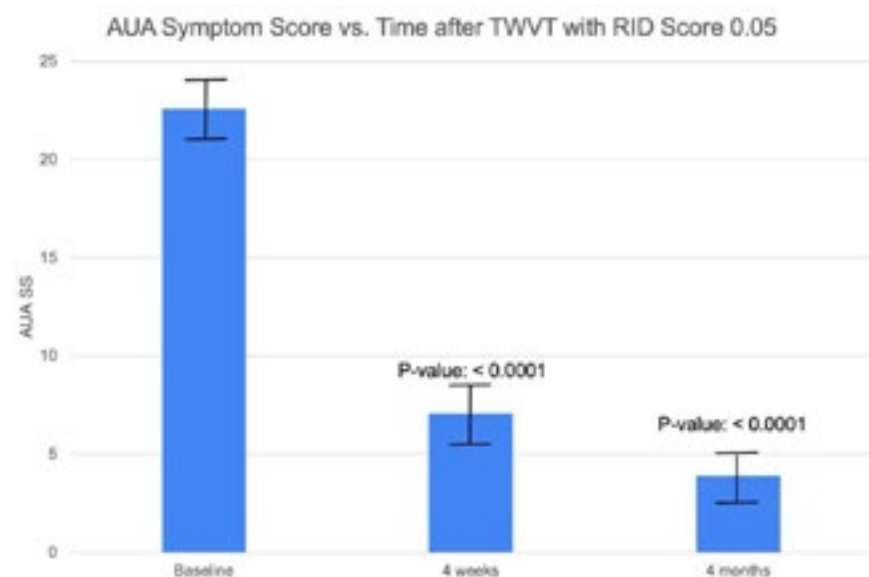
Introduction: Transurethral Water Vapor Therapy (TWVT) for benign prostatic hyperplasia (BPH) has procedural guidelines of administering thermal energy through injections spaced 1.5–2.0cm apart from the bladder neck to the prostatic apex. We challenge this standard by introducing a new metric, the Rezum Injection Density (RID) Score, the ratio of treatment injections to prostate volume. We propose it may better reflect the required thermal energy rather than using prostatic length. Using a Low-RID-TWVT may reduce procedure related overtreatment and discomfort, as well as post procedure complications and irritative symptoms. We also propose that treatment discomfort increases with an increased (i.e. less acute) Prostatic Urethral Angle (PUA), the angle formed between the proximal and distal prostatic urethra.

Methods: We performed a single-surgeon prospective cohort study of 64 patients who underwent TWVT between October 2023 and June 2024. 4 patients were excluded based on pre-defined criteria. Pain management was performed with NSAIDs, gabapentin and Transrectal-Ultrasound (TRUS) Guided Modified Prostatic Block. No narcotics or sedation was used. RID scores, PUA, AUA Symptom Scores (AUASS) and pain scores using the validated Numeric Pain Rating Scale (NPRS-11) were recorded. Statistical analyses using Linear Regression Models and Paired T-Tests were conducted using SPSS.

Results: Average age was 67.4 ± 6.62 years; average prostate volume was 54.86 ± 25.40 mL; and average PUA was 39.43 ± 10.41 degrees. Post TWVT urinary retention was 0%, and average Foley use was 4.80 ± 0.75 days. Average NPRS-11 was 3.01 ± 1.38 . Average RID Score was 0.0485 ± 0.0190 (Injections/mL). Baseline AUASS was 22.56 ± 3.70 . Average AUASS at 4 weeks was 7.06 ± 3.07 (Decreased 15.50 ± 4.62 (p-value < 0.0001)), and at four months 3.91 ± 2.36 (Decreased 18.46 ± 4.04 (p-value < 0.0001)). Regression analysis found no statistically significant difference between increasing RID scores and reductions in AUASS at 4 weeks ($R^2 = 0.022$) or 4 months ($R^2 = 0.051$), supporting our hypothesis. Moderate positive relationship was found between PUA and NPRS-11 pain scores, standardized coefficient 0.328 (p-value = 0.019).

Conclusion: Our study demonstrates Low-RID-TWVT is effective for treating BPH. An average RID Score of 0.05 (injections/mL) resulted in minimal procedure discomfort and significant AUA SS reductions at 1 and 4- months post-op. An increased PUA relates to increased discomfort, which could guide pain management and patient expectations on pre-procedure TRUS. Our ongoing prospective trial includes Uroflowmetry data to refine treatment protocols.

Funding: N/A



Podium #20

DELAYED REMOVAL OF THE NON-INFECTED ARTIFICIAL URINARY SPHINCTER HAS COMPARABLE OUTCOMES TO IMMEDIATE REMOVAL

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Presented By: Mariela R. Martinez, MD, MS

Introduction: Urethral cuff erosion is a well described complication of artificial urinary sphincter (AUS) with reported rates of 2-18%. Current guidelines recommend prompt removal of the device upon erosion diagnosis. This study examines the short- and long-term outcomes of delayed versus immediate removal of non-infected AUS erosions.

Methods: We reviewed our prospectively maintained AUS QI database from 2011 to 2024 and identified patients who underwent AUS removal for confirmed erosions via cystoscopy. Patients with suspected device infection, defined by SIRS criteria or symptoms like fevers >101.5F, erythema, or scrotal swelling, were excluded. Patients were divided into two groups: immediate removal (IR) within 24 hours and delayed removal (DR) beyond 24 hours from diagnosis. The DR pathway included device deactivation, broad-spectrum antibiotics, and outpatient removal within a week. Outcomes were compared using Pearson's Chi-squared test.

Results: Among the 1104 implanted AUS devices, 110 patients had erosions. 92 met inclusion criteria (43 IR, 49 DR). Baseline clinical characteristics were not statistically different. Common risk factors included prior erosion (30% IR vs 25% DR), prior radiation (74% IR vs 69% DR), and posterior urethral stenosis (30% IR vs 20% DR). The mean device age at erosion was 23.75 months (1-108) for IR and 30 months (2-106) for the DR group. The mean time to AUS removal was 4 hours (7-24) in the IR and 5 days (1-23) in the DR group.

Complications included persistent extravasation of contrast during retrograde urethrogram (30% IR, 33% DR) and urethral stricture formation (IR 33%, 24% DR)(Table1). Urethrocuteaneous fistulas were seen in two IR and one DR patient. One patient per group developed pubic osteomyelitis. One patient in the IR group died two days after post-surgery after failed cardiac intervention, while one DR patient died in hospice from polyneuropathy one-month post-removal. At median follow of 357 (162,3081) days, there was no significant difference in overall complications between IR vs DR (p-value= 0.52) (Table 2).

Conclusion: Contrary to the classic belief of the need for immediate removal of non-infected AUS erosions, delayed management has similar outcomes to immediate AUS removal. These findings are important for patient counseling and clinical decision making in the AUS patient.

Funding: N/A

Table 1. Patient complications after immediate versus delayed AUS removal.

	Immediate Removal (%) N=43	Delayed Removal (%) N=49
Urethral Stricture	14 (33)	12 (24)
Extravasation on post-operative retrograde urethrogram	13 (30)	16 (33)
Scrotal abscess/cellulitis	3 (7)	0
Urethrocuteaneous fistula	2 (5)	1 (2)
Pubic Osteomyelitis	1 (2)	1 (2)
Death	1 (2)	1 (2)

Table 2. Overall complications of delayed and immediate AUS removal.

	Complications (N)	No complications (N)	Total (N)
Delayed AUS Removal	31	18	49
Immediate AUS Removal	34	9	43
Odds Ratio	2.19 CI (0.86-5.60)		
p-value	0.52		

Podium #21

MINIMALLY INVASIVE SURGERY VS. MEDICATION IN THE INITIAL TREATMENT OF BPH-ASSOCIATED LUTS: A PRELIMINARY ANALYSIS OF THE IMPACT RCT

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Presented By: Gregg R. Eure, MD

Introduction: Lower urinary tract symptoms (LUTS) secondary to benign prostatic hyperplasia (BPH) is often initially treated with medical therapy, an approach marked by high non-adherence rates; minimally invasive surgical therapies (MISTs) like the Prostatic Urethral Lift (PUL) offer a favorable safety profile, superior early patient experience compared to TURP, durable symptom relief, and better bladder health preservation compared to watchful waiting or alpha-blocker therapy. The IMPACT RCT compares efficacy and patient experience outcomes for subjects treated with PUL or medical therapy; this analysis includes preliminary data through 3 months.

Methods: The IMPACT RCT is a prospective, two-arm, multicenter 1:1 study comparing efficacy, safety, and patient experience in BPH patients treated with PUL or medication (tamsulosin 0.4 mg daily). The primary endpoint was change in BPH symptom score (IPSS) at 3 months; additional endpoints included QoL, satisfaction, goal achievement, sexual function, adverse events, and medication adherence. Key outcomes to date are included in this preliminary analysis.

Results: Preliminary analysis included 88 PUL and 112 medication subjects. Treatment group baseline demographics were similar (i.e., IPSS, QoL, Qmax, prostate volume, PSA, MSHQ, IIEF). IPSS improvements were greater for PUL subjects (39.1% and 46.8% at 1 and 3 months, respectively) compared to medication (16.9% and 14.2%). PUL patient QoL improved by 39.3% and 47.9% at 1 and 3 months compared to 10.2% and 7.8% for subjects on medication (Table 1). Compared to medication, PUL subject experienced greater improvements in sexual function (erectile and ejaculatory function, ejaculatory bother). PUL PPSM scores at 1 and 3 months were more positive than medication. Baseline treatment goals were similar between groups; highly-rated goals and overall goal achievement were higher for PUL than medication at 1 and 3 months.

Conclusion: IMPACT is the largest head-to-head RCT comparing any MIST to medication in the treatment of BPH-associated LUTS. PUL appears to offer greater symptom and quality-of-life improvements, as well as patient satisfaction with treatment compared to medical therapy.

Funding: Teleflex

Podium #22

BMI AND ALPHA-REDUCTASE THERAPY: POTENTIAL PREDICTORS OF INCIDENTAL PROSTATE CANCER AFTER HOLEP

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Presented By: Pablo Suarez, B.S

Introduction: Incidental prostate cancer (iPCa) after holmium laser enucleation of the prostate (HoLEP) is reported in up to one-fourth of patients who undergo HoLEP. Risk factor stratification can help guide our screening process for iPCa prior to surgery. Recent reports on predictive factors for iPCa has yielded inconclusive and conflicting results, which highlights the need of a comprehensive analysis of patient-specific factors associated with increased iPCa risk.

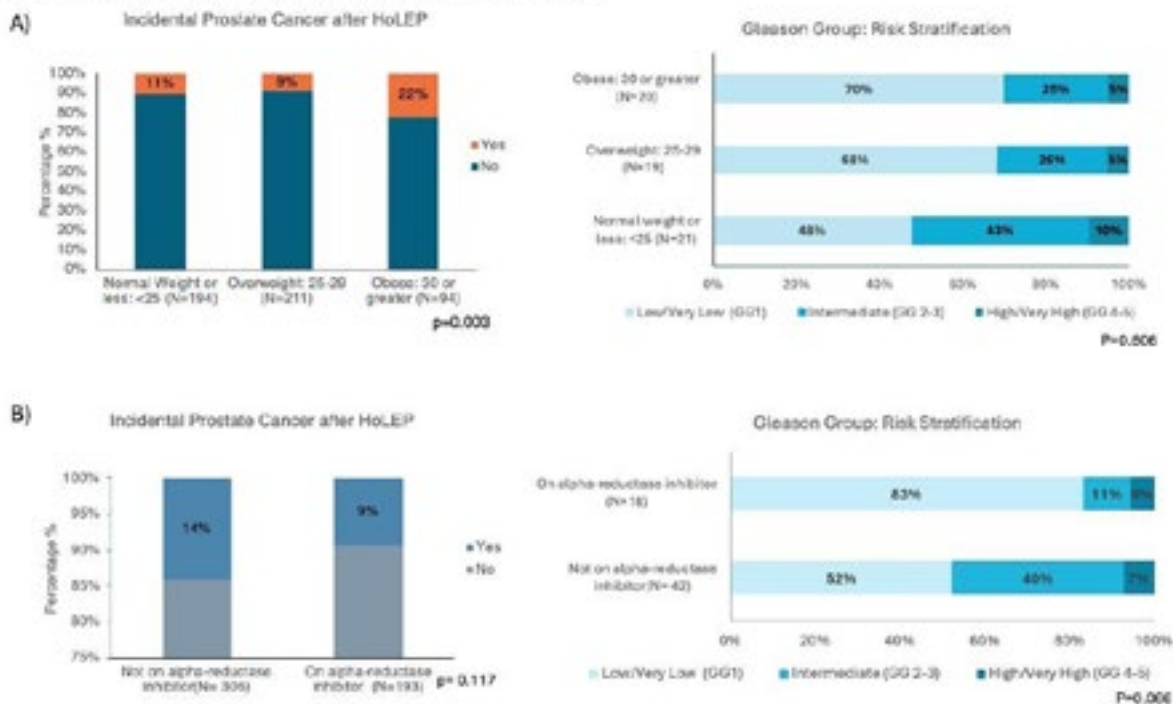
Methods: A retrospective cohort study was conducted on patients who underwent HoLEP at a single academic center between 2018-2023. Demographics, medical history, and postoperative pathology data were collected from the EMR. Patients with a prior history of prostate cancer or local radiation therapy were excluded. The primary outcome was iPCa based on HoLEP tissue pathology. The secondary outcome was risk stratification by Gleason Group (GG). Student's T-test and chi-square analysis were used for continuous and categorical variables, respectively, and a multivariate logistic regression model was used to adjust for covariates.

Results: Out of 499 patients who underwent HoLEP, 61 (12%) had iPCa. Age, mean BMI, and prostate size did not significantly differ between those with and without iPCa ($p > 0.05$). However, mean preoperative PSA levels were higher in the iPCa group (11.6 vs. 7.9, $p < 0.001$). Obese patients (BMI ≥ 30) were more likely to have iPCa (22%) compared to those with a BMI of 25-29 (9%) and BMI < 25 (11%) ($p = 0.003$). On adjusted regression analysis, preoperative alpha-reductase therapy was associated with lower risk of iPCa (OR 0.4, 95% CI 0.2-0.8). Both BMI and PSA were moderate predictors of iPCa (OR 1.1 and OR 1.01, respectively, $p < 0.05$). Risk stratification by Gleason Group did not vary by BMI category or alpha-reductase therapy.

Conclusion: Consistent with the literature, preoperative PSA levels was found to predict for iPCa following HoLEP. In addition, we found that elevated BMI increases iPCa risk, while alpha-reductase therapy reduces it. These parameters could be important in guiding prostate cancer screening prior to HoLEP for patients who are at higher risk of postoperative iPCa.

Funding: N/A

Figure 1. BMI and Alpha-reductase inhibitors effect on iPCa



Podium #23

PERIOPERATIVE ANTIBIOTIC DURATION AFFECTS INFECTIOUS RATES IN HIGH-RISK PATIENTS UNDERGOING HOLEP

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Presented By: Feres Camargo Maluf

Introduction: Patients undergoing holmium laser enucleation of the prostate (HoLEP) are increasingly elderly, comorbid, and at risk of asymptomatic bacteriuria. Postoperative infections are common in this growing subset of patients, and optimal perioperative prophylactic antibiotic duration is unknown. Therefore, we aim to analyze the association between the perioperative antibiotics duration and the postoperative infection rates in HoLEP patients at increased risk for infection.

Methods: This retrospective cohort study was performed at a single academic center of patients who underwent HoLEP between 2018-2023. We included high-risk patients for infectious complications, defined as those with a positive preoperative urine culture, catheter dependency, immunosuppression, history of urosepsis, history of pyelonephritis, or history of recurrent UTIs. Demographic characteristics and perioperative variables were abstracted from the EMR. Antibiotic duration in the postoperative setting was categorized as short (less or equal than 3 days) or long (more than 3 days). The primary outcome was infection rates within 30 days of the procedure, defined as patients treated for a presumed UTI. The secondary outcome was patients with UTI symptoms and a positive urine culture within 30 days of the procedure. Propensity score weights were applied for the adjusted analysis.

Results: We identified 206 high-risk patients in our database. Of these, 36.9% received a long course of antibiotics after the procedure. A total of 29 patients had an infectious complication within 30 days of surgery. Of these, 18 had a positive urine culture, and three developed urosepsis. When assessing antibiotic duration in the postoperative setting, the short-term group had 24 infectious complications, while the long-term group had 5 events ($p=0.018$; Figure 1). For the secondary outcome, the short-term group had 15 UTIs with a positive urine culture, while the long-term group had 3 events ($p=0.063$). On the adjusted analysis, the long-term group was 72% less likely to have an infectious complication compared to the short-term group ($OR=0.280$ [95%CI 0.095-0.826]; $p=0.021$). For the secondary outcome, the long-term group was 74.2% less likely to have a UTI with a positive urine culture compared to the short-term group ($OR=0.258$ [95%CI 0.066-0.997]; $p=0.050$).

Conclusion: When prescribing chemoprophylaxis for high-risk patients undergoing HoLEP, the regimen duration on the postoperative setting affects infection rates.

Funding: N/A

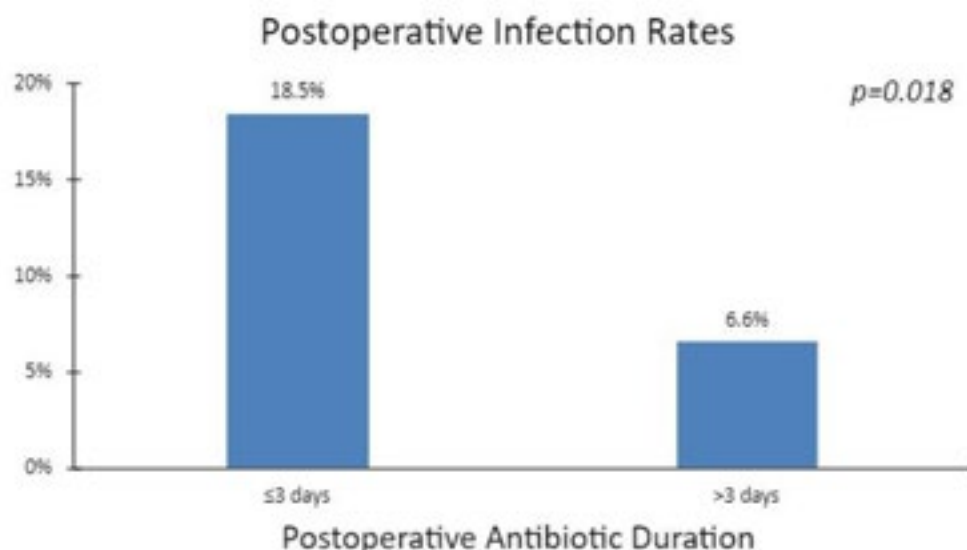


Figure 1. Comparison of 30-day postoperative infection rates between patients who received a short (1-3 day) course and a long (≥3 day) course of postoperative prophylactic antibiotics.

Podium #24

EARLY APICAL RELEASE IMPROVES RECOVERY OF POSTOPERATIVE URINARY CONTINENCE

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Presented By: Pablo Suarez, B.S

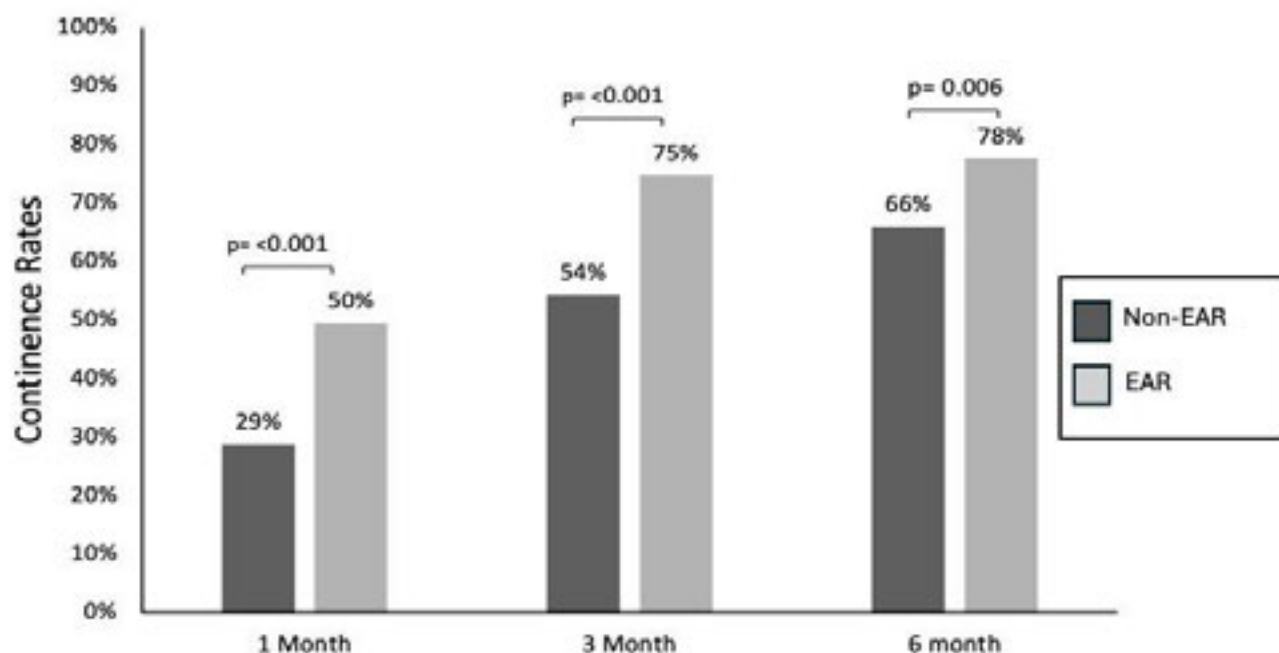
Introduction: Holmium laser enucleation of the prostate (HoLEP) is a minimally invasive procedure with growing acceptance as the gold standard for surgical extirpation for benign prostatic hyperplasia (BPH). The procedure was first described using a traditional en bloc approach. Postoperative transient urinary incontinence remains a significant concern for both patients and surgeons. While the early apical release (EAR) has been touted for its potential to reduce incontinence, data have been limited. This study evaluated differences in postoperative continence rates between EAR and en bloc within the first 6 months after surgery.

Methods: A retrospective cohort study of patients who underwent HoLEP at a single academic center between 2018-2023 was performed. Demographics, comorbidities, and perioperative outcomes were abstracted from the electronic medical record. The primary outcome was self-reported continence at the 1, 3, and 6 month follow-up visits. Secondary outcomes included operative time, enucleation efficacy (enucleated weight/operation time), enucleation ratio (enucleation weight/transitional zone volume), estimated blood loss, and perioperative complications. Student's t-test, chi-square analysis and multivariable logistic regression models were used for analysis.

Results: A total of 377 patients were included, out of which 274 were treated with non-EAR and 103 with EAR. There were no differences in age, BMI, comorbidities, or disease-specific measures such as prostate size, prior BPH procedures and recurrent urinary tract infections ($p > 0.05$). Amongst perioperative outcomes, a lower mean operating time in the EAR group (129.4 ± 48.2 vs 166.7 ± 108.8 , $p = < 0.001$) and higher operation efficiency (0.4 vs 0.3 g/min, $p = 0.009$) was observed. Relative to non-EAR, EAR had higher continence rates at the 1-, 3-, and 6-month follow-up period (Figure 1). These differences were significant only at 1- and 3-month follow-up even after adjusting for clinical variables related to continence.

Conclusion: The comparison between EAR and non-EAR enucleation techniques demonstrates notable enhancements in continence recovery at 1 and 3 months postoperatively. These findings underscore EAR's clinical efficacy in promoting improved urinary continence outcomes following HoLEP, suggesting its potential superiority over non-EAR techniques.

Funding: N/A



Podium #25

PROSTATE SPECIFIC ANTIGEN (PSA) VELOCITY AND INITIAL PSA ARE INDICATORS OF RESIDUAL PROSTATE CANCER AFTER SIMPLE PROSTATECTOMY

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Presented By: Hasan F. Jhaveri, MD

Introduction: Men remain at risk for prostate cancer after simple prostatectomy. Despite our understanding of this, no parameters exist to inform urologists of prostate specific antigen (PSA) monitoring after surgery. This study aimed to compare initial postoperative PSA measurements and PSA kinetics after simple prostatectomy in patients with benign pathology (benign prostate hyperplasia; BPH) to those with known or incidentally-discovered prostate cancer.

Methods: We performed a retrospective review of all simple prostatectomies performed at two tertiary care centers in the United States between 2014-2023. Baseline patient demographics, oncologic diagnosis and treatment history, and preoperative and postoperative PSA values were collected. Records were divided into groups based on malignancy status (BPH alone vs. diagnosis of PCa).

Results: Out of 296 patients who had a simple prostatectomy with pre- and postoperative PSA testing, 235 had no prostate cancer. 27 of the 61 with prostate cancer were diagnosed before surgery, and 34 were diagnosed incidentally. There was no difference in preoperative PSA between the groups (9.6 ng/mL vs 10.6 ng/mL, $p = 0.12$). Patients with BPH had an initial postoperative PSA value of 0.72 ng/mL compared to 1.37 ng/mL in those with cancer ($p < 0.01$). PSA was reduced by 89% in BPH compared to 78% in the malignant cohort ($p < 0.01$). PSA velocity after surgery was significantly elevated in those with underlying PCa (0.40 ng/mL/year vs 0.004 ng/mL/year for men with BPH; $p < 0.01$). Using a [TM1] initial postoperative PSA threshold of 1.5 ng/mL, this would detect 30% of grade group (GG) 1+ prostate cancer, 29% of GG2+ prostate cancer, and result in 10% of patients with BPH undergoing negative workups.

Conclusion: For patients who have undergone a simple prostatectomy, the initial postoperative PSA level and PSA velocity can help determine the intensity of ongoing screening for prostate cancer. We propose close surveillance (PSA checks every 3-6 months) as well as a prostate MRI and/or biopsy to men with a postoperative PSA above 1.5 ng/mL.

Funding: N/A

	Benign (n=235)	Malignant (n=61)	p-value
Average age (years)	70 \pm 7	70 \pm 7	0.48
Preoperative finasteride use	104 (44%)	20 (33%)	0.12
Preoperative PSA (ng/mL)	9.6 \pm 7.4	10.6 \pm 8.3	0.36
Initial postoperative PSA (ng/mL)	0.72 \pm 0.73	1.37 \pm 1.69	<0.01
% PSA reduction	89 \pm 14	78 \pm 37	<0.01
PSA velocity (ng/mL/year)	0.004 \pm 0.61 (n=126)	0.40 \pm 1.09 (n=47)	<0.01

Podium #26

TRANEXAMIC ACID IS ASSOCIATED WITH DECREASED POSTOPERATIVE TRANSFUSION RATE AND LENGTH OF STAY AFTER HOLEP

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Presented By: Pablo Suarez, B.S

Introduction: Holmium laser enucleation of the prostate (HoLEP) is becoming the gold standard for surgical treatment of benign prostatic hyperplasia. While the procedure is safe and produces durable outcomes, perioperative bleeding remains a concern. Tranexamic acid (TXA) has been studied as an adjunctive therapy to promote effective postoperative hemostasis. While TXA has the potential to limit perioperative transfusion requirements and therefore promote faster discharge or same day surgery, these clinical benefits are not well described. We aimed to determine the impact of perioperative TXA on immediate postoperative outcomes.

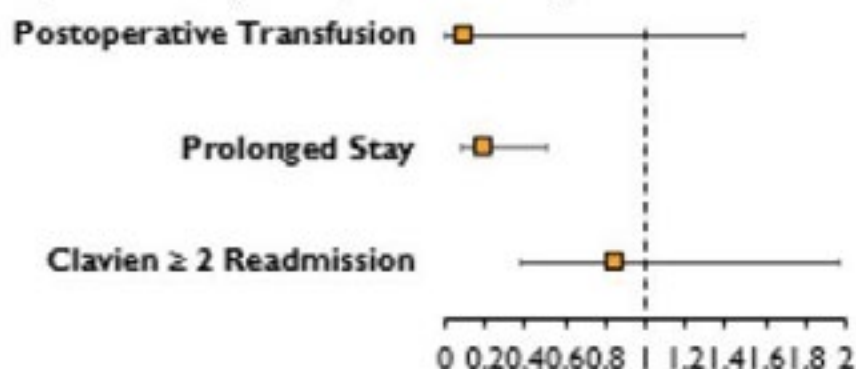
Methods: A retrospective cohort study on patients undergoing HoLEP from a single academic institution from 2018-2022 was conducted. After 2019, to facilitate same day discharge, all patients undergoing HoLEP were given TXA unless medically contraindicated. Demographic, clinical and disease-specific patient characteristics, and surgical outcomes were abstracted. The primary outcomes were postoperative transfusion rate, prolonged stay (admission >24hr) and Clavien II or greater complications. Multivariable linear and logistic regression models were used for numerical and categorical variables respectively.

Results: Of the 480 patients identified, 57.7% of patients received TXA while 42.3% did not. Both groups had similar mean ages (71.1 ± 6.7 vs 71.6 ± 10.4 ; $p=0.57$). Multivariable regression models adjusting for age, BMI, prostate size, prior prostate surgery, hypertension, diabetes, and ASA >2 showed that TXA administration decreased the risk of prolonged stay (OR 0.19; 95% CI 0.08- 0.51) (Figure 1). Readmission for Clavien II or greater complications and postoperative transfusion rates were unaffected.

Conclusion: Although recent studies show no impact of TXA on postoperative outcomes, our study demonstrates that TXA has utility in reducing postoperative transfusion rates and length of stay.

Funding: N/A

Figure 1. Multiple Regression Analysis



Regression models were adjusted for age, race, BMI, prostate size, prior prostate surgery, hypertension, diabetes, and ASA >2.

Podium #27

QUALITY OF LIFE OUTCOMES WITH NEUROMODULATION IN PROSTATE CANCER SURVIVORS

Bryn Launer, MD, Melissa Kaufman, MD, PhD

Vanderbilt University Medical Center

Presented By: Bryn Launer, MD

Introduction: Prostate cancer (PCa) survivors experience significant impact on urinary function following treatment. While therapies to address stress urinary incontinence in PCa survivors have been well described, there is a dearth of information regarding urgency urinary incontinence and the role of sacral neuromodulation (SNM). This study aims to characterize outcomes for PCa survivors with medication refractory lower urinary tract symptoms who underwent SNM with Interstim.

Methods: A total of 50 male patients, all PCa survivors, from 12 institutions were included in a retrospective analysis. Patients were consented as part of the post-market Medtronic Product Surveillance Registry. Demographic information was collected, as well as outcomes data measured by the Patient Global Impression of Improvement (PGII) scale over multiple follow-up visits up to 96 months after SNM device placement.

Results: Patients were an average age of 73 at time of SNM device placement, with average BMI of 29. Ninety percent (45/50) were white, 8% (4/50) were Black or African American, and 2% (1/50) identified as Hispanic or Latino. Most patients (88%, 44/50) were enrolled following initial device placement, with 8% (4/50) undergoing replacement procedures. Forty-three percent (26/40) had previously undergone prostate surgery, and 51% (15/29) had previously undergone prostate radiation. The most common indication for device use was urinary urgency incontinence (54%, 27/50), followed by urinary urgency/frequency (24%, 12/50).

Mean follow up was 32 months, median follow up was 21 months, with a range from 0 months to 96 months. The majority reported improvement in symptoms as measured by the PGII at each follow up visit, with 73% (11/15) reporting improvement at 6 months, 83% (10/12) at 12 months, and 83% (5/6) at 72 months (Fig. 1).

Conclusion: Use of SNM in PCa survivors shows durable symptom improvement in this small cohort with mean follow up of almost 3 years. SNM should be considered as a treatment modality for patients with mixed LUTS after PCa treatment, aided by functional diagnosis with urodynamics. This study presents an opportunity for investigation into prospective studies to enhance our specificity for treatment to optimize outcomes in PCa survivors.

Funding: N/A

PGII of Patients with a History of Prostate Cancer by Follow-Up Period

Patient Global Impression Of Improvement (n, %)	6 Month (N=15)	12 Month (N=12)	24 Month (N=8)	36 Month (N=1)	48 Month (N=4)	60 Month (N=4)	72 Month (N=6)	84 Month (N=4)	96 Month (N=1)
Measure Available	15	12	8	1	4	4	6	4	1
Very much better	0 (0.0%)	0 (0.0%)	1 (12.5%)	1 (100.0%)	0 (0.0%)	0 (0.0%)	1 (16.7%)	0 (0.0%)	0 (0.0%)
Much better	5 (33.3%)	2 (16.7%)	0 (0.0%)	0 (0.0%)	3 (75.0%)	2 (50.0%)	2 (33.3%)	0 (0.0%)	0 (0.0%)
A little better	6 (40.0%)	8 (66.7%)	1 (12.5%)	0 (0.0%)	1 (25.0%)	1 (25.0%)	2 (33.3%)	3 (75.0%)	0 (0.0%)
No change	3 (20.0%)	2 (16.7%)	5 (62.5%)	0 (0.0%)	0 (0.0%)	1 (25.0%)	1 (16.7%)	1 (25.0%)	1 (100.0%)
Much worse	1 (6.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Very much worse	0 (0.0%)	0 (0.0%)	1 (12.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Podium #28

TOTAL PROCEDURAL CONTEXT IS CRUCIAL IN UNDERSTANDING BPH DEVICE SAFETY IN THE FDA'S MAUDE DATABASE

Gregg Eure, MD¹, Rajesh Shinghal, MD²

¹Urology of Virginia, ²Sutter Health

Presented By: Gregg R. Eure, MD

Introduction: BPH treatment medical device reports (MDRs) in the FDA's MAUDE database capture valuable patient experience and safety information. A more comprehensive understanding of the safety profiles emerging from MAUDE requires placing MDRs in the context of total procedures performed. This analysis examines the overall number and severity of BPH treatment device MDRs in MAUDE and contextualizes them in the landscape of total annual procedures performed.

Methods: MAUDE was searched using the device terms "UroLift," "Rezum," and "Aquabeam" for entries between January 1, 2019 and December 31, 2022. Entries were adjudicated by an independent physician arbitrator and assigned severity scores using the Clavien-Dindo (CD) scale; duplicated and irrelevant entries were excluded from analysis. Medicare CPT codes were used to build an independent market model estimating total UroLift, Rezum, and Aquablation procedures performed from 2019 through 2022.

Results: In all years analyzed, UroLift was the most frequently performed procedure, while Aquablation saw the greatest increase in total procedures over the period analyzed (2019: 291, 2022: 8400). 15% of Aquablation patients experienced a serious adverse event in 2019 (CD3+, Fig 1A). UroLift had a significantly lower rate of serious adverse events compared to Rezum (~1 per 1,000, $p < 0.01$) or Aquablation (~4 per 1,000, $p < 0.01$) in 2022 (Fig 1B). The mild to moderate event rate between 2019 and 2022 was consistent and lowest for UroLift (2019: 2.0 per 10,000; 2022: 1.7 per 10,000) in comparison to Rezum (2019: 4.5 per 1,000; 2022: 3.7 per 1,000) and Aquablation (2019: 4.5 per 100; 2022: 3.7 per 1,000).

Conclusion: The annual rates of mild, moderate and severe events for Aquablation are significantly higher than the minimally invasive surgical therapies analyzed when placed in context of total procedures. PUL has the lowest annual rates of mild, moderate, and severe complications each year in the MAUDE database.

Funding: Teleflex

Podium #29

SAME DAY DISCHARGE FOLLOWING HOLMIUM LASER ENUCLEATION OF THE PROSTATE UNDER SPINAL ANESTHESIA: A PROPENSITY SCORE MATCHED COMPARISON WITH GENERAL ANESTHESIA

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Presented By: Daniela Andrea Haehn, MD

Introduction: To determine if using spinal anesthesia (SA) for holmium laser enucleation of the prostate (HoLEP) impacted the ability to perform same day discharge (SDD) compared to a prostate volume matched cohort undergoing HoLEP under general anesthesia (GA).

Methods: From January 1, 2021 to March 28, 2024 995 men underwent HoLEP by a single surgeon. Three hundred eleven were identified who had spinal anesthesia and a recorded preoperative prostate volume. Propensity score matching based on prostate volume was performed with the remaining cohort who received general anesthesia in a 1:1 ratio. The primary outcome was rate of SDD.

Results: When comparing SDD between the two groups, 84% of SA patients had SDD compared to 74% of GA patients (P-value 0.002). The operative time for SA was significantly shorter than GA (89 versus 101 minutes P-value <0.001). There were no significant differences in early catheter reinsertion, emergency department (ED) visits, complications, or postoperative serum prostate specific antigen measured at 3 months.

Conclusion: Utilizing SA for HoLEP did not preclude SDD compared to a prostate volume-matched cohort who underwent HoLEP under GA. In fact, SDD were higher in the SA cohort without a corresponding increase in ED visits or catheter reinsertion.

Funding: n/a

Podium #30

SIMULATED KIDNEY AND KIDNEY STONE TO EVALUATE OPTIMAL POSITIONING FOR URETEROSCOPY

Ashley Gordon¹, Orlando Diaz-Ramos¹, Hemendra Shah¹, Robert Marcovich¹, Julio Ojalvo², Sarvesh Saini², Ubbo Visser², Jonathan Katz¹

¹Desai Sethi Urology Institute - University of Miami, ²Department of Computer Science, University of Miami

Presented By: Ashley Gordon, MD

Introduction: Ureteroscopy with laser lithotripsy is a common treatment for kidney stones less than 15-20 mm. However, stone free rates, especially regarding lower pole fragments remain a challenge. A prior study demonstrated improved stone free rates by putting patients in 15 degrees of Trendelenburg and a 15 degree tilt away from the treated kidney. In this study we simulated a kidney and stone fragmentation to evaluate optimal angles to prevent lower pole stone migration.

Methods: We performed an institutional review board approved study wherein we extracted a CT Urogram from a patient with nephrolithiasis. We extracted the collecting system as a 3D object using RadiAnt. Additionally we used an open-source rendering of a stone and imported these into Isaac Sim Simulation software. We adjusted the scale to make the stone 2mm and kidney length 10cm (Image 1). In simulation we applied a force sufficient to move the stone from the upper to the lower pole on 10/10 tries. Then we repeated the experiment adjusting the kidney to 5, 10, and 15 degrees of Trendelenburg, with and without a 5, 10, and 15 degree tilt away from the treated kidney. We then recorded the number of times the stone ended in the lower pole from 10 runs in each configuration.

Results: We applied a force of 0.0276N, -0.1972N, and 0.1912N (X,Y,Z) on the stone fragment which resulted in 100% of the fragments ending up in the lower pole. As we increased the tilt to 15 degrees the percentage of stones ending in the lower pole decreased to 70%. We repeated this, putting the patient in Trendelenburg and 90% of the stones remained in the lower pole. However, the combined tilting to 15 degrees resulted in only 20% of stones ending up in the lower pole.

Conclusion: Our results demonstrate that patient positioning in 15 degrees of Trendelenburg with a 15 degree tilt away from the affected kidney would reduce lower pole fragments by 80%. This used one sample collecting system and may have different findings with different collecting system geometries. Nonetheless to our knowledge this is the first report of utilizing simulation to examine surgical considerations during ureteroscopy with laser lithotripsy.

Funding: N/A

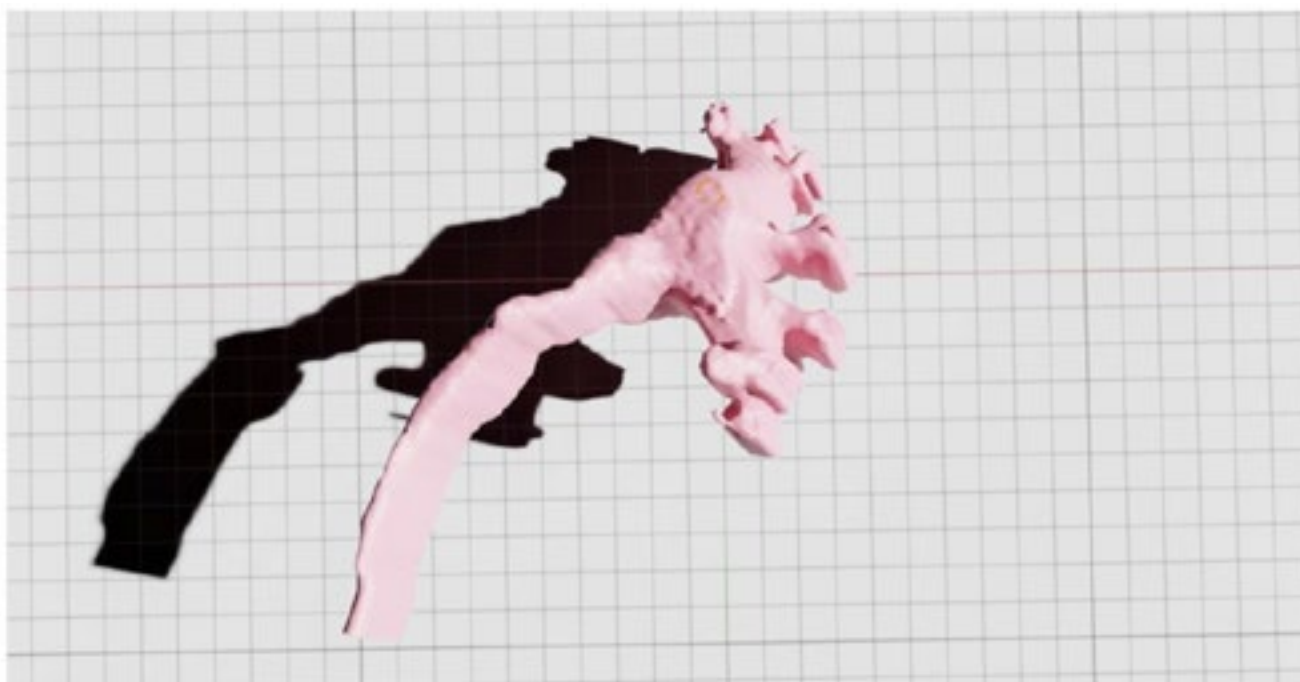


Image 1: 3D rendered kidney with position of stone superimposed and outlined with orange circle

Podium #31

ASSESSMENT OF UROLOGIC KNOWLEDGE AMONG MEDICAL STUDENTS AT A SINGLE INSTITUTION - A SURVEY-BASED STUDY

James Griggers, Saloni Patel, Samuel Kennedy, Dipen Mehta, Joshua van der Eerden, Martha Terris, MD, FACS

Medical College of Georgia at Augusta University

Presented By: Saloni Jayesh Patel, BS

Introduction: Medical education in urology is lacking among many medical schools which is of concern as many students are entering residency with the possibility of having sub-optimal exposure to urological conditions and clinical skills relevant to the field. This raises concern as emergency medicine and primary care physicians are frequently the first line of care for patients with urologic conditions in the general population. This reality necessitates improved curricula that address the shortcomings of medical school education about urology. We sought to evaluate how familiar medical students were with common urologic conditions and their confidence in clinical skills relevant to urology.

Methods: An anonymous virtual survey containing 9 questions with subsections was distributed to the student body at a single medical school and administered by Microsoft Forms. The survey questions about prior completion of surgery, obstetrics and gynecology, and urology rotations and avenues of exposure to urology were multiple choice. Familiarity with common urologic conditions and clinical skills were assessed by a five-point Likert scale. Residents and attending physicians were not included in this study.

Figure 2. Flowchart depicting the progression through the survey.

Results: A total of 101 responses were obtained from a population of 1,208 students. 53 responses were from pre-clerkship students and 37 responses were from clerkship students. Among pre-clerkship and clerkship students, the most frequent avenue for exposure to urology before medical was family member/friend. The most common exposure to urology among pre-clerkship and clerkship students during medical school was by interest group. For both pre-clerkship and clerkship students, bladder cancer more frequently reported lower Likert scale scores for both recognizing signs and symptoms and management. Foley placement was the lowest-scoring clinical skill among both groups of students.

Conclusion: Urology is a vital field of medicine for medical students and physicians to be familiar with as most patients will develop a urologic condition across their lifetime. Despite this many medical students have inadequate exposure to urology which is consistent with our findings. To address this education gap, medical schools should reform curricula to include clinical skills relevant to urology in a simulation-based environment.

Funding: N/A



Podium #32

DOES A REQUIREMENT FOR ANNUAL SCHOLARLY ACTIVITY INCREASE THE NUMBER OF UROLOGY RESIDENT PUBLICATIONS?

Ann Stolzle, Anjalika Chalamgari, Benjamin Canales

Department of Urology, University of Florida Health, Gainesville, FL

Presented By: Ann Stolzle

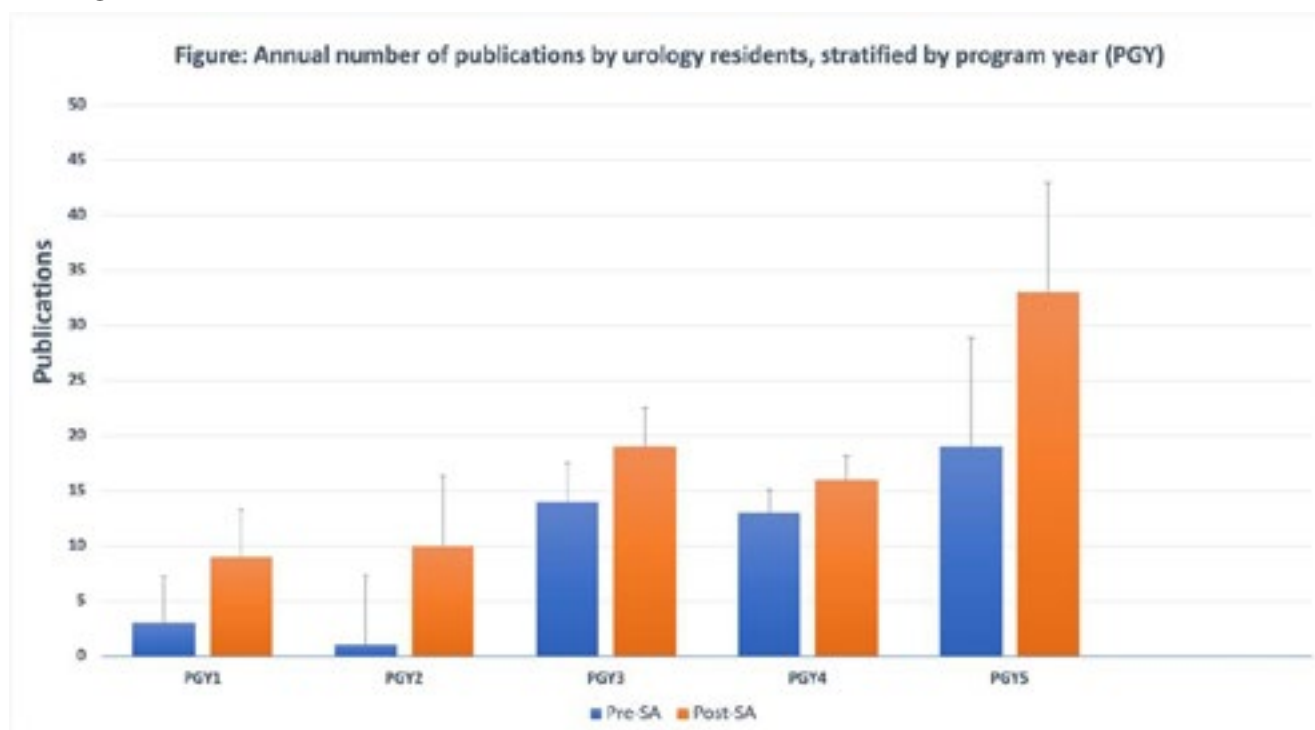
Introduction: Accreditation agencies expect institutions to create an environment of scholarly inquiry for urology residents, but prerequisites are poorly defined. In 2016, our department began requiring at least one annual scholarly activity (SA) with a formal manuscript delivered at academic year end. We examine the effect of this condition on resident publications and choice of additional training via fellowship.

Methods: Using resident portfolios and online searches, we collected all available research data on our department's graduates over the last 18 years (2006-2024). PubMed research publications from graduating chiefs were stratified by publication program year (PGY). Shared authorships were counted as individual resident publications. Total number of publications were then compared between pre-SA and post-SA PGY groups. We also tallied post-graduate publications, total number of residents who chose to pursue fellowship training, and annual number of faculty members available to mentor resident trainees (F:R ratio). To limit bias, we adjusted post-graduate publications based on total number of potential publication years. Unpaired t-tests and odds ratio were used to calculate differences with p-value <0.05 considered statistically significant.

Results: A total of 48 residents and 137 publications were reviewed (Figure). Due to an increase in resident complement number, we grouped 2006-2016 graduates as pre-SA (n=24) and 2017-24 as post-SA (n=24). Compared to pre-SA, post-SA residents had significantly more publications (87/137, 64%; p=0.023). PGY5 was the most productive publication year for both pre-SA (19/50; 38%) and post-SA (33/87; 38%) groups. Least productive years were PGY2 for pre-SA (1/50, 2%) and PGY1 for post-SA (9/87; 10%). Research productivity after graduation was similar between SA groups in aggregate (p=0.254) and when adjusted for publication years (p=0.06). Choice of fellowship training (OR=0.714, 95% CI [0.266 to 1.92]) and mean annual F:R ratios (5.53 vs 4.83; p=0.87) were also similar between groups.

Conclusion: The requirement of at least one SA during each program year is associated with a higher number of urology resident publications, most commonly during chief year. At our institution, SA did not affect pursuit of fellowship training or number of future publications. Overall, annual SA requirement satisfies accreditation expectations and promotes research activities for urology trainees.

Funding: N/A



Podium #33

IMPLEMENTATION OF QUARTERLY COUNSELING SESSIONS WITHIN A UROLOGY RESIDENCY PROGRAM – A FEASIBILITY STUDY

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Presented By: Rachel Locke

Introduction: A significant body of research has demonstrated high levels of depression and burnout across United States residents. Though programs are mandated by the ACGME to provide access to mental health counseling, residents report low utilization of these resources. In addition, Employee Assistance Programs are often not sensitive to the unique residency experience. Therefore, we established a relationship with a local therapist to create “opt-out” quarterly counseling program for residents.

Methods: A mental health counselor was identified as a community reference from our institution’s primary care network. In identifying the counselor, we sought someone who had experience working with physicians and was outside of our electronic medical record to maintain utmost anonymity.

The pilot program occurred between April 2023 – June 2024 and sessions were initially funded by a private grant. Each resident is scheduled to meet with the counselor 3-4 times per year. However, if a resident was identified to have additional needs, these additional sessions were covered by the grant. If a resident was identified to have additional needs that the counselor could not address, she would refer out to the community and the financial coverage was discussed on a case-by-case basis.

All sessions occur in the afternoons. The resident is excused from clinical duties at least one hour prior to the session and is not expected to return to work. These sessions are scheduled by the therapist and assistant program director. Residents are excused from duties for the allotted time regardless of whether they opt out of the appointment.

Results: Qualitative resident feedback revealed that residents believed that the program destigmatized asking for help, cultivated a culture of support where self-care is encouraged, and emphasized the importance of pausing for reflection. Strengths of the program included the appointments being scheduled for the residents and the allotted time off after sessions. No changes were suggested. After positive feedback, the department agreed to fund this endeavor annually.

Conclusion: We present a feasibility study in implementing a departmental mental health counseling program within a urology residency. Future studies aim to follow resident perceptions regarding mental health and feedback of the program over time.

Funding: N/A

Podium #34

WHO RECEIVES AN OPEN PARTIAL NEPHRECTOMY (OPN) VS ROBOTIC-ASSISTED PARTIAL NEPHRECTOMY (RAPN)? ANALYSIS OF A 1001 SINGLE SURGEON SERIES

Neda Qosja¹, Amanda Kahn¹, Laura Geldmaker², Aubrey Barr¹, Haden Fisher¹, Sydney Bluestein¹, Daniela Haehn¹, Alex Hochwald³, David Thiel¹

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Presented By: Neda Qosja

Introduction: Our objective was to evaluate who received an open partial nephrectomy (OPN) versus a robotic-assisted partial nephrectomy (RAPN) in a large single surgeon series based on patient baseline characteristics and imaging variables.

Methods: 1001 consecutive partial nephrectomies performed by a single surgeon were retrospectively reviewed. We evaluated patient preoperative factors and imaging variables including age, comorbidities, tumor size, RENAL nephrectomy score (RNS), and Mayo Adhesive Probability (MAP) score on tumor kidney. A Kruskal-Wallis and chi-squared tests were performed to analyze our data through categorical and continuous variables.

Results: 238 patients (23.8%) underwent OPN and 763 patients (76.3%) had a RAPN. OPN patients had a higher median age (65.56 years vs 62.93 years, $p<0.002$), higher Charlson comorbidity index (CCI) score ≥ 5 (53.7% vs 40.7%, $p<0.001$), and a larger median tumor size (4.2 cm vs 3.0 cm, $p<0.001$). A larger proportion of patients that underwent an OPN were on anticoagulants in contrast to the RAPN cohort (7.2% vs. 3.9%, $p=0.04$). High MAP score (4-5) was significantly associated with OPN cohort (46% vs 34%, $p<0.001$). OPN patients also had a significantly larger median posterior fat thickness (1.67 cm vs 1.50 cm, $p=0.04$) and a higher occurrence of severe perinephric fat stranding (37% vs 25%, $p<0.001$) compared to RAPN patients. There was no statistical difference between RENAL scores as both groups had a median score of 5 [RAPN; IQR (1.00, 9.00) vs OPN; IQR: (1.00, 8.00) ($p=0.08$)].

Conclusion: In a large single surgeon series, the decision to perform OPN vs. RAPN appeared to be driven by patient and imaging factors rather than tumor complexity. OPN was favored in patients that were older, had a larger tumor size, high grade MAP scores (4-5), and were on blood thinners.

Funding: NA

Podium #35

SIMPLIFIED STEREOSCOPIC (3-DIMENSIONAL) RECORDING FOR ROBOTIC SURGERY THAT UTILIZES MACHINE LEARNING TO GENERATE DEPTH MAPS

Garrett Brinkley, Saad Hassan, Ananth Punyala, Jorge Caso

Tulane University

Presented By: Garrett Joseph Brinkley, PhD, MD

Introduction: Robotics has become fundamental in urologic oncologic surgery with increasingly widespread adoption, particularly in training programs. With the continuing iterations of surgical techniques, observers at all levels of training need to document and share their evolution. Typically, recorded videos are done in two dimensions (2D). Although this is well established and allows for adequate procedure documentation, it differs from what the console surgeon is experiencing in three dimensions (3D). Additionally, by definition, we are not recording all the information generated from the surgery.

Methods: With the continuous evolution of technologies and the affordability of memory, we present a practical, cost-effective method for recording and viewing Da Vinci robotic surgery in 3D. This method mimics the surgeon's view from the console and departs from the typically expensive 3D viewing equipment. By recording the left and right cameras in a side-by-side (SBS) or top-to-bottom manner using screen recording devices and Open Broadcaster software, we have created a simplified, economical method for recording and sharing 3D robotic videos. Furthermore, we then utilized an online database of side-by-side images with corresponding depth maps to create a machine-learning algorithm to predict depth from the side-by-side images.

Results: To date, we have recorded six robotic surgeries, including radical and simple prostatectomies, partial nephrectomies, and pyeloplasty. The longest recorded video is 4 hours and 45 minutes, and 35 GB in size. This method can be utilized for both the Xi and the SP Da Vinci robotic systems. These videos have been viewed using anaglyph and active 3D but can be viewed on any 3D viewing system. Furthermore, depth maps of 3D videos have been created using the machine learning algorithm. We are investigating the advantage of creating depth maps from 3D side-by-side to standard 2D images.

Conclusion: Ultimately, we propose a shift in how robotic surgeries are recorded from 2D to SBS. These videos are currently being used for educational purposes, but additional projects in machine learning are also underway. Here, we demonstrate the ability to generate depth maps from side-by-side images. This will generate new possibilities for robotic surgeons, including augmented reality and automated surgeries.

Funding: N/A



Figure 1: 3-Dimensional Side-By-Side images from a Robotic cystolithotomy A) Left and right generated images B) Associated depth predicted by a machine learning algorithm

Podium #36

CONTENT ANALYSIS AND 1-YEAR IMPACT OF THE AUANEWS MEDICAL STUDENT COLUMN

Avani Desai, BS¹, Yash Shah, BS², Maria Antony, MD³, Jake Drobner, MD, MBA⁴, Jennifer Regala⁵, Stacy Tanaka, MD⁶

¹University of North Carolina School of Medicine, Chapel Hill, NC, ²Sidney Kimmel Medical College, Thomas Jefferson University, Philadelphia, PA, ³University of Connecticut School of Medicine, Farmington, CT, ⁴Rutgers Robert Wood Johnson Medical School, New Brunswick, NJ, ⁵American Urological Association, Linthicum, MD, ⁶University of Alabama at Birmingham, Birmingham, AL

Presented By: Avani Preyas Desai, BS

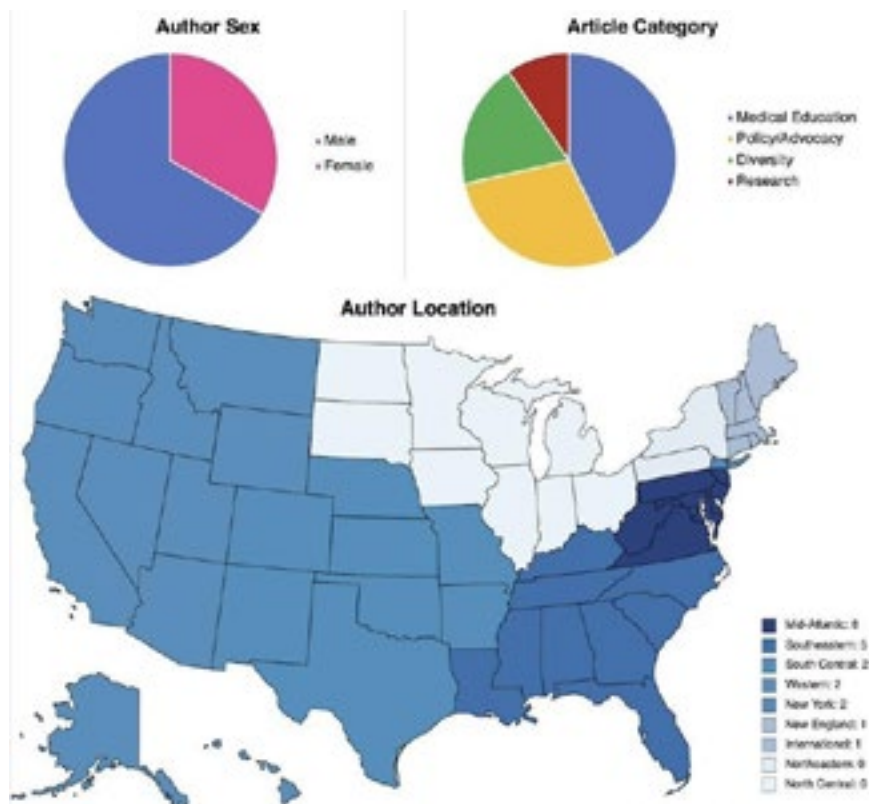
Introduction: The AUANEWS Medical Student Column (MSC) was introduced as a new platform for trainee engagement and debuted in 2023. The MSC aims to develop translatable science communication and research skills via a collaborative peer-review process. We evaluated the MSC's impact in its first year using author demographics and thematic content analyses.

Methods: All 21 articles accepted for publication in 2023 were included. Author demographics, including graduation year, sex, and location, were self-reported. Articles were qualitatively categorized by primary focus, and quantitative thematic content analysis of full texts was completed. Article text was preprocessed to eliminate stop-words using the NLTK library (Python v.3.12.0), and the frequency of most used terms per article was determined. Following this analysis, three reviewers categorized distinct words into themes.

Results: Figure 1 displays author characteristics and article themes. Of 36 total co-authors, 24 (67%) were male. Author affiliations represented a wide geographic range, covering 6 of 8 AUA sections, though the Mid-Atlantic and Southeastern sections were overrepresented (13/21, 62%). Of the articles, 9 focused on Medical Education, 6 on Policy/Advocacy, 4 on Diversity, and 2 on Research. A total of 22,498 words were analyzed, leading to the identification of 700 distinct frequent terms. These terms were categorized into four themes: Healthcare/Health Technology (242 occurrences), Education (251 occurrences), Academic/Research (151 occurrences), and Diversity/Representation (56 occurrences).

Conclusion: Engaging trainees with AUA Publications can increase interest in urology. The AUANEWS MSC reflects the current priorities of students, as authors emphasized diversity, educational initiatives, reflections on patient care, research advances, new technologies, and social issues. Trainees offer a valuable perspective on contemporary issues to facilitate progress of the specialty at large.

Funding: N/A



Podium #37

EVALUATION OF UROLOGY RESIDENTS AND RURAL PLACEMENT IN THE UNITED STATES

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Presented By: Ryan Wong, BS

Introduction: There is a notable gap in the rural urology workforce. While Doctors of Osteopathic Medicine (DOs) have traditionally practiced and trained in rural communities, it is uncertain whether this trend extends to urology. This study aims to address this gap by comparing the number of DO and MD urology residents in rural versus urban residency programs, with the goal of informing and improving urology residency training curricula.

Methods: For the 2023-2024 academic year, all urology residents were identified through current residency program websites. Residents' degrees and program addresses were collected. 5-year match trends were determined using residents' post-graduate years. Program classification followed two US Census definitions. 1) cities with populations over 50,000 were classified as urban. Those under 50,000 were rural. 2) programs were rural if greater than 20% of a city's population was rural.

Results: 1,7583 residents were identified from 135 residency programs. 94.4% of residents holds an MD degree. 5.5% hold a DO degree across 39 urology programs. The number of DOs that matched into urology has increased from 15 in 2019 to 26 in 2023 ($R^2=0.856$, $p=0.024$) and the percentage of matched DOs rose from 4.4% in 2019 to 6.7% in 2023 ($R^2=0.894$, $p=0.015$). Additionally, the number of programs having DO residents has significantly grown from 12 in 2019 to 20 in 2023 ($R^2=0.791$, $p=0.044$). When classified by population size, significantly more DO urology residents per program trained in rural programs (24) compared to urban programs (111) (1.67 vs. 0.52, $p=0.021$). Conversely, MD residents were more numerous in urban programs (12.83) versus rural ones (9.67) ($p=0.045$). However, the percentage of rural definition yielded no significant differences in the average number of DO training in rural versus urban areas.

Conclusion: There is increasing interest among DOs pursuing careers in urology, yet the overall DO urology resident workforce remains low. Notably, DO urology residents are not predominantly training in rural areas. To address the rural urology shortage, increasing the number of rural urology residency programs may be beneficial. This expansion could help MD and DO residents gain more training opportunities in rural settings, thereby contributing to a more balanced distribution of urologists across rural and urban areas.

Funding: N/A

Podium #38

"URINE MY THOUGHTS" - A Departmental Policy on Critical Incident Response

Rachel Locke, MD, Stephen Riggs, MD, Alison Keenan, MD

Department of Urology, Carolinas Medical Center, Atrium Health, Charlotte, NC

Presented By: Rachel Locke

Introduction: While medical errors are an inherent risk to performing surgery, surgeons may suffer from negative psychological, cognitive, and physical effects secondary to Second Victim Syndrome. We created a departmental program and policy to provide guidance when critical incidents occur.

Methods: A working group was created within the Department of Urology at Carolinas Medical Center to create a policy and associated action plan to address unforeseen events. The policy involves three separate phases: Pre-Crisis Preparation, Incident (Acute Crisis), and Defusing (Post-Crisis). The project was filed under the departmental Morbidity and Mortality (M&M) charter, garnering the same privacy protections afforded to M&M conferences.

Results: The Pre-Crisis phase involved policy writing and the creation of a "chain of command" for information dissemination during an acute crisis. Providers were encouraged to complete "Worksheets", which identified emergency contacts and included the opportunity to designate a peer contact. A peer contact is a person prospectively identified as someone from whom you would feel comfortable receiving support and sharing personal and/or professional information. Worksheets are kept in a secure OneDrive folder.

During an Incident, the first step is to ensure that those involved are safe and emergency contacts are notified as appropriate. Any team member is empowered to call a "Time Out" and notify leadership of incident per the pre-identified chain of command. Leadership will identify a "co-pilot" for the day. In mutual decision-making with the affected, they can offer to: cancel, cover or offload cases/clinic or double scrub cases. Leadership will then communicate with all involved over the course of the next 8-24 hours.

In the Defusing phase, leadership is to conduct a formal small group in person debrief within 48 hours. Existing hospital resources, such as the chaplain office, can be considered. The Diffusing phase can last several months and may involve a working-group member continuing to reach out at 1, 3, and 6 months.

Conclusion: We implemented a department-wide critical incident management strategy to support our colleagues during an acute crisis. We hope that others may feel inspired to have these conversations and utilize our framework. In the future, we plan to perform mock "incidents" and survey participants for quality improvement.

Funding: N/A

Podium #39

THE FUTURE IS BRIGHT FOR WOMEN IN UROLOGIC ONCOLOGY: TRENDS OVER TWO DECADES

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Presented By: Gabrielle R. Yankelevich, DO

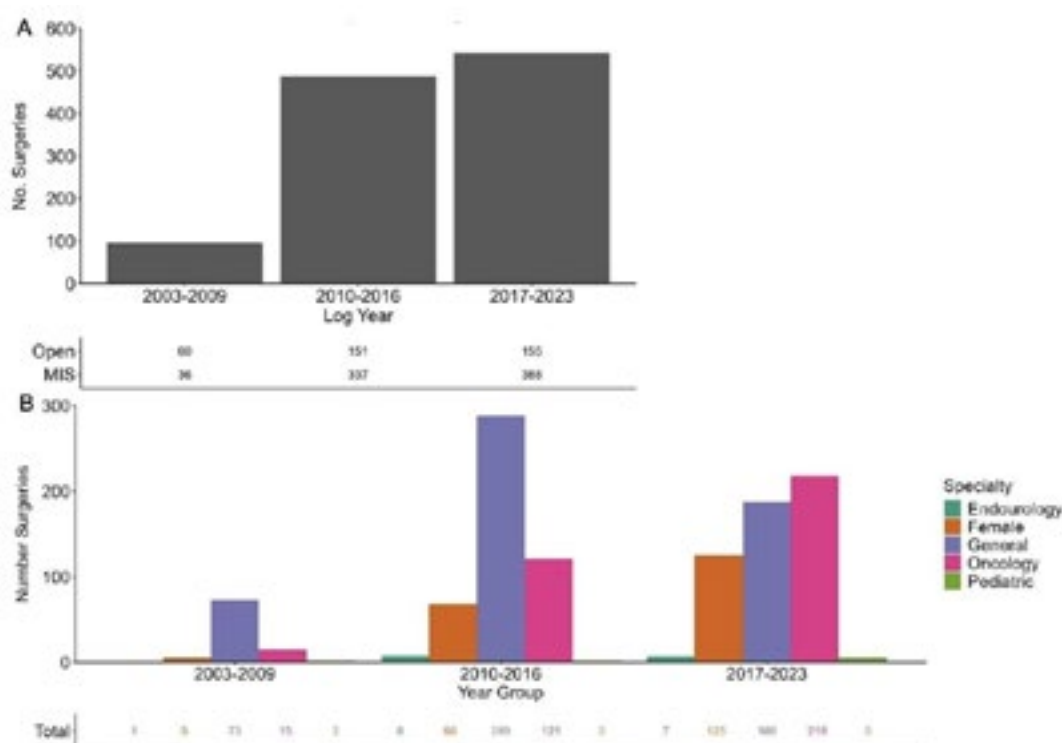
Introduction: The role of female surgeons in urology has been steadily increasing. We performed a contemporary review of American Board of Urology (ABU) case logs focused on oncologic procedures and evaluated the role of female surgeons over the past 2 decades.

Methods: Operative logs from ABU examinees from 2003-2023 for oncologic procedures performed on patients aged 18 years and older were analyzed. We identified open-approach (OA) and minimally invasive (MIS) radical nephrectomy (RN), partial nephrectomy (PN), radical nephroureterectomy (RNU), radical prostatectomy (RP), and adrenalectomy (RA) using CPT codes. Total case volumes by female surgeons as well as their reported fellowship training were recorded and tabulated. The counts and proportions of OA and MIS procedures were analyzed over time and by surgeon gender.

Results: From 2003-2023, 54,972 surgical procedures were reported to ABU with only 2.1% (1,127) being performed by female surgeons. Of these, 32.5% (366) were OA and 67.5% (761) were MIS. Despite the low overall composition of female-performed procedures, the number of surgeries performed by females increased over time (Figure 1A). Specifically, the number of cases rose from 0 in 2003 to 118 in 2022, with a peak in 2017 of 148 cases. Among female surgeons, the proportion of MIS surgeries increased over time, going from 37.5% to 69.1% to 71.5% in year groups of 2003-2009, 2010-2016, and 2017-2023, respectively. Females versus males performed comparably for OA for RP, RN, and RA; however, females performed more open PN (44.2% vs 28%) and RNU (29.5% vs 19.3%) than their male counterparts. Moreover, the number of procedures performed by oncology-fellowship-trained females rose from 15 cases in 2003-2009 to 218 in 2017-2023 (Figure 1B).

Conclusion: Our analysis of over the last two decades of data submitted to the ABU indicates that the surgical volume of oncologic procedures by female urologists has been increasing. Moreover, women continue to integrate both open and minimally invasive approaches in the changing surgical landscape. These findings demonstrate increased contributions by female surgeons to the field urologic oncology.

Funding: N/A



Podium #40

ONCOLOGIC EFFICACY OF REDUCED VERSUS STANDARD-DOSE BACILLUS CALMETTE-GUERIN (BCG) FOR NON-MUSCLE INVASIVE BLADDER CANCER

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Presented By: Meredith Elise Bernhard, BA, MD

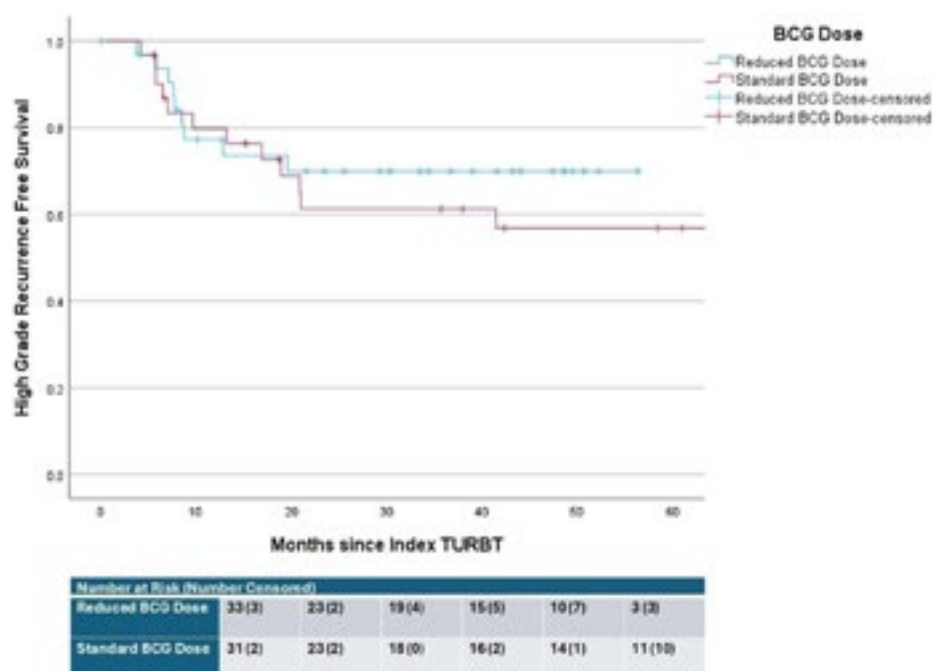
Introduction: The Bacillus Calmette-Guerin (BCG) shortage remains a challenge for treatment of non-muscle invasive bladder cancer (NMIBC). With the global BCG shortage projected to last at least several more years, understanding if, when, and how to split BCG vials is crucial for practitioners to effectively treat patients with intermediate and high risk NMIBC. The goal of this study is to compare the oncologic outcomes between patients receiving standard (50 mg) and reduced-dose (25 mg) intravesical BCG.

Methods: We retrospectively reviewed all patients at a single institution with intermediate or high risk NMIBC who received intravesical BCG from 2014-2022. Patients were stratified based on receiving standard-dose or reduced-dose BCG. We used Kaplan-Mier analysis to determine differences in time to any recurrence and time to high-grade recurrence between dosing groups and univariate logistic regression to determine if clinical factors predict tumor recurrence.

Results: A total of 115 patients received BCG, and 64 met inclusion criteria. Thirty-one (48.4%) received standard-dose BCG, and 33 (51.6%) received reduced-dose. All patients received 6 doses of induction. Standard-dose cohort received a median of 5 doses of maintenance BCG, and reduced-dose received a median of 9 doses. Median follow-up was 42 months in the standard-dose cohort and 27 in the reduced-dose cohort. Those receiving standard-dose BCG showed higher rates of tumor recurrence overall (71.0% vs 30.3%, $p=0.001$) and at 24 months (54.8% vs 27.3%, $p=0.025$), though no statistically significant difference in high-grade recurrence overall (41.9 vs 27.3, $p=0.217$) or at 24 months (29.0 vs 27.3%, $p=0.876$). The median time to tumor recurrence was 14.9 months in the standard-dose group and 8.2 in the reduced-dose group. The median time to high-grade recurrence was 21.2 months in the standard-dose group and 7.8 in the reduced-dose group. Age, race, gender, and initial tumor grade, stage, focality, and risk group showed no statistically significant correlation to tumor recurrence.

Conclusion: Reduced-dose BCG did not demonstrate adverse oncological outcomes in a large cohort of patients receiving adequate BCG for intermediate- and high-risk NMIBC when compared to standard dosing. In an era of BCG shortage, this presents a reasonable alternative with clinical efficacy.

Funding: N/A



Nephrolithiasis Podium Session

Podium #42

EVALUATION OF THERMAL INJURY RISK: IN-VIVO INSIGHTS FROM A PORCINE MODEL ON THULIUM FIBER LASER SAFETY FOR KIDNEY AND URETERAL STONES

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¹Department of Urology, Duke University Medical Center, Durham, NC, ²Thomas Lord Department of Mechanical Engineering and Materials Science, Duke University, Durham, NC, ³Department of Pathology, Duke University Medical Center, Durham, NC

Presented By: Megan E. Bock, MD

Introduction: The use of the Thulium fiber laser (TFL) for stone dusting has gained traction due to its potential to reduce the need for fragment extraction. However, TFL's high absorption in water raises concerns about thermal injury to the urothelium. We aimed to evaluate the potential for thermal injury during treatment of renal and ureteral stones in an in-vivo porcine model.

Methods: Two anesthetized pigs underwent procedures where cylindrical BegoStones (4-6 x 10 mm) were implanted and treated in both kidneys and ureters. Temperature measurements were taken near the stone-tissue interface using K-type thermocouples. Ureteroscopy with TFL (IPG Photonics) was performed using a 200- μ m fiber and room temperature saline irrigation at a rate of 20 mL/min. Three kidney treatments were performed at 1 J / 20 Hz, and three ureter treatments at varying settings: 0.8 J / 12 Hz, 0.2 J / 100 Hz, and 1 J / 20 Hz, including sham controls. Post-procedural examinations assessed the kidneys and ureters for thermal injury. Thermal dose was quantified as cumulative equivalent minutes at 43 °C (CEM43°C).

Results: In kidney treatments, maximum sustained temperatures recorded were 40 °C, 60 °C, and 95 °C, corresponding to CEM43°C values of 4.63, 1.32E+5, and 1.14E+194 minutes, respectively (Fig. a). Lower temperatures were noted in calyces with wider infundibula (12 mm) compared to those with narrower infundibula (6-8 mm). In the ureter, temperatures reached 32 °C (at 0.8 J / 12 Hz), 63 °C (at 0.2 J / 100 Hz), and 73 °C (at 1 J / 20 Hz), with CEM43°C values of 1.44E-8, 8.50E+9, and 7.82E+7 min (Fig. b). Higher temperatures and thermal doses resulted in visible urothelium damage in both kidney and ureter treatments (Fig. c-d). Histologic evaluation revealed extensive heat-induced damage, including acellular tissue and collagen homogenization at higher thermal doses (Fig. e-f), which was not observed at lower doses.

Conclusion: In an in-vivo porcine model, TFL lithotripsy at 20 W and 20 mL/min irrigation led to elevated intraluminal temperatures and extensive thermal damage to urothelium in both kidney and the ureter tissues. Thermal doses correlated well with gross and histologic pathology findings.

Funding: This project is supported by the National Institutes of Health (NIH) through grants 1P20DK135107-02 and 2R01DK052985-26.

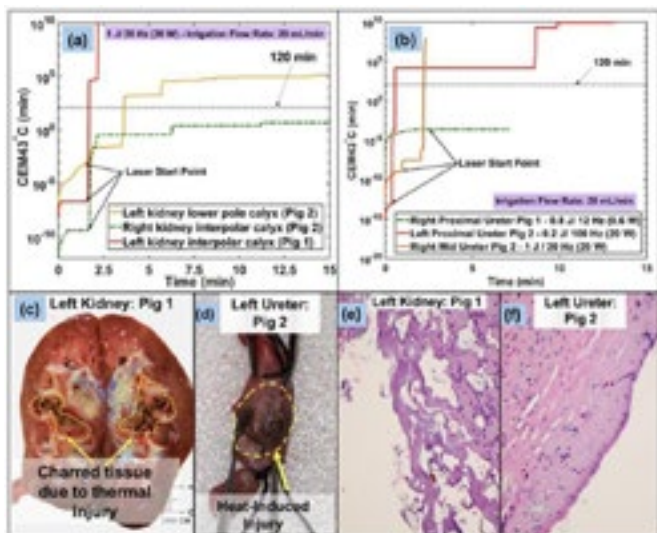


Fig. (a) Thermal doses of 3 stone treatments in the kidney; (b) Thermal doses of 3 stone treatments in the ureter; (c) Gross pathology of a kidney after treatment at 1 J / 20 Hz; (d) Gross pathology of a ureter after treatment at 1 J / 20 Hz; (e) Histologic image demonstrating thermal injury in the kidney; (f) Histologic image demonstrating thermal injury in the ureter

Podium #43

INCIDENCE AND CLINICAL PREDICTORS OF 90-DAY READMISSION FOLLOWING URETEROSCOPIC PROCEDURES

Genesis Dolgetta, Sarasota, FL¹, Tonya King, Sarasota, FL¹, Mia Franca, Sarasota, FL¹, Mark Mirabueno, Sarasota, FL², Maria Marquez Moreno, Sarasota, FL, Robert Carey, Sarasota, FL²

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Presented By: Genesis Dolgetta

Introduction: Patients undergoing ureteroscopy have a high risk-of-readmission. Although most of the literature focuses on 30-day-readmission-rates and predictors, less is known about 90-day-readmission-rates, which have been reported as high as 18% in large cohorts. This study seeks to evaluate predictors of 90-day-readmission following a ureteroscopy (URS).

Methods: Data was collected from an IRB-approved prospectively maintained database of ureteroscopy. The study cohort consisted of 5509 adult patients with a nephrolithiasis diagnosis who underwent URS between 2017 and 2024. Bivariate and multivariable proportional hazards regression models were used to identify predictors of 90-day-readmission.

Results: In this study, 5509 patients underwent ureteroscopy, of which 1215 (22.1%) were readmitted. Among the 5018 patients with no sepsis diagnosis within 90 days, 966 (19.3%) were readmitted. Of the 330 patients who presented with sepsis pre-operatively, 128 (38.8%) were readmitted and of the 161 patients who developed sepsis post-operatively, 121 (75.2%) were readmitted within 90-days after their discharge. Of the 1215 patients who were readmitted, 384 (31.6%) required repeat ureteroscopy procedures.

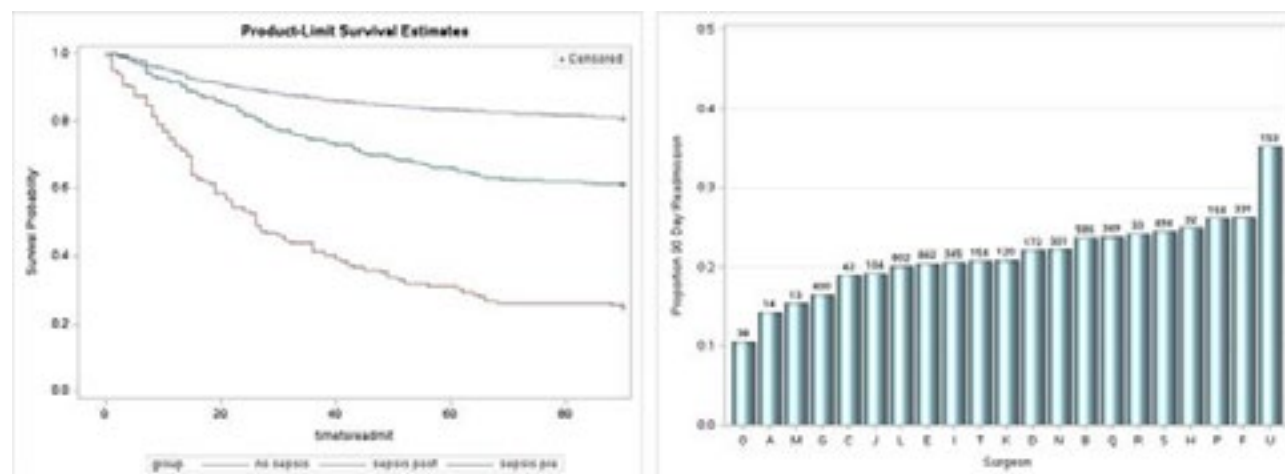
Adjusted for surgeon and all other predictors in the model, the risk of 90-day-readmission post-URS was 1.2 times greater for those >70 years old ($p=0.004$), 1.4 times greater for those with a history of hypertension ($p<0.001$), 1.3 times greater for those with creatinine >1.5 ($p=0.002$), 1.4 times greater for those with hematocrit <35 ($p<0.001$), 1.3 times greater for those with chloride <104 ($p=0.005$), 1.3 times greater for those with maximum HR >100 ($p<0.001$), and 1.3 times greater for those with maximum RR >22 ($p=0.001$). Urine WBC >100 was a significant predictor of readmission bivariate ($p<0.001$). Ureteral stents were used in 91% of these cases and showed no statistical significance ($p=0.074$) in prediction of readmission-within-90-days.

Conclusion: Patients who were diagnosed with sepsis, either pre- or post-URS were more likely to be readmitted-within-90-days and had a shorter time-to-readmission. Other clinical factors associated with readmission included age, hypertension, creatinine, hematocrit, chloride, maximum heart and respiratory rate. Within 90-days of discharge, 7% of all patients required repeat ureteroscopy procedures. Readmission-rates were not significantly different with the use of ureteral stents.

Figure 1a: Readmission-rates for patients who had no sepsis (blue), sepsis prior-to-ureteroscopy (green), and sepsis-post (red)

1b: Readmission-rate per-surgeon

Funding: N/A



Podium #44

ULTRASOUND-ONLY PCNL: ROCKING SAFETY AND EFFECTIVENESS WITHOUT X-RAY

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Presented By: Maria Camila Velasquez Escobar, MD

Introduction: Ultrasound-guided, x-ray free percutaneous nephrolithotomy (PCNL) offers a viable alternative to traditional PCNL, which relies on fluoroscopy for access and other procedural stages. Ultrasound approaches have shown similar safety and efficacy, associated with reduced costs, better visualization of peri-renal anatomy, and the elimination of radiation exposure. While most research focuses on ultrasound for access, few studies have examined the use of ultrasound throughout the entire procedure. This study aims to compare the safety and efficacy of pure ultrasound PCNL to fluoroscopy-guided PCNL at a single tertiary center.

Methods: This single-center retrospective cohort study included patients who underwent PCNL between 2023 and 2024. Demographic characteristics and perioperative variables were extracted from the electronic medical record. Patients were divided into two groups: ultrasound-only and fluoroscopy-guided. The primary outcomes were postoperative complication rates, classified by Clavien-Dindo grades, and stone-free rates, defined as no residual fragments larger than 3 mm on postoperative imaging. For patients considered stone-free at the end of the procedure, concordance between intraoperative and postoperative imaging findings was also assessed. Logistic regression analysis was used to evaluate these outcomes.

Results: The cohort included 100 patients, with 53 in the ultrasound-only group. The average age in the ultrasound group was 55 years, and 62.3% were female with no differences compared to the fluoroscopy group. Stone size was larger in the ultrasound group with an initial stone burden greater than 2 cm seen in 94.3 % of patients, 75.4% having Guy Scores of 3 or 4. Postoperative complications occurred in 9 patients from the ultrasound-only group, compared to 13 in the fluoroscopy group ($p=0.19$) with no significant differences in Clavien-Dindo grades observed ($p=0.62$). The stone-free rates were 37.7% and 40.4% in the ultrasound and fluoroscopy groups respectively ($p=0.78$). Postoperative imaging concordance rates were 31.1% and 42.9% respectively ($p=0.256$). For ultrasound-only cases 90.6% of the access were achieved by a fellow or a resident compared to 61.7% in the fluoroscopy arm ($p=0.003$).

Conclusion: Pure ultrasound-guided PCNL demonstrates comparable safety and efficacy outcomes to fluoroscopy-guided PCNL, and is a technique that can be more easily learned and adopted by trainees.

Funding: N/A

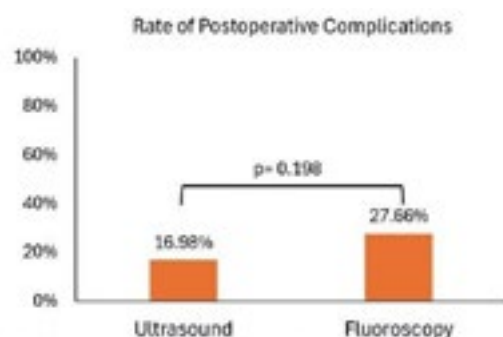


Figure 1A. Comparison of postoperative complication rates between the ultrasound-only group and the fluoroscopy group.

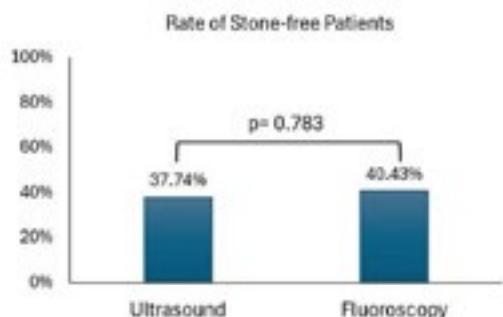


Figure 1B. Comparison of the stone-free rates between the ultrasound-only group and the fluoroscopy group.

Podium #45

SPEAKING ABOUT STONES: EXPLORING DIFFERENCES IN KIDNEY STONE SURGICAL MANAGEMENT AND COMMUNICATION IN THE LIMITED ENGLISH PROFICIENCY POPULATION

Michael Dubic, MD¹, Anthony Texiera, BA¹, Lila McGrath, BS², Nathan O'Connell, PhD³, Ornob Roy, MD¹, David Thole, BS⁴, Lila McGrath, BS⁴, Angela Sapu, BS¹

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Presented By: Anthony Joseph Teixeira, BA

Introduction: Patients with lower socioeconomic status experience disparities in management of nephrolithiasis. For many of these patients, Limited English proficiency (LEP) is an additional challenge encountered while navigating towards definitive stone treatment. We sought to investigate if LEP was associated with delays in definitive stone treatment and disparities in pre- and early post-operative symptoms, management, and communication.

Methods: We retrospectively identified patients who underwent surgical stone treatment by our department from 2022-2023. We calculated the time to surgery from the clinic visit when surgery was decided. Pre-operative symptoms and management, the type of initial encounter, number of canceled appointments, and phone call encounters prior to surgery were compared between LEP and EP patients using Fischer's Exact Tests and multivariable general linear regressions.

Results: 80 LEP and 260 EP patients were identified. 94% of EP and 100% of LEP patients underwent surgery within 90 days of clinic visit ($p=0.046$). Fischer's Exact Test identified differences in the type of primary encounter ($p=0.009$) with LEP patients having higher rates of ED presentation and lower rates of office consults (45.6% vs 26.3% for ED visits and 48.1% vs 64.0% for office visits). In multivariate regressions controlling for confounders, LEP patients were 4.53 times more likely to present with renal colic ($p=0.017$), 2.38 times more likely to get a preoperative stent ($p=0.038$), and 2.74 times more likely to have a positive preoperative urine culture ($p=0.010$). LEP patients were 3.18 times more likely to miss or cancel an appointment ($p=0.007$) and predicted to have fewer phone encounters (IR: 0.58, $p=0.028$) (Table 1).

Conclusion: LEP was not associated with delays to definitive, surgical stone management. LEP was associated with more severe symptoms and urgent presentations, suggesting these patients undergo more operative procedures and treatments, leading to increased upfront health care costs. The higher rates of missed or canceled appointments and less documented office communication may result from a combination of social drivers of health (SDH) and a poor understanding of post-operative instructions. A review of our translated patient materials and in-office SDH screening tool is warranted to potentially identify the cause of these differences and guide interventions for quality improvement.

Funding: N/a

Outcome	Odds Ratio (C.I.) for LEP patients	P-value
Presence of Renal Colic	4.53 (1.42-17.41)	0.017
Presence of Preoperative Stent	2.38 (1.05-5.45)	0.038
Positive Preoperative Urine Culture	2.74 (1.29-6.08)	0.010
Missed or Canceled Appointment	3.18 (1.39-7.58)	0.007
Additional Phone Calls	0.58* (0.42-0.81)	0.002
*This is an incidence rate ratio due to the model being a negative binomial model		

Podium #46

TIMING OF UPPER URINARY TRACT STONE SURGERY AFTER INITIAL PRESENTATION FOR RENAL COLIC WITH CONCOMITANT URINARY INFECTION

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Presented By: James Frisbie, MD

Introduction: Urinary tract infection (UTI) in the setting of urolithiasis ranges from non-obstructing calculi with cystitis to obstructive pyelonephritis with sepsis. Urologists must determine when it is appropriate to proceed with stone surgery, as infectious complications are associated with early intervention from inadequate antibiotic treatment, as well as delays in surgery due to antibiotic resistance or prolonged pre-operative ureteral stent dwell times. We investigated patients who presented with renal colic and concomitant UTI, the effect of timing to definitive stone surgery with respect to perioperative outcomes/costs, as well as optimal timing of surgery.

Methods: Using the 2018 Healthcare Utilization Project databases (MD, FL, NY, and WI), we identified patients with renal colic who underwent upper urinary tract stone surgery within 3 months. Patients were stratified by infection status at presentation (none, UTI, sepsis) and time to definitive stone surgery (<1, 1-2, 2-4, > 4 weeks). Using a binary logit model and ordered logistic regressions with average marginal effects, we estimated the probability of 30-day post-operative revisit based on time to surgery, evaluated the effect of surgical timing on the probability of cost quartiles, and estimated variables associated with timing of definitive surgery.

Results: There were 11,695 patients who met inclusion criteria, including 1654 (14%) with UTI and 914 (8%) with sepsis. Time to surgery was not associated with differences in 30-day post-operative revisits for either infection group. There were significantly higher differences in total episode-related costs for surgery >4 weeks regardless of infection status ($p<0.001$), and pre-operative cost differences were significantly higher across all infection groups and time periods to surgery ($p<0.001$). UTI or sepsis at presentation showed a 7.2%-point and 11.4%-point increased probability, respectively, of surgery at >4 weeks relative to the no infection group ($p<0.001$).

Conclusion: For patients presenting with urolithiasis and UTI, we found no benefit in delaying definitive surgery with respect to 30-day post-operative revisits. Additionally, delays led to higher total episode-related costs, largely driven by the pre-operative period. UTI diagnosis at the time of initial ED presentation was associated with delays in definitive stone surgery, illustrating the importance of conducting future prospective studies evaluating the impact of surgical timing on patients with urolithiasis and UTI.

Funding: N/A

TABLES AND FIGURES:

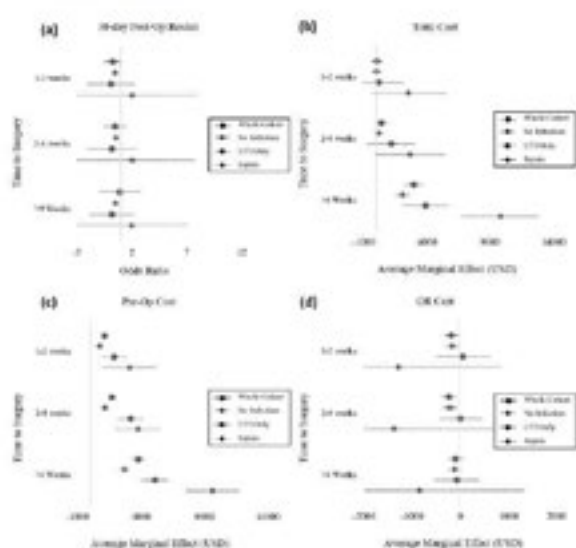


Figure 1. Forest plots depicting the results of our binary logit model and ordered logistic regression models with AMEs predicting our outcomes of 30-day post-operative revisit and episode-related costs.

Podium #47

FACTORS REPORTED BY CONGENITAL UROLOGY PATIENTS AFFECTING SUCCESS AND QUALITY OF TRANSITION TO ADULT CARE: A QUALITATIVE STUDY BY SEMI-STRUCTURED INTERVIEWS

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Presented By: Hudson Tate, B.S.

Introduction: Congenital urology patients often require complex reconstructive procedures during childhood needing ongoing monitoring into adulthood. Currently, there has been limited exploration into the effectiveness of transition practices and the factors influencing the transition process in these patients. This study aimed to learn directly from patients what factors affect their experience with transition from pediatric to adult care.

Methods: Diagnosis codes were utilized to identify a group of congenital urology patients who had been cared for at a single free-standing children's hospital and were 18 to 30 years old as of January 1, 2024. Included diagnoses were myelomeningocele status post bladder augmentation, bladder exstrophy, prune belly syndrome, posterior urethral valves, and cloacal anomalies. Retrospective chart review abstracted contact information and demographic factors. Patients were then recruited for a semi-structured interviews according to an interview template addressing factors affecting transition to adult care. Interviews were conducted using Zoom with embedded transcription. Interview transcripts were reviewed and coded for thematic analysis.

Results: 150 eligible patients were identified, with 48 successfully contacted, and 9 agreeing to participate in the interview. 8/9 patients were male. 3 (33%) patients had bladder exstrophy, 3 (33%) had cloacal anomalies, and 3 (33%) had spina bifida. Average age of patients was 26 (range 19-30) years. Six (66%) had transitioned to adult care and three (33%) continued to see their pediatric urologist. Thematic analysis of semi-structured interviews identified barriers to transition including emotional difficulties such as sadness for leaving pediatric providers, lack of familiarity with the adult healthcare system, perceived knowledge gaps among adult providers, and lack of coordination of care. Facilitators of transition included having an established provider guiding the process, having met the adult provider prior to transition, and having a patient coordinator to help with transition (as reported by spina bifida patients). Recommendations from patients to improve the process included more patient education, promoting support groups and peer connections, improved communication between pediatric and adult providers, and considering establishing a dedicated transitional care coordinator and/or transitional urology clinic.

Conclusion: Semi-structured interviews of congenital urology patients have provided patient-directed potential target areas for improving the transitional care process.

Funding: DK137307 grant with UAB-UCSD O'Brien Center U54 support

Podium #48

PERIPROCEDURAL ANTIBIOTIC PROPHYLAXIS IS OVERUSED IN PEDIATRIC PENILE AND GROIN AMBULATORY PROCEDURES

Brendan Frainey, MD¹, Isabella Zaniletti, PhD², Leslie Peard, MD¹, Sophie Katz, MD, MPH³, Lauren Corona, MD¹

¹Department of Urology, Division of Pediatric Urology, Monroe Carell Jr. Children's Hospital at Vanderbilt, Vanderbilt University Medical Center, Nashville, TN, ²Children's Hospitals Association (Lenexa, KS), ³Department of Pediatrics, Division of Pediatric Infectious Diseases, Monroe Carell Jr. Children's Hospital at Vanderbilt, Vanderbilt University Medical Center, Nashville, TN

Presented By: Brendan Thomas Frainey, MD

Introduction: Most pediatric penile and inguinal/scrotal surgeries are defined as clean (class I) surgical wounds and, therefore, surgical antibiotic prophylaxis (SAP) is not recommended in uncomplicated cases. This study aims to better understand the national and individual hospital trends in SAP for ambulatory pediatric urologic surgeries at the lowest risk for iatrogenic infection.

Methods: We queried the Pediatric Health Information System (PHIS) database for males (29 days to 18 years) undergoing outpatient penile and/or "groin" (inguinal/scrotal) procedures from 2016-2023. SAP use was abstracted. Patients undergoing penile or groin procedures for emergent conditions (i.e. incarcerated hernia), utilizing a laparoscopic approach, or in combination with another procedure were excluded. Demographic and clinical characteristics were compared between procedures with "appropriate use" (no antibiotics) vs "overuse" (+antibiotic use) and a multivariable logistic regression model with generalized estimating equation to account for clustered data on hospitals was performed to identify factors associated with increased odds of overuse. Secondary outcomes included post-operative emergency department visits, surgical site infections, allergic reactions, and Clostridium difficile infections. National trends in SAP use were compared by year and between hospitals that consistently reported data over the study period.

Results: 108,419 procedures (46% penile, 42% groin, 12% combination) were included. Median age at surgery was 2 (IQR 0,7) years. Overall, 14% (15,706/108,419) had SAP overuse. Groin procedures had higher rates of antibiotic overuse compared to penile procedures (19% vs 8%, $p < 0.001$). On adjusted analysis, groin procedures (aOR 2.12), combined groin + penile procedures (aOR 2.43), older age (aOR 2.54), and urologist as proceduralist (aOR 1.52) were independently associated with greater odds of antibiotic overuse. Rates of secondary outcomes were similar between groups. There was significant variability in SAP between centers (range 0% to 32% groin; 0% to 16.7% penile over the study period, $p < .001$) (Figure).

Conclusion: Despite the American Urological Association Best Practice Policy Statement on SAP in 2008, overuse remains significant (14%) for uncomplicated pediatric penile and groin procedures with significant variability in use between hospitals. Groin procedures, older patients, and a urologic proceduralist were associated with increased odds of antibiotic overuse. Continued education and interventions to improve antimicrobial stewardship are needed for pediatric urologists.

Funding: N/A

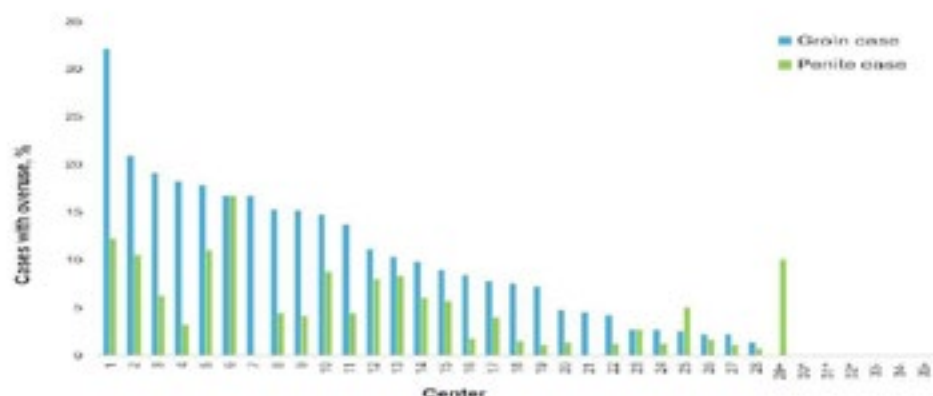


Figure. Variation in peri-procedural antibiotic prophylaxis in ambulatory groin and penile cases (2016-2023)

Note: Of the 47 contributing centers in the Pediatric Health Information System (PHIS) between 2016 and 2023, 12 did not consistently report ambulatory surgery data and are excluded from this figure.

*Denotes a center with 0% rate of antibiotic overuse (groin and penile cases)

+Denotes a center with 0% rate of antibiotic overuse for groin cases, no reported penile cases

+Denotes a center with 0% rate of antibiotic overuse for groin cases

Podium #49

CHARACTERIZATION OF THE URINARY AND INTESTINAL MICROBIOMES IN INDIVIDUALS WITH SPINA BIFIDA

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Presented By: Brendan Thomas Franey, MD

Introduction: Improving care for urinary tract infections (UTI) in spina bifida (SB) patients requires a better understanding of the urinary and intestinal microbiomes. The objective of this study was to characterize the composition, diversity and evolution of the urinary and intestinal microbiomes in patients with SB. We hypothesized that these microbiomes will differ in both diversity and composition from healthy children and that alterations in these microbiomes will influence UTI risk.

Methods: We performed a prospective, single-center study of individuals aged 0-30 with a diagnosis of SB between 10/2023 to 09/2024. Catheterized urine and stool samples were obtained during urodynamics. Hand swabs were obtained from subjects performing clean intermittent catheterization (CIC). Expanded quantitative urine culture (EQUC) and 16s RNA amplicon sequencing were performed on urine, stool, and skin specimens. Demographic and clinical data were obtained. Descriptive analyses of the clinical and EQUC data were performed. Sequencing reads were processed by DADA2 workflows, bioinformatically decontaminated using Decontam, and visualized with phyloseq tools.

Results: Sixty-nine subjects met inclusion with a mean age of 7.2 (range 0-20) years old. Thirty-eight (55%) subjects were male and 61 (88%) were white. Forty (59%) utilized CIC. Fifteen (22%) subjects had a UTI within the past year. Overall, 67/82 (82%) urine specimens displayed bacterial growth on EQUC. Bacterial DNA was detectable (>500 16S rRNA reads) in 28/30 (97%) urine specimens and 28/28 (100%) stool samples. *Escherichia-Shigella* spp. were present in 20/30 (67%) of urine specimens and were the dominant genera in 50% (Figure). Subjects with a history of prior UTI had greater abundance of *Escherichia* in the stool than those without a history of UTI ($p < 0.05$). Subjects on CIC had greater abundance of *Staphylococcus* spp. in the urine relative to those not on CIC ($p < 0.05$).

Conclusion: Eighty-two percent of subjects had growth on EQUC and 97% had detectable bacterial DNA in the urine by amplicon sequencing, which are significantly higher than published studies analyzing catheterized urine specimens from healthy children. *Escherichia* is abundant within the urine of individuals with SB and significantly more abundant in the stool of individuals with prior UTI.

Funding: Vanderbilt Institute for Clinical and Translational Research (VICTR) Grant – VR72471

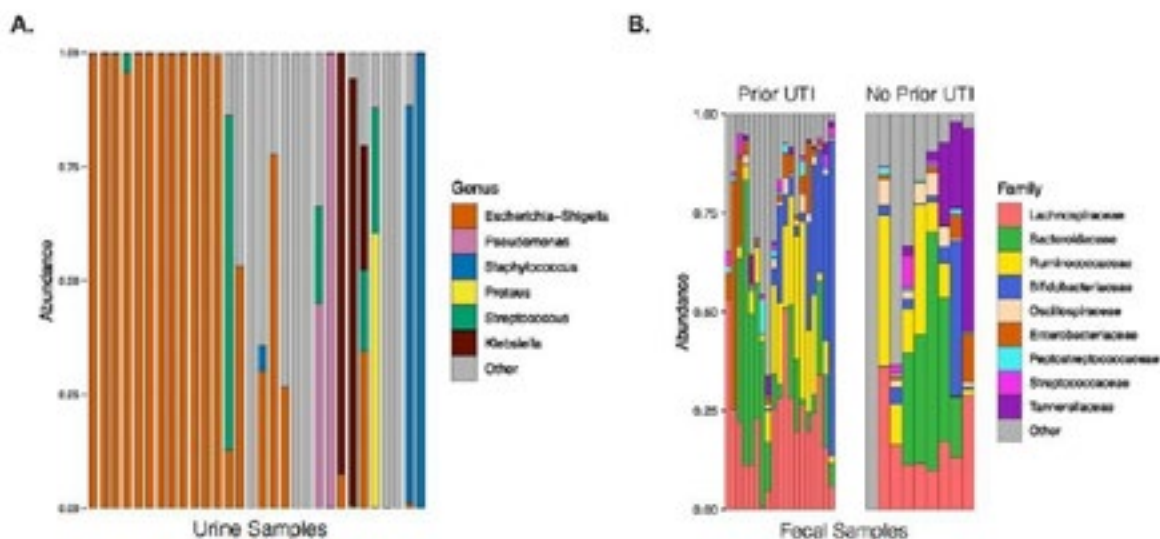


Figure. A: 16s rRNA amplicon sequencing results from urine samples from patients with spina bifida (n = 30). B: 16s rRNA sequencing results from the stool of patients with spina bifida, stratified by history of prior urinary tract infection (n = 28)
*Note each bar on the x-axis indicated a unique patient

Podium #50

UTILITY AND FEASIBILITY OF WRITTEN INSTRUCTIONS FOR REDUCING NIL PER OS (NPO) VIOLATIONS FOR ELECTIVE UROLOGICAL PROCEDURES IN PEDIATRICS

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Presented By: Charis Royal

Introduction: NPO (nil per os) violations carry the risk of aspiration of gastric contents if undetected and can result in day-of-surgery cancellations (DoSC), leading to wasted time and resources, as well as emotional distress for the family. The method of information delivery to families plays an important role in improving compliance with instructions. Our aim is to compare the standard hospital practice of delivering NPO instructions via phone call with the provision of printed NPO guidelines at the patient's last clinic visit, in terms of NPO violations.

Methods: Patients undergoing elective pediatric urological surgical procedures at a tertiary hospital were included in the study. Patients were either provided with printed NPO guidelines (intervention group) or received only the standard hospital phone call (control group). Incidents of NPO violations and associated factors were recorded and compared between both groups.

Results: Between September 2021 and June 2022, 843 patients were included in the study. Printed NPO guidelines were given to 249 patients (intervention group), while 594 patients received only the standard hospital phone call (control group). NPO violations were reported in 6 patients (2.4%) in the intervention group and 18 patients (3%) in the control group (P-value: 0.6). No significant difference in NPO violation rates was found between the groups with respect to age, race, distance to the hospital, insurance, surgery scheduling time, or the time since the last clinic visit. NPO violations led to the cancellation of 2 cases and the delay of 4 cases in the intervention group, while 6 cases were canceled and 12 delayed in the control group (Table 1).

Conclusion: Providing families with printed NPO instructions did not result in a significant reduction in the rate of NPO violations during the study period. Future efforts should explore new methods to further reduce NPO violations.

Funding: N/A

Table 1- Comparison between intervention and control groups

	Intervention N = 249	Control N = 594	P value
NPO violation	6 (2.4%)	18 (3%)	0.82
Age (median (range))	8.5 (6-14)	10 (6-133)	0.34
Race			0.57
African American	6 (100%)	15 (83.3)	
White	0	1 (5.6)	
Other	0	2 (11.1)	
Insurance			0.39
Medicaid	100 (6)	88.9 (16)	
Private	0	11.1 (2)	
Distance to hospital in miles (median (range))	9.7 (1-26)	12 (6-119)	0.156
Schedule time			0.21
A/M	6 (100%)	14 (78%)	
P/M	0	4 (22%)	
Type of surgery			0.77
Circumcision/ revision	6 (100)	15 (83%)	
Hypospadias repair/ revision	0	1 (6%)	
Orchiopexy	0	2 (13%)	
Effect of NPO violation			1
Delayed cases	4 (67%)	12 (67%)	
Cancelled cases	2 (33%)	6 (33%)	
Time from last clinic visit to OR	57.5	37	0.28
Prior surgeries	16.7 (1)	5.55 (1)	0.394

Podium #51

DO IMAGING FINDINGS OF RETAINED GONADS IN INDIVIDUALS WITH DSD IMPACT CLINICAL MANAGEMENT?

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Presented By: Megan A. Stout, MD

Introduction: Historically, prophylactic gonadectomy was recommended for patients with a difference in sexual development (DSD) diagnosis due to an associated increased risk of malignancy. This paradigm has changed over time as the true risk of gonadal malignancy has been better elucidated, allowing individualized gonadal management based on risk stratification of DSD diagnosis and shared decision-making with patients. As more gonads are retained, there is an increasing need for the development of appropriate surveillance regimens including a combination of self-exam, biopsy, and imaging for at-risk patients. The objective of this study is to investigate the frequency of surveillance imaging of retained gonads in patients with DSD and to elucidate how often imaging findings lead to changes in management. The secondary objective is to investigate if abnormal imaging findings correlate with gonadal pathology (i.e. gonadoblastoma, germ cell neoplasia in situ [GCNIS] or germ cell tumor [GCT]) in patients who undergo gonadal surgery.

Methods: Patients seen in our pediatric multidisciplinary DSD clinic from 2016-2024 were identified. Inclusion criteria included patients with a DSD diagnosis, documentation of retained gonads, and imaging for review. Exclusion criteria included patients that underwent bilateral gonadectomy prior to presentation and lack of gonadal imaging. Retrospective chart review was performed to identify the frequency and type of imaging for patients with retained gonads and any findings that led to changes in management. Gonadal pathology was also abstracted in patients that underwent gonadal surgery.

Results: 11 patients at median age of 11y at diagnosis were included, with 17 gonads reviewed. Imaging surveillance included US, CT, and MRI. Median number of images per patient was 1 (per year) with a 2.2y median duration of follow up. Abnormal imaging findings were found in 5 patients. Of those with abnormal findings, further management included no change (20%, n=1), continued surveillance imaging (20%, n=1), or surgical intervention (60%, n=3). 2/3 patients underwent gonadal surgery following abnormal imaging and none had abnormal gonadal pathology.

Conclusion: Imaging is one tool utilized in surveillance regimens for DSD patients with retained gonads. Abnormal findings denoted on imaging poorly correlates with gonadal pathology, however cohort size is limiting. Further evaluation of appropriate surveillance regimens in this population is required.

Funding: N/A

Podium #52

CURRENT PRACTICES AND CHALLENGES IN MANAGING BEDWETTING: A GEORGIA CHAPTER OF THE AMERICAN ACADEMY OF PEDIATRICS SURVEY

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Presented By: Benjamin Press

Introduction: Primary nocturnal enuresis (PNE) is a prevalent disorder among children and adolescents that, if left untreated, can lead to significant physiological and psychological consequences. Addressing and managing PNE effectively is crucial for preventing these downstream effects. Our study aimed to evaluate current practices in PNE management by surveying members of the Georgia Chapter of the American Academy of Pediatrics (GA AAP) to understand contemporary approaches and identify areas needing improvement.

Methods: An anonymous survey comprising 24 questions was distributed to approximately 1,500 pediatricians affiliated with the GA AAP. This survey focused on the diagnosis and management strategies for PNE.

Results: The majority of the 130 respondents had > 20 years of clinical experience. Of the respondents, 68% worked in suburban areas, and over 80% managed 1-10 PNE cases monthly. While 92.3% of pediatricians acknowledged the importance of addressing bedwetting, over 50% felt current treatments "do not meet the needs of families," and nearly 70% viewed "finding an effective treatment" as the main challenge.

For children aged 5-7, all respondents recommended non-interventional therapies (e.g., fluid restriction, bladder training). However, for those aged 8-11, the proportion recommending non-interventional therapy dropped to 53.5%, with 44.6% suggesting interventional therapies (medical treatments or bedwetting alarms). Less than 2% would refer to a pediatric specialist as the first step in management. For children aged 12-15, 54.6% would consider interventions, 20% would suggest non-interventional approaches, and 25.4% would refer to a specialist. For adolescents aged 16 and older, most (69.2%) would opt for specialist referral. An association was found between increasing age and increased use of interventional therapy (0% vs 45.3% vs 84.3% vs 61.5% for ages 5-7, 8-11, 12-15, and 16+, respectively; $p < 0.001$).

No respondents recommended interventional therapies before age 8. About 40% acknowledged delaying interventional treatment due to perceived ineffectiveness, yet 75% would consider early intervention if better non-pharmacologic options were available.

Conclusion: PNE impacts a child's psychosocial development, highlighting the need for effective treatment options. The current dissatisfaction with available treatments underscores the necessity for improved therapeutic approaches. Education for primary care physicians, often the first point of contact for PNE, is essential to enhance management and patient outcomes.

Funding: N/A

Podium #53

A NEW METHOD FOR TREATING LEVEL III IV RCC TUMOR THROMBUS WITHOUT CARDIOPULMONARY BYPASS

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Presented By: John Andre Libertino, MD

Introduction: Level III & IV tumor thrombi are routinely treated with cardiopulmonary bypass (CPB) +/- cardiac arrest (CA). We have developed a new treatment algorithm which eliminates the need for CPB & CA. Additionally, it reduces the complications, morbidity & mortality associated with these procedures and makes subsequent radical nephrectomy and residual thrombectomy simpler and safer.

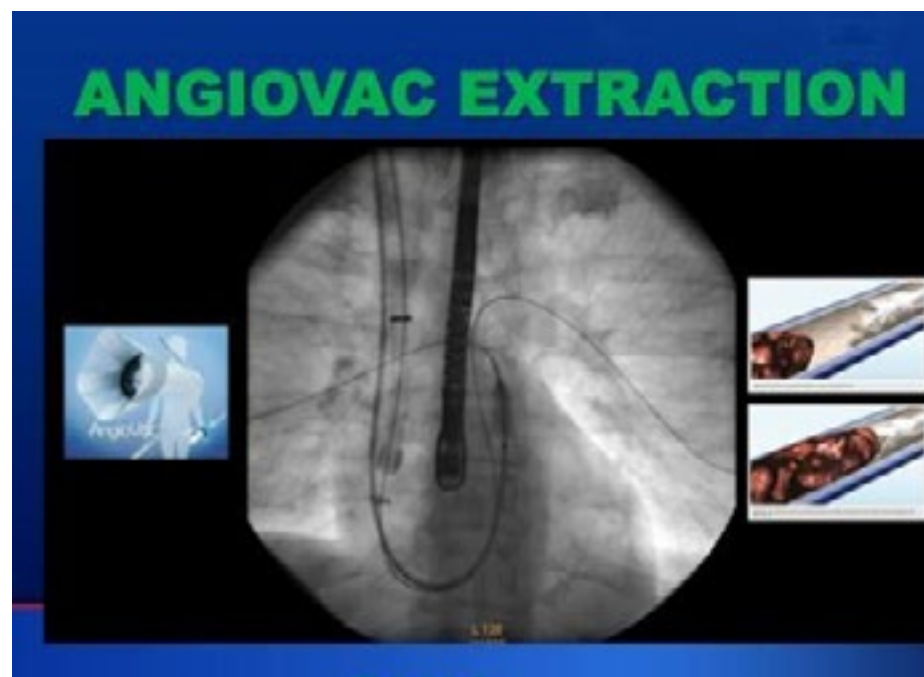
Methods: We have utilized a percutaneous, transvenous, endovascular vacuum extraction device (AngioVac, Figure 1) to remove the level III & IV thrombus to a level below the hepatic veins, resulting in endovascular downstaging. We retrospectively compared the results of these four patients to our experience with 70 patients who underwent CPB & CA, as a proof of concept and safety and efficacy study. The median length of operative time, median intraoperative blood loss, number of postoperative blood transfusions, surgical complications, and length of stay (LOS) were assessed. The technique of endovascular downstaging will be presented in detail.

Results: Median operative time and median blood loss for endovascular downstaging group: 280 minutes and 1875ccs; for the Median Sternotomy CPB group: 600minutes and 5500ccs; and for Minimum Access CPB group: 476 minutes and 3750 ccs respectively. There were no surgical complications or deaths in this high risk population. Median LOS was 5.5 days.

Conclusion: Endovascular downstaging creates a new paradigm for level III & IV tumor thrombus management. It reduces the tumor thrombus below the hepatic veins, making subsequent radical nephrectomy and remaining tumor thrombectomy simpler and safer. It completely eliminates CPB & CA and all its inherent complications. Additionally, it allows this life saving surgery to be carried out in medical centers or hospitals where cardiac surgery is unavailable or when CPB or CA is medically contraindicated.

Figure 1. Image of Endovascular Downstaging procedure, with TEE, Pulmonary Artery balloon catheter and AngioVac device in place

Funding: Gerard Cosgrove Research Foundation Grant.



Podium #54

SYSTEMIC THERAPY FOR RENAL CELL CARCINOMA WITH A TUMOR THROMBUS: MANAGEMENT AND OUTCOMES FROM THE INTERCONTINENTAL COLLABORATION ON RENAL CELL CARCINOMA DATABASE

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Presented By: Maxwell Louis Sandberg, MD, MS

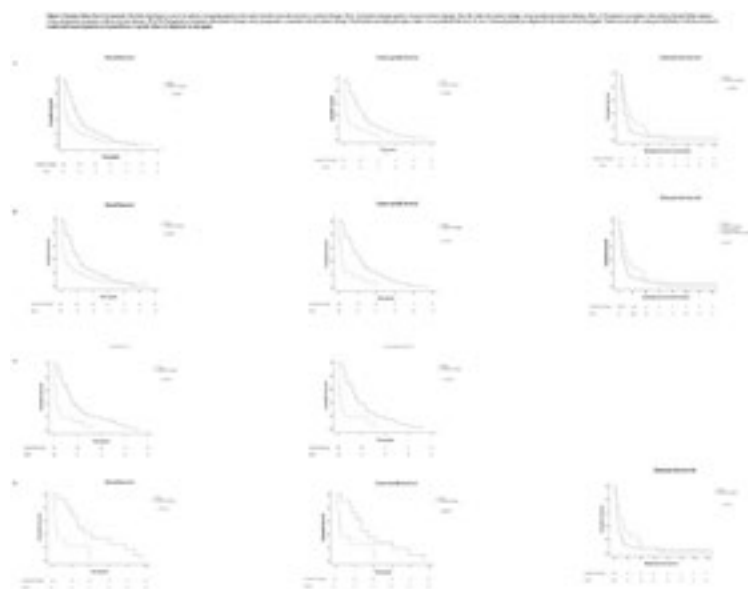
Introduction: Renal cell carcinoma with tumor thrombus (RCC-TT) has traditionally been treated with surgical resection alone but with advances in systemic therapy clinicians are often now employing a multimodal approach to treatment. The true benefit of systemic therapy is unknown for RCC-TT. The primary objective of this study was to assess the utility in using systemic therapy for patients with RCC-TT. The secondary objective was to assess the utility of systemic therapy in subgroups of patients with RCC-TT.

Methods: This was a multi-institutional study conducted across North America, Central/South America, and South Korea. Patient information was retrospectively reviewed from 2006-present, and every patient underwent radical nephrectomy with tumor thrombectomy plus/minus systemic therapy. Systemic therapy was defined as chemotherapy, immunotherapy, targeted therapy, or any combination of these. Secondary endpoint analysis included adjuvant versus no adjuvant systemic therapy, patients metastatic prior to surgery who either did or did not receive preoperative systemic therapy, and patients who became metastatic after surgery who then subsequently did or did not receive systemic therapy.

Results: 459 patients were included in the primary analysis (178 systemic therapy at any point before or after surgery and 281 no systemic therapy). Overall survival (OS) favored the systemic therapy grouping (2.4 years) compared to no therapy (1.4 years; $p=0.013$) (Figure 1). Cancer-specific survival (CSS) also favored the systemic therapy grouping (2.4 years) compared to no therapy (0.8 years; $p<0.001$). OS ($p=0.110$) and CSS ($p=0.505$) were not different based on therapeutic regimen. OS favored adjuvant systemic therapy (2.5 years) compared to no therapy (1.4 years; $p=0.010$). CSS also favored the adjuvant therapy grouping (2.6 years versus 0.8 years; $p<0.001$). For preoperative metastasis, OS favored the systemic therapy grouping (2 years versus 0.6 years; $p<0.001$). CSS also favored the systemic therapy grouping (2.6 years versus 0.6 years; $p=0.014$). For postoperative metastasis, OS favored the systemic therapy grouping (4.2 years versus 1.2 years; $p=0.009$) as did CSS (3.8 years versus 1.3 years; $p=0.041$). Metastasis-free survival was similar (13.6 months versus 21.6 months; $p=0.225$).

Conclusion: There appears to be an OS and CSS benefit to systemic therapy for RCC-TT. Further analysis is required to elucidate the best therapy regimens and ideal timing of administration.

Funding: N/A



Podium #55

PERIOPERATIVE AND LONG-TERM OUTCOMES OF NEPHRECTOMY AND LEVEL III/IV CAVAL THROMBECTOMY FOR RENAL CELL CARCINOMA WITH OR WITHOUT CARDIOPULMONARY BYPASS

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Presented By: Alireza Ghoreifi, MD

Introduction: Radical nephrectomy with inferior vena cava (IVC) thrombectomy is a challenging procedure that necessitates meticulous hemodynamic management. Cardiopulmonary bypass (CPB) is frequently employed for managing high-level thrombi, yet its impact on surgical outcomes remains under-investigated. This study aims to evaluate the outcomes of this complex procedure with or without CPB.

Methods: In this retrospective study, we reviewed the records of patients with renal cell carcinoma and level III/IV (Mayo classification) thrombi who underwent open radical nephrectomy and IVC thrombectomy at our center between January 2000 and December 2023. Perioperative and long-term survival outcomes were compared between patients with and without CPB. Multivariable regression analyses were performed to identify associations between clinical variables and outcomes. Primary and secondary outcomes were 90-day complications and overall survival, respectively.

Results: A total of 57 patients were included, of whom 36 had level III and 22 had level IV IVC thrombi. CBP was used in 30 patients (53%), and 14 patients (25%) had preoperative angioembolization. The operative time was longer in patients undergoing CBP (466 vs. 406 min, $p < 0.001$), yet estimated blood loss was lower in this group (median 500 vs. 850 mL, $p < 0.001$) (Table 1-A). No intraoperative mortality was recorded in the entire cohort. Length of hospital stay was comparable between patients with and without CBP (median 8.5 vs 8 days, $p = 0.2$). Within 90 days post-surgery, the complications and mortality rates were 49% and 10.5%, respectively, with no significant differences observed between patients with and without CPB (Table 1-B). On multivariable analysis, CPB was not independently associated with an increased risk of complications (Odds Ratio [OR]: 1.13 (95% CI 0.38–3.4), $p = 0.83$). Within a median follow-up of 15.5 months, the overall survival rates were not statistically different between patients with and without CPB (47% vs. 22%, $p = 0.09$). On multivariable Cox regression analysis, adjusting for T stage and comorbidity index, overall survival did not differ significantly based on CPB (OR 0.87 (95% CI 0.41–1.85, $p = 0.72$).

Conclusion: Radical nephrectomy with level III/IV IVC thrombectomy is a complex procedure with a high incidence of short-term morbidity. Although CPB is associated with prolonged operative duration, it does not significantly influence perioperative complications and survival outcomes.

Funding: N/A

Table 1: Clinical features and perioperative outcomes of patients, stratified by using CBP.

Variable	All (n=57)	CPB (n=30)	No CPB (n=27)	P
(A) Preoperative features				
Age, median (IQR), year	64 (57 – 69)	64 (54 – 67)	66 (51 – 71)	0.3
Gender, n (%)				
Male	38 (67)	18 (60)	20 (74)	0.4
Female	19 (33)	12 (40)	7 (26)	
BMI, median (IQR), kg/m ²	28.5 (25.5 – 31.7)	28.5 (24.5 – 32.3)	27.8 (25.3 – 31.2)	0.53
CCI, n (%)				
0	36 (63)	22 (73)	14 (52)	0.83
≥ 1	21 (37)	8 (27)	13 (48)	
Smoker (current/former), n (%)	36 (63)	18 (60)	18 (67)	0.76
Laterality, n (%)				
Right	36 (63)	18 (60)	18 (67)	0.76
Left	21 (37)	12 (40)	9 (33)	
Tumor size, median (IQR), cm	11.5 (7.8 – 14.2)	12 (9.5 – 14)	10.6 (7.5 – 15)	0.4
Thrombus level, n (%)				
III	36 (63)	9 (30)	27 (100)	<0.001
IV	21 (37)	21 (70)	0 (0)	
Preop angioembolization, n (%)	14 (25)	8 (27)	6 (22)	0.76
(B) Intra- and post-operative outcomes				
Operative time, median (IQR), min	406 (314 – 495)	466 (380 – 516)	317 (269 – 405)	<0.001
EBL, median (IQR), mL	850 (475 – 1900)	500 (308 – 1121)	1500 (750 – 4000)	<0.001
Transfusion, median (IQR), mL	1870 (320 – 3400)	2200 (1030 – 2950)	1400 (0 – 3162)	0.2
Pathologic T stage, n (%)				
Ta	8 (14)	3 (10)	5 (18)	<0.001
Tb	23 (40)	5 (16)	18 (67)	
Tc	21 (37)	20 (67)	1 (4)	
d	5 (9)	2 (7)	3 (11)	
Pathologic N stage, n (%)				
N0/Nx	47 (83)	25 (83)	22 (82)	0.3
N1	10 (17)	5 (17)	5 (18)	
LOS, median (IQR), day	8 (7 – 12)	8.5 (7 – 13)	8 (6 – 11)	0.2
90-day complications, n (%)	28 (49)	15 (50)	13 (48)	1
Low-grade (I-III)	17 (28)	8 (27)	9 (33)	
High-grade (III-IV)	11 (20)	7 (23)	4 (15)	
90-day mortality, n (%)	6 (11)	3 (10)	3 (11)	1

CPB: cardiopulmonary bypass; IQR: Interquartile range; BMI: body mass index; CCI: Charlson comorbidity index; EBL: estimated blood loss; LOS: length of hospital stay.

* Age and current cancer are not included.

** Cell count was used in some patients. Transfusion was calculated for blood/blood products.

*** Clavien-Dindo classification.

Podium #56

RADICAL NEPHRECTOMY WITH IVC THROMBECTOMY CHARACTERISTICS AND OUTCOMES ACCORDING TO MULTIDISCIPLINARY SURGICAL TEAMS

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Presented By: Brejette Nickole Aljabi, BA, MEd

Introduction: Inferior vena cava (IVC) tumor thrombectomy (TTB) is a complex operation often requiring a surgical multidisciplinary team (MDT). However, limited literature exists comparing outcomes between specific MDTs. This study aims to evaluate and compare the characteristics, intraoperative outcomes, and postoperative outcomes of patients undergoing radical nephrectomy with level II or greater IVC TTB.

Methods: We reviewed patients undergoing radical nephrectomy with level II or greater IVC TTB between 2015-2024 at our tertiary care center. Patients were categorized by MDT involvement (MDT vs. no MDT), number of subspecialties (<3 MDT vs. ≥3 MDT), and type of MDT (vascular, liver transplant, or surgical oncology). Baseline characteristics, intraoperative data, and postoperative outcomes were recorded and compared. Categorical variables were analyzed using Chi-squared or Fisher's exact test and independent t-tests or ANOVA for continuous variables.

Results: One hundred four IVC TTB cases were identified, of which 62 had a level II or higher tumor thrombus (TT). Twenty-seven (43%) patients had a level II TT, 19 (31%) level III, and 16 (26%) level IV. Surgical MDTs were involved in 53 (85%) cases, while 9 (15%) were performed by urologic surgery only. Of surgical MDT cases, 14 (26%) involved vascular surgery, 37 (70%) involved liver transplant, and only 2 (4%) used surgical oncology. Three or more surgical specialties were involved in 17 (27%) cases. MDT involvement was associated with higher TT level, more intraoperative blood transfusions, and more postoperative complications overall ($p < 0.05$). Operations involving ≥3 MDT subspecialties were associated with higher TT level, longer operative times, more intraoperative blood transfusions, intravenous heparinization use, and more postoperative complications, Table 1. MDT surgeries, irrespective of number of teams or surgical service, were not associated with longer length of stay, ICU stay, time to return to baseline, or discharge to rehabilitation or skilled nursing facility.

Conclusion: Surgical MDTs are important in managing complex IVC TTB cases, and their involvement is notably more common with higher level TT. While MDT involvement increases operative complexity and is associated with higher complication rates, immediate postoperative outcomes were no different comparing use or specialty of MDT. These findings support use of MDTs and tailoring MDT choice to the characteristics of the case.

Funding: N/A

Table 1: Intraoperative characteristics according to no MDT vs. MDT, MDT specialty, and <3 vs. ≥3 teams

	All Patients, N = 62	No MDT, N = 9	MDT, N = 53	P value	Vascular, N = 14	Liver Transplant, N = 37	Surgery Oncology, N = 2	P value	<3 teams, N = 45	≥3 teams, N = 17	P value
Operative Time (mins, median)	325	279	312	0.197	467.5	266	456.5	<0.01	279	402	<0.01
Blood Loss (mL, median)	1600	1000	2000	0.064	2500	1500	1900	0.578	1500	2500	0.219
Number of Transfusions (median)	2	0	3	0.035	5.5	2	1	0.121	2	5	0.007
IVC Clamp Time (mins, median)	16.5	19.5	15	0.317	11	15	24.5	0.472	16.5	16	0.684
IVC Reconstruction				0.672				0.689			0.682
Caval Graft	8 (13%)	1 (11%)	7 (13%)		2 (14%)	5 (13%)	0		4 (9%)	5 (29%)	
Primary Repair	50 (81%)	8 (89%)	42 (79%)		12 (86%)	28 (76%)	2 (100%)		38 (84%)	12 (71%)	
No Repair	4 (6%)	0	4 (8%)		0	4 (11%)	0		3 (7%)	0	
Intravascular Heparinization				0.641				<0.01			0.006
No	32 (52%)	4 (44%)	28 (53%)		0	27 (73%)	1 (50%)		30 (67%)	3 (18%)	
Yes	30 (49%)	5 (56%)	25 (47%)		14 (100%)	10 (27%)	1 (50%)		15 (33%)	14 (82%)	

Podium #57

IDENTIFYING KEY MUTATIONS LINKED TO METASTASIS IN CLEAR CELL RENAL CELL CARCINOMA: A GENIE DATABASE ANALYSIS

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Presented By: Reynier David Rodriguez Rosales, BS

Introduction: Clear cell renal cell carcinoma (ccRCC) is characterized by heterogeneity in its genetic landscape, with some mutations potentially contributing to metastasis. This study aimed to identify specific genetic mutations associated with metastatic ccRCC by analyzing next-generation sequencing (NGS) data. We compared patients with metastatic disease (M1) to those without metastasis (M0) to reveal distinct genetic differences that may drive the metastatic process.

Methods: Data were obtained from the American Association for Cancer Research Project Genomics Evidence Neoplasia Information Exchange (GENIE) registry. A total of 1,529 ccRCC patients were identified, with 1,345 having complete genetic and clinical data. The cohort was divided into non-metastatic (M0; n=870) and metastatic (M1; n=475) groups. Mutation frequencies of genes with greater than 5% prevalence were compared between groups using chi-square tests, with statistical significance set at $p < 0.05$.

Results: The cohort had a median age of 65 years (IQR 53–68), with 74% male and 82% Caucasian. Of the total 808 gene panel, 15 genes were mutated by $>5\%$ in the entire cohort. PBRM1, SETD2, KDM5C, and TP53 mutations were significantly more frequent in M1 patients (see Table). VHL mutations, although highly prevalent, showed no significant difference between M1 (77.7%) and M0 (76.4%, $p=0.63$). Co-occurrence analyses revealed significant relationships between mutations in PBRM1 and SETD2, PBRM1 and VHL, SETD2 and VHL, PBRM1 and TP53, and SETD2 and TP53 ($p < 0.001$). Additionally, TP53 mutations were mutually exclusive with VHL mutations ($p < 0.001$), suggesting distinct genetic pathways in tumor development.

Conclusion: Our analysis highlights the significant role of PBRM1, SETD2, KDM5C, and TP53 mutations in metastatic ccRCC. The co-occurrence and exclusivity of certain mutations suggest complex interactions that may influence metastatic progression. These findings contribute to a deeper understanding of ccRCC genetics and may inform future therapeutic strategies targeting metastatic disease.

Funding: N/A

Gene	M1 (Metastatic) %	M0 (Non-Metastatic) %	p-value
PBRM1	49.5	42.3	0.015
SETD2	34.4	21.0	<0.001
KDM5C	19.6	10.1	<0.001
TP53	11.6	8.2	0.046

Podium #58

GERMLINE TESTING FOR RENAL CANCERS - HOW AGE AND TUMOR CHARACTERISTICS AFFECT PATHOGENIC VARIANTS

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Medical University of South Carolina

Presented By: Robert Smith, MD

Introduction: Current NCCN guidelines have many criteria for germline testing of individuals with renal tumors including family history, age, and tumor characteristics. When recommending germline testing to patient, we are often asked about the frequency of pathogenic variants, and how these variants affect care. We sought to explore how each of these guideline recommendations affect the rate of return of pathogenic variants among patients undergoing germline testing for renal cancers.

Methods: A retrospective chart review was conducted of all patients undergoing genetic testing within the urology department at a single institution. This data was maintained in a secure RedCap database. Data included age, race, cancer type, family history of cancers, tumor characteristics, and genetic test result. This data was sorted for patients with renal tumors and categorized by age less than 46, tumor cell type, tumor grade, and tumor stage. Data was then compared between these subcategories.

Results: 79 patients within our database completed germline testing for renal tumors. 18.2% of these patients tested positive for pathogenic variants. 33 patients were below age 46 with 18.2% testing positive. Pathologic variants were found in 12.8% of clear cell, 14.3% of papillary, 20% of oncocytic, and 21% of other cell types. Grade group 1 tumors had 0% pathogenic variants, 2 with 14.8%, 3 with 28.6% and 4 with 25%. For tumor stage, t1 disease had 16.7% with pathogenic variants, t2 with 0%, t3 with 18.8%, and t4 with 0%. Multifocal tumors have 22.2% pathogenic variants vs 16.4% in focal tumors. Across all groups, there were no statistically significant differences. The most common pathogenic variants were CHEK2 (3), FH (2) and VHL (2).

Conclusion: With germline genetics in urology oncology growing rapidly, data collection and analysis will help to drive changes in the guidelines. Continued data collection will aid in counseling patients in likelihood of pathogenic variants prior to testing. While we have a small initial cohort of patients, we plan to continue data collection to expand our knowledge of pathogenic variant likelihood based on character of renal mass, age, and family history. We suggest this information can help lead patient counseling and direct future guideline development for germline genetic testing.

Funding: N/A

Figure 1

Cell Type	total	positive	negative	percentage positive
Clear Cell	39	5	34	0.128
Papillary	14	2	12	0.143
Oncocytic	5	1	4	0.200
Other	14	3	11	0.214

Figure 2

Grade	total	positive	negative	percentage positive
1	3	0	3	0.000
2	27	4	23	0.148
3	14	4	10	0.286
4	4	1	3	0.250

Figure 3

Stage	total	positive	negative	percentage positive
t1	30	5	25	0.167
t2	6	0	6	0.000
t3	16	3	13	0.188
t4	6	0	6	0.000

Figure 4

	total	positive	negative	percentage positive
Focal	61	10	51	0.164
Multifocal	9	2	7	0.222

Podium #59

MYUROLOGYHEALTH: A NOVEL EPISODE-BASED PAYMENT MODEL FOR NEPHROLITHIASIS

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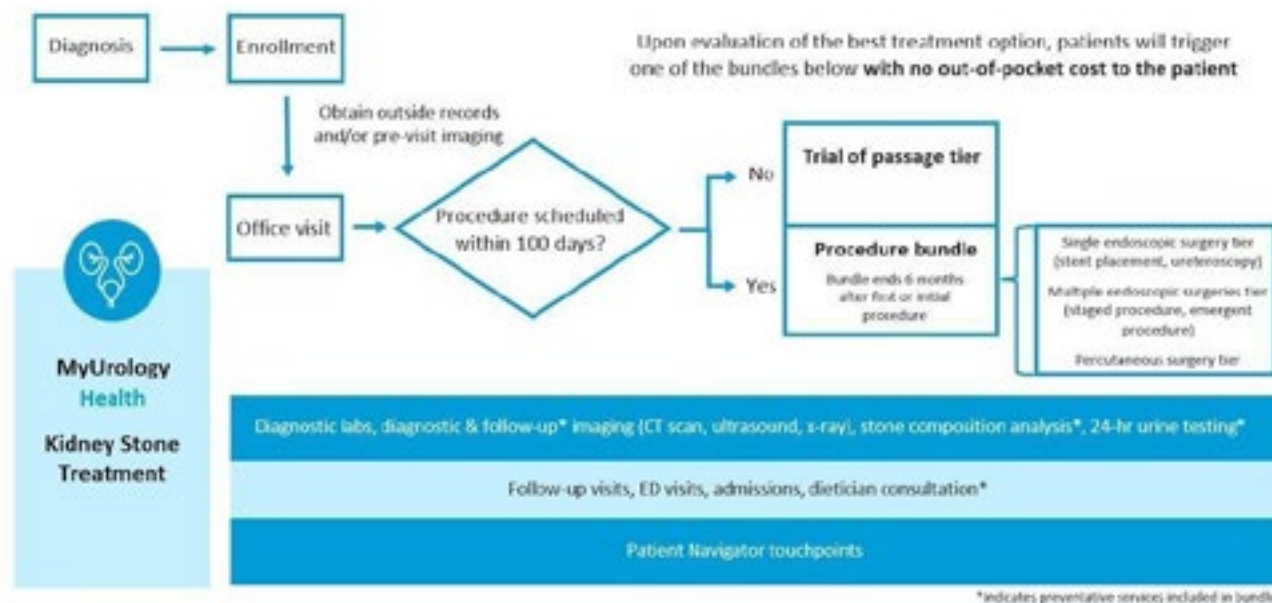
Presented By: Kate Dwyer, MD

Introduction: The “MyUrology Health” program is a direct-to-employer bundled payment system that covers all nephrolithiasis care for a single price throughout an episode of care (EOC). A goal of this program is to minimize financial burden with zero-patient facing costs for most participants, including repeat procedures and emergency room visits irrespective of volume of services utilized. The purpose of this study was to evaluate patient outcomes, satisfaction, and cancellation rates among participants enrolled in the MyUrology Health program.

Methods: Eligible patients from two self-insured employers were enrolled prospectively from 1/1/2023 to 5/3/2024 under one of four tiers (Figure 1). For those managed surgically, EOC ended 6 months after the first procedure. Those managed by trial of passage had the EOC end 100 days after enrollment. Clinic and emergency visits, imaging, and laboratory testing related to nephrolithiasis and dietician consultation were included in the EOC. We analyzed short-term clinical and quality outcomes through both chart review and analysis of quality metrics.

Results and Conclusion: Among 98 patients enrolled, we observed zero-patient facing costs for 95% of participants. There was a 4.4% cancellation rate. Of 64 patients who had a 24-hour urine ordered, 74% completed it. We observed 12% of patients required an ED visit during their bundle period. Net promoter scores completed by a representative sample of patients were 67/100 at time of check in and 93/100 at completion of the bundle program. In addition to low costs and comprehensive services, this data suggests a positive patient experience through this alternate payment model with enhanced care coordination.

Funding: N/A



Podium #60

AMERICAN UROLOGICAL ASSOCIATION ANNUAL CENSUS IDENTIFIES 39% OF PRACTICING UROLOGISTS UTILIZE UNHEALTHY COPING MECHANISMS FOR BURNOUT AND STRESS

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Presented By: Sydney Strup, BA

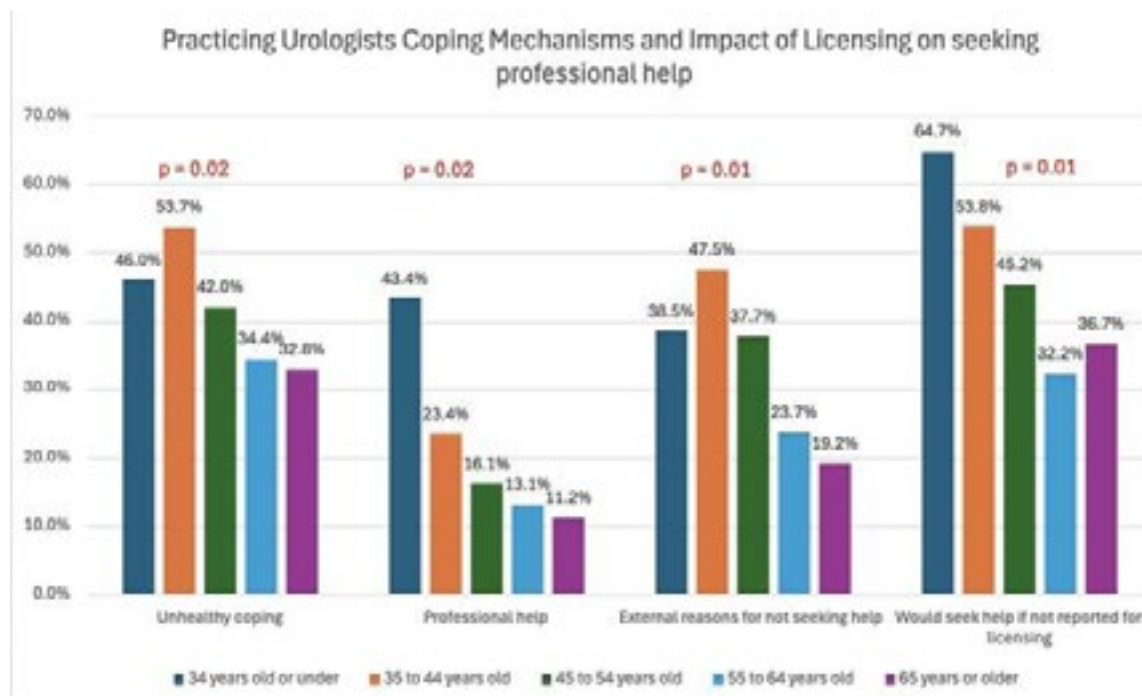
Introduction: American Urological Association (AUA) has identified ongoing urologic workforce shortage as an advocacy priority with burnout as a threat to a healthy urologic workforce. We aim to further evaluate aspects of burnout rates by examining coping mechanisms, and willingness to seek professional help using the 2023 AUA annual census.

Methods: 1,918 urologists completed the 2023 AUA Census with a 14% response rate. Post-stratification weighting was performed to adjust for non-response bias based on gender, primary practice, certification status, and years since initial certification. The survey collected demographics, practice patterns, and experiences with burnout, coping mechanisms, willingness to seek professional help, and reasons/ barriers for seeking help. Coping mechanisms were grouped as unhealthy (isolation, eating junk food, drinking alcohol, binge eating, smoking cigarettes, or using marijuana products) and healthy (exercise, talking with family/friends, sleep, meditation, and play/listen to music).

Results: Of the respondents, 70% of urologists reported experiencing burnout or stress. Of practicing urologists, 39% report using unhealthy coping mechanisms for burnout. Age was significantly associated with unhealthy coping mechanisms, with those 34-44 years having the highest percentage (54%, $p = 0.02$). Only 17% of practicing urologists have sought professional help for burnout. Younger urologists, <34 years old, were more likely to seek professional help (43%; $p = 0.02$). One-third of respondents reported external factors as a deterrent for seeking professional help with 35 to 44 year olds citing external factors as the highest rate at 48% ($p=0.01$). Finally, 43% of respondents reported they would seek help if those services were not included in the records for state licensure. Age was significantly associated with reporting they would be more likely to seek help if services were not included in their state licensure board records, with those <34 years having the highest percentage (65%, $p<0.05$).

Conclusion: Two in five urologists utilize unhealthy coping mechanisms in response to burnout or stress. Urologists have also identified state licensure boards as a factor deterring them from seeking professional help for burnout. With ongoing urologic workforce shortage, policy changes are imperative to protect the health of the current workforce.

Funding: N/a



Podium #61

PERIOPERATIVE WEARABLE HOME MONITORING ENHANCES SAME-DAY UROLOGIC SURGERY AND REDUCES UNPLANNED HEALTH CARE UTILIZATION

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Presented By: Feres Camargo Maluf

Introduction: Postoperative complications following ambulatory surgery often result in unplanned healthcare utilization, causing inconvenience to patients and increased costs to healthcare systems. Remote surveillance of patient's vital signs using wearable home monitoring technology may mitigate these issues. Thus, we aimed to assess the impact of a home monitoring program on unplanned healthcare utilization following ambulatory urologic surgery.

Methods: A prospective cohort study was conducted at a tertiary care center involving adult patients undergoing ambulatory urologic surgery. Participants were enrolled in a remote monitoring program utilizing wearable healthcare devices and a smartphone application for two days before and after the surgery. Data from the intervention cohort was compared to an age-matched non-intervention cohort. The primary outcome was unplanned healthcare utilization within 30 days postoperatively, including communications with the clinical team and unplanned hospital admissions. Secondary outcomes involved patient satisfaction with overall care and remote monitoring.

Results: The intervention cohort (N=29) and non-intervention cohort (N=29) were similar in demographic characteristics and ASA scores. Patients in the intervention group had significantly fewer unplanned communications with the clinical team (1.38 communications/patient vs. 2.52, $p=0.05$; Figure 1) and hospital admissions (0.0 visits/patient vs. 0.14, $p=0.04$; Figure 1) compared to the non-intervention group. In the intervention group, high levels of patient satisfaction were reported in both overall care and remote monitoring, with an average scoring of 4.8 out of 5 and 4.6 out of 5, respectively.

Conclusion: Postoperative remote monitoring using wearable healthcare technology significantly reduced unplanned postoperative healthcare utilization. This intervention could decrease clinical costs while improving the quality of care and patient satisfaction. Larger-scale trials are warranted to further assess the feasibility and scalability of implementing this technology in perioperative care settings.

Funding: N/A

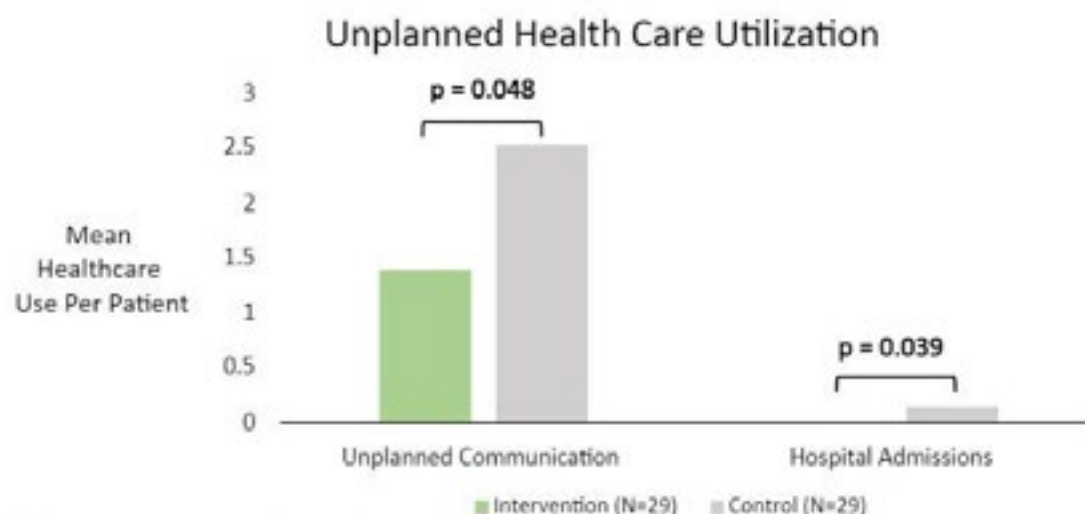


Figure 1. Comparison of unplanned communications (secure messaging and phone calls) and hospital admissions between the intervention and control groups.

Podium #62

SAME DAY DISCHARGE AFTER HOLMIUM LASER ENUCLEATION OF THE PROSTATE (HoLEP) DOES NOT INCREASE POSTOPERATIVE UNANTICIPATED HEALTHCARE UTILIZATION

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Presented By: Thomas Chi, MD, MBA

Introduction: Same day discharge (SDD) after holmium laser enucleation of the prostate (HoLEP) is increasingly performed. SDD patients have been shown to be associated with similar readmission rates and complications compared to patients who experience postoperative admission. However, prior studies have not captured all unanticipated contact with the healthcare system that drive cost and care quality, such as phone calls or unanticipated clinic visits. This study aims to evaluate whether SDD increases unanticipated healthcare utilization in the postoperative period.

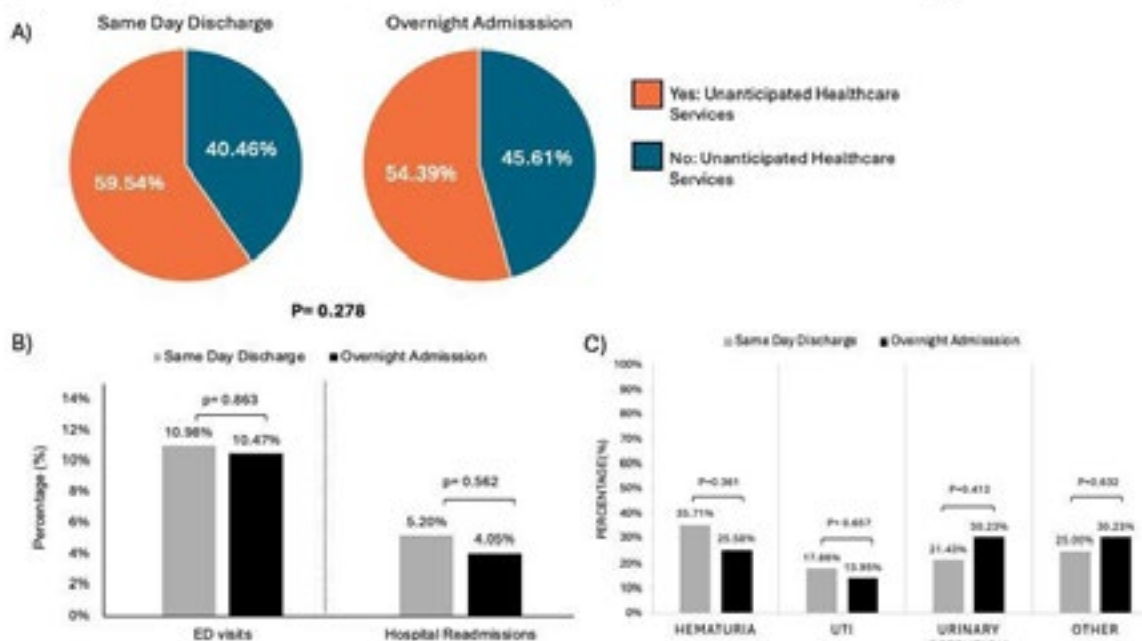
Methods: A retrospective cohort study of patients who underwent HoLEP at a single academic center between 2018-2023 was performed. Patient demographics, comorbidities, and surgical outcomes were abstracted. Inclusion criteria for same day surgery were prostate size <150g, ASA class ≤ 2, and adequate family support. Primary outcomes were unanticipated healthcare utilization, which we defined as unexpected clinic calls, clinic visits, and HER clinic messages, and ED/hospital readmission within the first 30 days after surgery. Secondary outcomes were postoperative complications. Student's t-test, chi-square analysis and multivariable logistic regression models were used for analysis.

Results: A total of 469 patients were included, out of which 37% (173) had SDD and 63% (296) were admitted for postoperative overnight hospital stay (OS). Patients in the SDD group were younger (69.9 ± 6.9 vs 72.2 ± 9.2 , $p=0.005$), had smaller prostate sizes (86 ± 44.7 vs 114.4 ± 73.6 , $p < 0.001$), and lower rates of catheter dependency 27.7% vs 42.9%, ($p = 0.001$). Unanticipated postoperative healthcare utilization was similar between OS and SDD (40.46% vs 54.39%, $p = 0.278$) (Figure 1A). There were no differences in the rates of ED or hospital readmission, and postoperative complications, including hematuria, UTI, and urinary retention (Figure 1 B&C, $p > 0.05$). On multivariable logistic regression, SDD did not predict for unanticipated healthcare use.

Conclusion: Same day discharge after HoLEP did not increase postoperative complications, readmissions, or unanticipated healthcare utilization in properly selected patients. This data supports that same day discharge HoLEP can be performed in a fashion that enhances quality and cost of care.

Funding: N/A

Figure 1. Unanticipated Healthcare Utilization and ED/ Hospital Readmission within 30 days



Podium #63

USPSTF 2017 GUIDELINE CHANGE INCORPORATING SHARE DECISION MAKING IMPROVES PSA TESTING, BUT STILL LEAVES GAPS IN CARE: DISPARITIES IN INCOME, EDUCATION, AND RACE

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Presented By: Keavash Assani, MD, MHA

Introduction: Prostate cancer is the most commonly diagnosed cancer in men and the second leading cause of cancer-related deaths. Black men are twice as likely to die from prostate cancer compared to White men. In 2017, the U.S. Preventive Services Task Force (USPSTF) revised its guidelines for PSA screening in men aged 55-69, changing the recommendation from grade D to grade C and emphasizing shared decision-making. This study investigates the effect of these guideline changes on PSA screening rates and evaluates disparities based on socioeconomic factors.

Methods: Data from the Behavioral Risk Factor Surveillance System (BRFSS) were analyzed, comparing PSA screening rates from 2016 (pre-guideline change) and 2018 (post-guideline change). Descriptive statistics were calculated, and chi-squared tests and Student's t-tests were used for categorical and continuous data, respectively. Multivariable logistic regression was conducted to assess factors associated with whether patients had undergone PSA testing, accounting for race, education, and income.

Results: A total of 54,877 men in 2016 and 66,766 men in 2018, aged 45 and older, were included. In 2018, 81.5% of those who underwent PSA testing were White, while only 7.2% were Black and 6.4% were Hispanic (p<0.001). After adjusting for socioeconomic factors, multivariable analysis revealed among those who are tested, race is not a significant predictor of whether someone has had a PSA test. (OR=1.01, 95% CI: 1.00-1.03, p=0.085). Education and income level however were inversely correlated with having a PSA test, with up to a twofold difference (p<0.001).

PSA testing increased from 50.1% in 2016 to 58.5% in 2018 (p<0.001). In 2016, patients were 24% more likely to report not being recommended for PSA testing compared to 2018 (OR=0.76, 95% CI: 0.76-0.76, p<0.001). On multivariable analysis patients in 2018 were less likely to be informed about PSA advantages (OR=4.26 in 2018 vs. OR=5.86 in 2016, p<0.001), but discussions of disadvantages increased by 5% (OR=1.05, 95% CI: 1.04-1.05, p<0.001).

Conclusion: The 2017 USPSTF guideline revision improved PSA screening rates and patient awareness of disadvantages of testing. However, disparities persist based on socioeconomic factors, particularly in education, income and race. Addressing these barriers is essential to ensure equitable access to PSA screening and informed decision-making

Funding: N/A

Table. Multivariable Logistic Regression by Race, Education, Age, Income (2016 and 2018 combined) with Outcome of Interest "Ever Had a PSA Test" Yes vs. No

Variable	OR	95% CI	p-value
Race	Black only, non-Hispanic vs. White only, non-Hispanic	1.01	(1.00, 1.03)
	Other, non-Hispanic vs. White only, non-Hispanic	0.73	(0.71, 0.75)
	Hispanic vs. White only, non-Hispanic	1.22	(1.20, 1.25)
	Education Level		
Education Level	Never attended school or only kindergarten vs. College graduate	0.31	(0.29, 0.33)
	Elementary vs. College graduate	0.68	(0.67, 0.70)
	Some high school vs. College graduate	0.55	(0.54, 0.56)
	High school graduate vs. College graduate	0.73	(0.73, 0.74)
	Some college or technical school vs. College graduate	0.88	(0.87, 0.89)
Age	55 to 64 vs. 45 to 54	2.37	(2.36, 2.38)
	65 or older vs. 45 to 54	4.52	(4.48, 4.56)
Income Level	≤ \$10,000 vs. ≥ \$75,000	0.53	(0.48, 0.58)
	≤ \$15,000 (\$10,000 to < \$15,000) vs. ≥ \$75,000	0.61	(0.57, 0.64)
	≤ \$20,000 (\$15,000 to < \$20,000) vs. ≥ \$75,000	0.68	(0.64, 0.73)
	≤ \$25,000 (\$20,000 to < \$25,000) vs. ≥ \$75,000	0.79	(0.75, 0.83)
	≤ \$35,000 (\$25,000 to < \$35,000) vs. ≥ \$75,000	0.67	(0.64, 0.70)
	≤ \$50,000 (\$35,000 to < \$50,000) vs. ≥ \$75,000	0.8	(0.77, 0.84)
	≤ \$75,000 (\$50,000 to < \$75,000) vs. ≥ \$75,000	0.93	(0.90, 0.96)
	Could Not see Doctor Because of Cost - Yes vs. No	0.99	(0.98, 1.00)

Podium #64

CLINICAL ADJUDICATION OF THE U.S. NEWS AND WORLD REPORT'S METHODOLOGY FOR IDENTIFYING POTENTIAL PREVENTABLE COMPLICATIONS FOLLOWING ELECTIVE OUTPATIENT UROLOGY PROCEDURES

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Presented By: Eric Qualkenbush, MD

Introduction: US News and World Report (USNWR) quality rankings rely almost exclusively on inpatient outcomes despite less than 5% of hospital encounters occurring in the inpatient setting. In 2023, USNWR began to include complications following elective outpatient procedures in their urology and orthopedics specialty rankings, though the clinical validity of this methodology has yet to be documented in the peer-reviewed literature by independent clinical quality experts. The objective of this study is to conduct a clinical adjudication evaluating whether the USNWR methodology accurately classifies and captures complications following elective outpatient urology procedures.

Methods: This study was a case-series chart review of a random sample of eligible urology procedures which experienced complications as defined by the 3M AM-PPC software relied upon by USNWR. We randomly selected n=80 complications from 2019-2023 across four hospitals (n=20 per hospital) in our large, integrated health system in Arizona, Florida, Minnesota, and Wisconsin. All patients with complications whose index Procedure Subgroup (PSG) code was included in the USNWR urology specialty ranking were eligible for sampling. For each complication, we assessed three criteria: 1.) Whether the procedure was performed by a urologist; 2.) Whether the adjudicator agreed with the complication type; and 3.) Whether the complication was a clinically related sequelae of the index urology procedure. We reported the severity of each complication using the Clavien-Dindo classification.

Results: The clinical adjudication agreed on complication type in 62/80 (78%) of complications, and 64/80 (80%) complications were judged to be clinically related to the index urology procedure. Combined, 57/80 (71%) complications were concordant on both complication type and clinical relatedness. However, we observed that 38/80 (48%) of identified index procedures were conducted by interventional radiologists, not urologists. Furthermore, 11/80 (13.8%) complications appeared to be false positive urinary tract infections (UTIs) in the setting of abnormal urinalysis but no other clinical signs or symptoms of infection.

Conclusion: The USNWR methodology for capturing potentially preventable complications of elective outpatient urology procedures showed reasonable clinical validity but detected a substantial amount of false positive UTIs. Further, USNWR should clarify and reconsider the extent to which procedures performed by interventional radiologists belong in a urology ranking.

Funding: N/A

Podium #65

COMPARATIVE INCIDENCE OF SEXUAL DYSFUNCTION AFTER SINGLE-LAYER VERSUS ARTERY-SPARING DOUBLE-LAYER TRANSECTING BULBAR ANASTOMOTIC URETHROPLASTY

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Presented By: William Patrick Fuell, MD

Introduction: To determine whether the risk of de-novo adverse changes in erectile function after bulbar anastomotic urethroplasty is due to the transection of the spongiosa or compromised blood supply from the bulbar artery to the distal anterior urethra. The study will compare the outcomes of one-layer versus two-layer spongiosal transecting repairs, hypothesizing that two-layer repairs, which spare the bulbar artery, will reduce the incidence of erectile dysfunction.

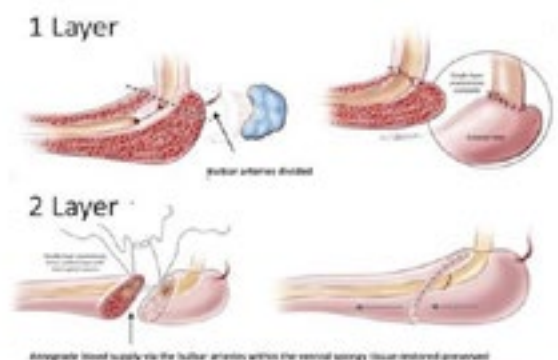
Methods: We included 207 adult patients who underwent either a 1-layer or 2-layer excision and primary anastomosis (EPA) at our tertiary reconstructive urology department from 2000 to 2023. Exclusions were patients with prior urethroplasty, pelvic fractures, or strictures extending beyond the bulbar urethra. Erectile dysfunction was assessed at 4 months and annually after that with the question: "Have you had problems with erections after surgery that were not present before?" Follow-up included cystoscopy at 4 months, voiding symptom assessment, and validated questionnaires.

Results: No significant differences were found between the groups of the urethral stricture length and age, with means of 2.2 cm and 41 years. Recurrence was one patient in each group. Postoperative results showed that the 2-layer method significantly reduced de novo erectile dysfunction (19% vs. 40%, $p=0.006$), increased satisfaction rates, and decreased ejaculatory bother scores.

Conclusion: Bulbar anastomotic urethroplasty can lead to sexual dysfunction. However, using a two-layer repair technique that preserves the bulbar arteries significantly reduces the likelihood of erectile dysfunction and related sexual complications.

Funding: N/A

Figure 1



Outcomes	Two Layers Anastomosis, N=152	One Layers Anastomosis, N=45	Total, N=207	p-value
Mean Length of Follow-Up (months), mean±SD	37.61 ± 41.39	96.67 ± 57.56	80.45±51.42 (range 4-186)	<0.001
Sexual activity, N (%)	23 (14)	16 (35.6)	39 (18.8)	0.001
Sensation Changes, N (%)	12 (7.4)	6 (13.3)	18 (8.7)	0.212
Ejaculatory Bother, N (%)	18 (11.1)	6 (13.3)	24 (11.6)	0.690
Penile Tethering, N (%)	10 (6.2)	5 (11.1)	15 (7.2)	0.258
Post Op erections problems, N (%)	31 (19.9)	18 (40)	49 (24.4)	0.006
Mean Post Op SHIM, mean±SD	17.26±8.67	14.71±8.63	16.69±8.70	0.013
Mean Post Op Ejaculatory Symptom Score, mean±SD	10.95±4.21	10.18±4.14	10.78±4.19	0.276
Mean Post Op Ejaculatory Bother Score, mean±SD	1.18±1.61	1.6±1.72	1.28±1.64	0.133
Mean Post Op IPSS Score, mean±SD	0.8±1.00	1.47±1.74	0.95 ± 1.23	0.017
Recurrence, N (%)	1 (0.7)	1 (2.2)	2 (1)	0.407
Satisfied, N (%)	152 (90)	30 (66.7)	181 (83.2)	0.05
Cold Glans, N (%)	7 (4.3)	3 (6.6)	10 (4.83)	0.516

Podium #66

OPTILUME BALLOON DILATION FOR RADIATION INDUCED POSTERIOR URETHRAL STENOSIS: A MULTI-INSTITUTIONAL EXPERIENCE

Brian Ceballos¹, Eshan Joshi², Kayla Graham³, Luke Shumaker¹, Katherine Englander⁴, Victoria Stowasser¹, J. Patrick Selph⁵, Lucas Wiegand⁴, Kevin Heinsimer⁴, Maxim McKibben³, Maia VanDyke², Steven Hudak², Allen Morey⁶, Adam Baumgarten¹

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Presented By: Brian Ceballos, MD

Introduction: Radiation induced urethral stenosis represents a complex subset of patients with higher rates of recurrence after treatment. Optilume®, a Paclitaxel drug-coated balloon, has been utilized in anterior urethral strictures with promising results. Although urethroplasty is traditionally regarded as the gold standard for treating radiation-induced posterior urethral stenoses, it can be an invasive and challenging procedure with potential side effects. Herein, we aim to evaluate the efficacy of the Optilume® drug-coated balloon as a minimally invasive treatment option for radiation-induced posterior urethral stenosis.

Methods: A retrospective, multi-institutional review was conducted on male patients who underwent Optilume® drug-coated balloon dilation from January 1, 2022, to November 1, 2023. The study involved five surgeons across four institutions. Patients were stratified based on their history of radiation-induced posterior urethral stenosis, and comparisons were made regarding demographics, characteristics of urethral stenosis, and outcomes, including surgical success and complications.

Results: Among the 56 patients with radiation-induced posterior urethral stenosis evaluated across all four institutions, 37 men had at least 90-day follow-up data. Of these 37 patients, 30 (81.1%) were deemed successful, defined as being free from repeat intervention. Although 6 patients (10.7%) experienced complications, none were greater than Clavien IIIb, with the most common complication being acute urinary retention.

Conclusion: Although radiation-induced urethral stenosis is typically associated with high rates of recurrence following conservative treatment, Optilume® drug-coated balloon represents an alternative endoscopic treatment option with encouraging short-term results.

Funding: N/A

Subject Demographics	
No. Pts	56
Age at surgery (Avg. SD)	73.37 (7.61)
Follow-up duration, days (Avg. SD)	179.4 (134.9)
BMI (Avg. SD)	29.59 (6.55)
Stricture Etiology (%)	
Radiation	56 (100%)
Prior Interventions	
Patients with prior intervention (#, %)	31 (55.4%)
Number of Endoscopic Dilations (Avg. SD)	1.25 (2.57)
Number of Urethroplasty (#, SD)	5 (8.9%)
Stricture Length (cm), (Avg. SD)	1.83 (0.98)
Stricture Location (#, %)	
Bulbomembranous	56 (100%)
Post-Op Cysto	
Cystoscopy performed	29 (51.8%)
Patent on cystoscopy	22 (75.9%)
Stricture recurrence on cystoscopy	7 (24.1%)
90 day Complications (#, %)	6 (10.7%)
Acute urinary retention (#, %)	3 (5.4%)
Clot retention (#, %)	2 (3.33%)
Incontinence (#, %)	1 (1.67%)
Optilume Success after >=3 Month Follow-Up	
No. Pts	37
Symptomatic stricture recurrence	9 (24.3%)
Freedom from re-intervention	30 (81.1%)

Podium #67

OPTILUME DRUG COATED BALLOON DILATION FOR POST URETHROPLASTY STRICTURE RECURRENCE: A MULTI- INSTITUTIONAL EXPERIENCE

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Presented By: Elizabeth Kwenda, MD

Introduction: Stricture recurrence after urethroplasty can be challenging to manage. Endoscopic intervention has been used with low success within this population. Optilume, is a paclitaxel coated balloon dilator that has demonstrated high urethral patency rates and low risk of adverse events in patients with recurrent anterior urethral strictures when compared to endoscopic intervention. The objective of this study was to evaluate the utility of Optilume for treatment of stricture recurrence after urethroplasty.

Methods: We performed a retrospective cohort study of patients who underwent paclitaxel drug coated balloon (DCB) dilation for urethral stricture recurrences after urethroplasty at two institutions between June 2022-September 2024. Baseline patient characteristics were recorded including age, stricture etiology, and prior repair. The primary outcome was freedom from any repeat intervention.

Results: Of the 146 men who underwent DCB dilation at our institutions, 19 had stricture recurrence after urethroplasty and were included in our analysis. The mean age was 55 years, (SD 18; range 34-82). Idiopathic strictures were most predominant (42%), followed by iatrogenic (21%), lichen sclerosis associated (15.7%), radiation induced (11.7%), and trauma induced (11.7%). Stricture locations were bulbar (47%), penile (32%), membranous (16%), and prostatic (5%). Prior urethroplasties were: 9 buccal mucosal graft augmentation (BMG), 7 excision and primary anastomosis (EPA), 1 scrotal skin graft, 1 prior hypospadias repair and 1 rectourethral fistula repair with EPA and gracilis flap interposition. 63% of patients underwent endoscopic intervention prior to DCB dilation. Average time from urethroplasty to DCB dilation was 43 months (SD 42). Median follow-up was 228 days (IQR 182-369). Two patients with idiopathic and iatrogenic bulbar strictures, previously treated with BMG and EPA respectively, had recurrence after Optilume and opted for repeat DCB dilation. Average time between DCB treatments was 464 days in these two patients. DCB dilation resulted in a freedom from reintervention rate of 89% in our cohort.

Conclusion: DCB dilation was effective for treatment of urethral stricture recurrence after urethroplasty at a median follow-up of 228 days in our cohort. This minimally invasive intervention may be an option for patients who are not ideal surgical candidates or refuse repeat urethroplasty. Data on longer term outcomes in this cohort is needed and is forthcoming.

Funding: N/A

Podium #68

FREQUENCY OF DELAYED INTERVENTION FOR BLEEDING IN BLUNT VERSUS PENETRATING RENAL TRAUMA

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Presented By: Kate Dwyer, MD

Introduction: Expectant management of renal trauma has become widely accepted. However, penetrating traumas have higher rates of operative intervention. We compared the likelihood of the need for delayed intervention for bleeding in blunt versus penetrating renal trauma after a conservative initial approach.

Methods: We conducted retrospective review of Grade III-V renal trauma patients at a single Level I institution between 2005-2022, including patient demographics, injury severity score (ISS), mechanism of injury, and need for intervention. Patients managed non-operatively were analyzed to compare impact of mechanism of injury on likelihood of intervention for bleeding.

Results: A total of 934 patients, 741 blunt (79.3%) and 193 penetrating (20.7%) injuries were identified with 99 (10.6%) undergoing immediate intervention for renal bleeding. There was no significant difference in AAST injury grade between groups; however, blunt trauma patients had higher ISS. Of this cohort, 8 required intervention for bleeding with delayed intervention rates of 0.44% in blunt and 3.4% in penetrating injuries. On multivariate logistic regression analysis adjusting for AAST injury grade, high-grade penetrating injuries initially managed conservatively were significantly more likely to require delayed intervention for bleeding (OR of 7.8, CI 1.88 - 38.6), although intervention rates were overall quite low.

Conclusion: Conservative management of high-grade renal injuries in patients is highly successful, regardless of injury mechanism. Adjusting for injury grade, patients with penetrating injuries are significantly more likely to require delayed intervention for bleeding and merit higher suspicion. To optimize renal salvage, conservative management should be considered for all hemodynamically stable patients regardless of injury mechanism.

Funding: N/A

	Total	Blunt Injuries	Penetrating Injuries	p-value
Patients	835	686 (82.2)	149 (17.8)	
Sex, male	590 (70.7)	462 (78.3)	128 (21.7)	<0.01
Age (median, IQR)	30 (22, 45)	31 (22, 46)	30 (22, 35)	0.04
ISS (median, IQR)	27 (18, 36)	29 (21, 38)	18 (13, 26)	<0.01
AAST Injury Grade				0.24
AAST Injury Grade 3	672 (80.5)	559 (81.5)	113 (75.8)	
AAST Injury Grade 4	102 (12.2)	78 (11.4)	24 (16.1)	
AAST Injury Grade 5	61 (7.3)	49 (7.1)	12 (8.1)	
Delayed Intervention for Bleeding	8 (0.96)	3 (0.44)	5 (3.4)	<0.01

Podium #69

OUTCOMES OF DRUG-COATED BALLOON DILATION IN PATIENTS WITH RADIATION-RELATED URETHRAL STENOSIS

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Presented By: Joel A. Masopeh

Introduction: The Optilume® drug-coated balloon is a urethral dilation balloon with a paclitaxel coating that combines mechanical dilation for immediate symptomatic relief with local drug delivery to maintain urethral patency. The ROBUST III trial concludes that Optilume is safe and superior to standard direct vision internal urethrotomy/dilation for the treatment of recurrent anterior urethral strictures <3 cm in length. However, there have been limited studies to show efficacy in the urethral stricture and bladder neck contracture in the setting of post radiation patients. This study aimed to clarify safety and early efficacy of Optilume balloon dilation for these posterior urethral strictures in post radiation patients.

Methods: All patients undergoing Optilume balloon dilation with at least 3 months of follow up were evaluated over the course of 27 months in a retrospective multi-institutional setting. 30 patients who received pelvic radiation and subsequently developed symptomatic urethral strictures were selected from a total of 147 patients identified with symptomatic urethral strictures. Success was defined as the absence of recurrence of original presenting symptoms, no need for intermittent self-dilation, and no requirement for surgical intervention within the follow-up period for their urethral stricture.

Results: 24/30 (80%) of patients had successful Optilume balloon dilations without recurrence of symptoms. At a mean follow-up of 375 (90-818) days, 80% (24/30) of radiated patients had successful Optilume balloon dilation. The mean time to recurrence was 121 days. 10% (3/30) of radiated patients had new incontinence after surgery and one patient had improved stress incontinence.

Conclusion: Optilume balloon dilation is a safe mechanism of treatment for posterior urethral stricture disease. Early follow up data of treatment of posterior urethral strictures suggestive of similar efficacy of treatment to anterior urethral dilation. However, long term follow up data is needed.

Funding: N/A

Podium #70

PEYRONIE'S DISEASE PATIENTS WITH PENILE PAIN AT BASELINE MAY BENEFIT FROM COLLAGENASE CLOSTRIDIUM HISTOLYTICUM TREATMENT: A POST HOC ANALYSIS

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Presented By: Gregory A. Broderick, MD

Introduction: Peyronie's disease (PD) is traditionally categorized into 2 phases: acute (active) and chronic (stable); however, consensus is lacking on distinctions between phases. The American Urological Association's 2015 guidelines outline acute disease as changing symptoms with the presence of pain but lack timeframe guidance. Historically, acute-phase characteristics include penile pain and worsening penile curvature, with symptom duration of acute phase being <3-18 months. The ambiguity in phases may limit PD treatment options. Collagenase clostridium histolyticum (CCH) is approved in the US for the treatment of adult men with PD with a palpable plaque and curvature deformity of at least 30°, with several published studies suggesting its safety/efficacy in acute-phase PD. We reanalyzed previous clinical trial data to investigate the potential for offering CCH treatment options at earlier timepoints in the disease process.

Methods: A post hoc analysis of pooled data from two phase 3 randomized double-blind trials of CCH in PD (IMPRESS I, NCT01221597; IMPRESS II, NCT01221623) was conducted; results were compared to the literature. CCH-treated participants were stratified by the reporting of moderate-to-severe pain or no pain at baseline. Additional subgroup analyses stratified participants by presence of pain and disease duration (12-18 or >18 months). The primary efficacy endpoint was the percentage change in penile curvature at week 52 from baseline.

Results: The IMPRESS I/II data analysis found that participants had similar penile curvature improvements by week 52 regardless of their pain level at baseline (moderate-to-severe pain vs no pain). Across all pain measures, the percentage decreases in mean penile curvature from baseline ranged from 29%-42% for moderate-to-severe pain groups and 35%-37% for no penile pain groups. There were no clear differences in mean penile curvature improvement between groups for any pain measures when stratified by disease duration of 12-18 months (moderate-to-severe pain, 32%-40% improvement; no pain, 23%-29% improvement) versus >18 months (moderate-to-severe pain, 24%-44% improvement; no pain, 37%-40% improvement). Outcomes from the IMPRESS trials were comparable to the published literature.

Conclusion: Similar to the literature evaluating CCH efficacy in the acute phase, no clear differences were identified in treatment outcomes by pain level or disease duration. Our findings suggest ongoing pain is not a contraindication to CCH therapy.

Funding: Endo USA, Inc.

Podium #71

EARLY LONGITUDINAL OUTCOMES OF BLACK MEN UNDERGOING PROSTATE-SPECIFIC ANTIGEN (PSA) SCREENING FOLLOWING IMPLEMENTATION OF A PSA-BASED RISK STRATIFICATION ALGORITHM IN A HEALTH SYSTEM-WIDE INITIATIVE

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Presented By: Mahdi Mottaghi, M.D.

Introduction: PSA test is a valuable screening tool but requires balancing the risks of overdiagnosis with detecting clinically significant prostate cancer (csPCa). The Duke Cancer Institute, in collaboration with the Primary Care network, created a PSA-based screening algorithm for patient risk stratification, considering PSA, age, and race. This study aimed to report the outcomes of PSA screening among Black men following the implementation of the algorithm.

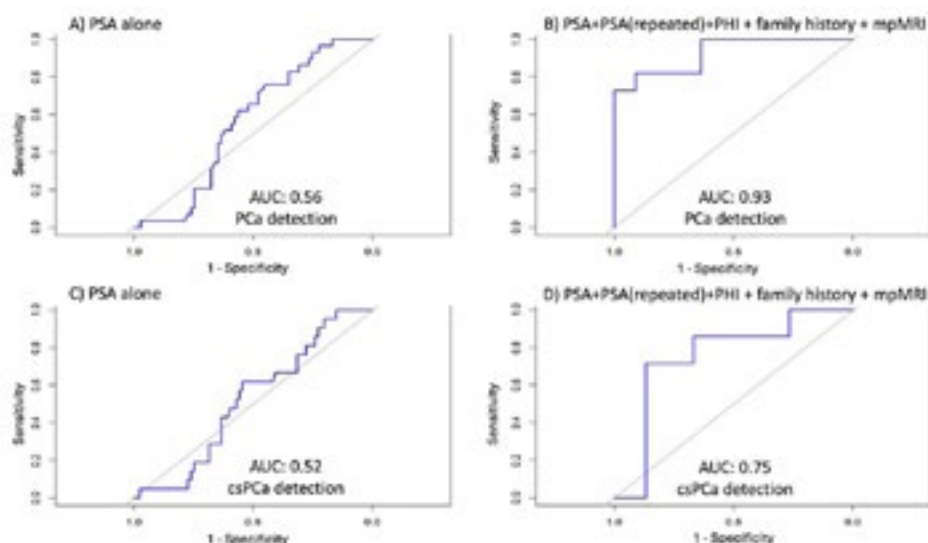
Methods: The patient cohort included Black men age 40-75 with a serum PSA measurement following the initiation of an electronic health record (EHR) screening algorithm from 02/02/2017-02/21/2018. Duke's algorithm cut-points for PSA at ages 40-49, 50-69, and 70-75 years were ≥ 1.5 , ≥ 3 , and ≥ 6.5 ng/ml, respectively. The clinical outcomes, including referral rate, biopsy, overall, and csPCa diagnosis, were evaluated through 02/2023.

Results: 480 Black men with sufficient follow-up were included. A total of 331 men (69%) were referred to urologists. The median age, PSA, and positive family history were 57 vs. 50 years ($p=0.01$), 4.1 vs. 3.0 ng/mL ($p=0.13$), and 21% vs. 9.6% ($p=0.001$) for referred vs. non-referred men, respectively. Of 331 PCP-referred Black men, 73 (22%) had mpMRI. Black men who underwent mpMRI, compared to those who did not, had comparable PSA [mean(SD): 6.4(17.5) vs. 5.7(3.2), $p=0.6$], but significantly higher chances of having a PCa family history (30% vs. 19%, $p=0.049$), a prior biopsy(s) history (18% vs. 5%, $p<0.001$), and were more likely to be diagnosed with overall (47% vs. 19%, $p<0.001$) and csPCa (30% vs. 14%, $p<0.001$). Of 122 (37%) men who underwent prostate biopsy, 83/122 (68%) returned positive for PCa, where csPCa was detected in 59/122 (48%). Compared to screening alone, the model using multiple variables (including PSA, repeat PSA exceeding cut-point criteria, prostate health index (PHI), and multiparametric MRI) had a higher diagnostic accuracy for PCa detection (AUC 0.56 vs. 0.93) and csPCa detection (AUC 0.52 vs. 0.75), respectively.

Conclusion: Implementing a system-wide, structured EHR-based PSA screening algorithm among Black men facilitated the identification of PCa across all age brackets. Additionally, using a combination of PSA, family history, PHI, and mpMRI have demonstrated efficacy in enhancing cancer detection among this under-represented population.

Figure: ROC curves of each model for overall PCa detection and csPCa.

Funding: N/A



Podium #72

OUTCOMES OF MEN WITH HIGH-RISK BIOCHEMICALLY RECURRENT PROSTATE CANCER WHO SUSPENDED ENZALUTAMIDE MONOTHERAPY TREATMENT IN THE PHASE 3 EMBARK STUDY

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Presented By: Paul R. Sieber, MD

Introduction: In EMBARK, enzalutamide + leuprolide and enzalutamide monotherapy improved metastasis-free survival (MFS) versus leuprolide alone in patients with high-risk biochemically recurrent (BCR) prostate cancer. Treatment was suspended in 304 (85.9%) patients that received enzalutamide monotherapy and 240 (67.8%) patients that received leuprolide alone. Outcomes by treatment suspension status are presented.

Methods: EMBARK (NCT02319837) is a double-blind, phase 3 study. Patients with high-risk BCR (prostate-specific antigen [PSA] doubling time [PSADT] ≤ 9 months and PSA ≥ 2 ng/mL above nadir post radiotherapy or ≥ 1 ng/mL after radical prostatectomy [RP] \pm postoperative radiotherapy) were randomized (1:1) to enzalutamide monotherapy (160 mg/day, open label) or leuprolide alone. PSA < 0.2 ng/mL at week 36 triggered treatment suspension at week 37; treatment restarted at PSA ≥ 2 or ≥ 5 ng/mL for patients with or without primary RP, respectively. Proportion of patients with undetectable PSA 2 years after treatment suspension was a secondary endpoint. MFS (by blinded independent central review) was analyzed descriptively. P-values were nominal.

Results: In the suspension group, 3-year MFS rate (95% CI) was 88.1% (83.8-91.4%) for enzalutamide monotherapy and 90.0% (85.3-93.2%) for leuprolide alone; there was no meaningful difference in MFS (HR 0.840, 95% CI 0.575-1.226; $P=0.3659$). In the no suspension group, 3-year MFS rates were 88.5% (68.5-96.2%) and 66.9% (55.4-76.1%), respectively; MFS events were limited ($n=4$) for enzalutamide monotherapy (HR 0.340, 95% CI 0.118-0.985). In the suspension versus the no suspension group, more patients received prior RP (enzalutamide monotherapy: 78.9% vs 41.9%; leuprolide alone: 78.3% vs 52.2%) or RP and radiotherapy (enzalutamide monotherapy: 50.7% vs 16.1%; leuprolide alone: 55.0% vs 38.0%); baseline median PSADT (months) was similar (enzalutamide monotherapy: 4.9 vs 5.9; leuprolide alone: 5.0 vs 4.8). Proportion (95% CI) of patients with undetectable PSA 2 years after treatment suspension was 4.6% (2.5-7.6%) for enzalutamide monotherapy and 9.6% (6.2-14.0%) for leuprolide alone ($P=0.0326$).

Conclusion: In patients with high-risk BCR who suspended treatment, there was no difference in MFS between enzalutamide monotherapy and leuprolide alone. In the no suspension group, enzalutamide monotherapy prolonged MFS versus leuprolide alone, though MFS events were limited ($n=4$). Patients with prior RP were more likely to suspend treatment. Few patients who suspended treatment had undetectable PSA after 2 years.

Funding: Pfizer Inc. and Astellas Pharma Inc., the co-developers of enzalutamide. Medical writing and editorial support, funded by the sponsors, were provided by Megan Christian, Diana Ivanoiu, and Rosie Henderson of Onyx (a division of Prime, London, UK).

Podium #73

OVERALL SURVIVAL WITH DAROLUTAMIDE VERSUS PLACEBO IN COMBINATION WITH ANDROGEN-DEPRIVATION THERAPY AND DOCETAXEL ACCOUNTING FOR SUBSEQUENT THERAPY: A SENSITIVITY ANALYSIS FROM ARASENS

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Presented By: Zachary Klaassen, MD, MSc

Introduction: Darolutamide in combination with androgen deprivation therapy (ADT) plus docetaxel is approved for metastatic hormone-sensitive prostate cancer (mHSPC) based on data from the Phase 3 ARASENS study (NCT02799602). A post hoc sensitivity analysis of overall survival was performed to address the impact of informative intercurrent events (e.g., use of subsequent therapy) in censored patients, as defined by the European Medicines Agency.

Methods: Patients with mHSPC were randomized 1:1 to darolutamide 600 mg twice daily plus ADT and docetaxel or placebo plus ADT and docetaxel. The primary endpoint was overall survival using a log-rank test, with hazard ratio (HR; 95% confidence interval [CI]) calculated by Cox model, stratified by extent of disease (nonregional lymph node vs bone ± lymph node vs visceral ± lymph node/bone metastases) and alkaline phosphatase (post hoc sensitivity analysis counted initiation of subsequent systemic antineoplastic therapy as an event in censored patients still alive at end of follow-up). In addition, planned sensitivity analyses used an unstratified log-rank test/Cox model, a log-rank test/Cox model with stratification factors from electronic case report forms, and a log-rank test/Cox model with extent of disease stratification factors from central imaging review.

Results: In the primary analysis, darolutamide plus ADT and docetaxel showed significantly improved overall survival ($P < 0.0001$; Table) versus placebo plus ADT and docetaxel, despite 374/495 (76%) patients in the placebo group receiving subsequent life-prolonging systemic therapies. Time to first subsequent systemic antineoplastic therapy was significantly longer with darolutamide plus ADT and docetaxel versus placebo plus ADT and docetaxel ($P < 0.001$). Findings from the post hoc sensitivity and the planned sensitivity analyses were consistent with and supported the primary overall survival analysis (Table). Treatment-emergent adverse events were similar between groups and led to darolutamide/placebo discontinuation in 13.5%/10.6% of patients, respectively.

Conclusion: These post hoc and planned sensitivity analyses were consistent with and supportive of the ARASENS primary overall survival analysis. These data reinforce darolutamide in combination with ADT and docetaxel as an effective and well-tolerated standard of care for early treatment intensification in mHSPC.

Funding: Bayer HealthCare Pharmaceuticals

Table 1: ARASENS overall sensitivity analyses

Analysis	HR (95% CI) darolutamide versus placebo
Primary overall survival analysis	0.68 (0.57–0.80)
Sensitivity analyses	
Counting initiation of subsequent systemic antineoplastic therapy as an event in censored patients	0.47 (0.40–0.54)
Unstratified	0.69 (0.58–0.82)
Using stratification factors based on eCRF	0.68 (0.57–0.81)
Using EoD stratification factors from central imaging review	0.68 (0.57–0.81)

CI, confidence interval; eCRF, electronic case report form; EoD, extent of disease; HR, hazard ratio.

Podium #74

PROSTATE-SPECIFIC ANTIGEN DYNAMICS FROM THE PHASE 3 EMBARK TRIAL: A POST HOC ANALYSIS

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Presented By: Paul R. Sieber, MD

Introduction: EMBARK (NCT02319837), a phase 3 study, demonstrated that enzalutamide + leuprolide (enzalutamide combination) and enzalutamide monotherapy significantly improved metastasis-free survival versus placebo + leuprolide (leuprolide alone) in high-risk biochemically recurrent (BCR) prostate cancer patients. EMBARK included a treatment suspension at week 37 if prostate-specific antigen (PSA) was <0.2 ng/mL and re-initiation at pre-defined PSA thresholds. This post hoc analysis of PSA dynamics in EMBARK aimed to understand the time course to undetectable PSA and likelihood of undetectable PSA after treatment reinitiation.

Methods: EMBARK enrolled high-risk BCR patients, post definitive therapy. High-risk was defined as PSA doubling time ≤9 months and PSA ≥2 ng/mL above nadir post radiotherapy or ≥1 ng/mL post radical prostatectomy (RP) ± postoperative radiotherapy. Patients were randomized (1:1:1) to receive enzalutamide combination 160 mg/day (double blind), leuprolide alone (double blind), or enzalutamide monotherapy (open label). Leuprolide 22.5 mg was administered every 12 weeks. If serum PSA was <0.2 ng/mL at week 36, treatment was suspended at week 37 and restarted when PSA was ≥2 ng/mL for RP patients and ≥5 ng/mL for non-RP patients. A post hoc analysis of PSA dynamics was conducted in each treatment cohort.

Results: Of 1068 eligible patients, most in all three treatment groups reached undetectable PSA (<0.2 ng/mL) by week 25 (Table); percentages were higher for enzalutamide combination and monotherapy versus leuprolide alone. More patients had treatment suspended with enzalutamide combination and monotherapy versus leuprolide alone. Of patients who suspended treatment at week 37, 89% reinitiated treatment with enzalutamide monotherapy, 85% with leuprolide alone, and 75% with enzalutamide combination. Of patients who reinitiated treatment, ~90% or more treated with enzalutamide combination or monotherapy reached undetectable PSA again versus 73% with leuprolide alone.

Conclusion: In patients with high-risk BCR, a greater proportion treated with enzalutamide combination or enzalutamide monotherapy reached undetectable PSA, reached undetectable PSA sooner, had treatment suspended at week 37, and achieved undetectable PSA following treatment reinitiation versus leuprolide alone.

Funding: The study was sponsored by Pfizer Inc. and Astellas Pharma Inc., the co-developers of enzalutamide. This abstract was originally presented at the American Urological Association Annual Meeting, 2024. Pfizer's generative artificial intelligence (AI) assisted technology, MAIA (Medical Artificial Intelligence Assistant), was used in the production of this encore to adapt the original abstract. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication. Additional editorial support, funded by the sponsors, was provided by Neil Venn, PhD, and Rosie Henderson, MSc, of Onyx (a division of Prime, London, UK). ©2024 American Urological Association Education and Research, Inc. Reused with permission.

n (%)	Enzalutamide combination (n=355)	Leuprolide alone (n=358)	Enzalutamide monotherapy (n=355)
First occurrence of PSA <0.2 ng/mL			
Week 25	317 (89.3)	224 (62.6)	291 (82.0)
Week 36	9 (2.5)	22 (6.1)	13 (3.7)
Week 37 [†]	20 (5.6)	36 (10.1)	23 (6.5)
Treatment suspension [‡]	321 (91.0)	240 (67.4)	304 (85.7)
Treatment suspension ongoing at data cutoff	34 (10.6)	14 (5.8)	13 (4.3)
Reinitiation of treatment [§]	241 (75.1)	203 (84.6)	270 (88.8)
PSA <0.2 ng/mL, after treatment reinitiation	231 (95.9)	149 (73.4)	242 (89.6)
PSA ≥0.2 ng/mL, after treatment reinitiation	10 (4.1)	54 (26.6)	28 (10.4)

Data cutoff: January 31, 2023.

[†]Patients who did not suspend treatment.

[‡]Percentages calculated based on the number of patients with PSA values at week 36; patients who discontinued following treatment suspension are not included.

[§]Percentages calculated based on the number of patients who suspended treatment.

^{||}Undetectable PSA <0.2 ng/mL, reached at any time after treatment reinitiation.

^{||}Undetectable PSA <0.2 ng/mL, not reached at any time after treatment reinitiation.

Podium #75

PHASE 1 TRIAL OF MEVROMETOSTAT (PF-06821497), A POTENT AND SELECTIVE INHIBITOR OF ENHANCER OF ZESTE HOMOLOG 2 (EZH2), IN CASTRATION-RESISTANT PROSTATE CANCER (CRPC)

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Presented By: Benjamin Garnezy, MD

Introduction: Mevrometostat (PF-06821497) is a potent and selective small molecule inhibitor of EZH2. Dose exploration of mevrometostat with enzalutamide plus androgen deprivation therapy showed a manageable safety profile and evidence of objective response (OR), decline in prostate-specific antigen of $\geq 50\%$ from baseline (PSA50), and pharmacodynamic (PD) modulation in patients with CRPC in part 2A of a phase 1 study (NCT03460977). We report longer term follow-up from the dose-escalation cohort.

Methods: This open-label, phase 1 study evaluated mevrometostat (orally, 150-1250 mg BID) plus enzalutamide (160 mg QD) in adults with CRPC who had evidence of cancer progression per Prostate Cancer Working Group 3 and received prior abiraterone and/or enzalutamide. Primary endpoint was safety. Pharmacokinetics, radiographic progression-free survival (rPFS), PSA50, and OR were also assessed. Dose/response relationship of mevrometostat on-target H3K27Me3 PD modulation and circulating tumor DNA mutational profiling were exploratory endpoints.

Results: As of November 2, 2023, 47 patients received ≥ 1 dose of study treatment. Median (IQR) follow up was 9.7 (2.0–22.8) months. Median (range) age was 70 (53–87) years. Overall, 57.4% of patients received prior abiraterone, 74.5% received prior enzalutamide, and 48.9% received prior taxane therapy. At data cut-off, 18 events were observed (14 progressions and 4 deaths). Median (95% CI) rPFS was 17.0 (6.3, not estimable [NE]) months in all patients (n=47); 17.1 (6.2, NE) months for patients with prior abiraterone (without enzalutamide; n=12), and 11.7 (4.2, NE) months for patients with prior enzalutamide (\pm abiraterone; n=35). Confirmed PSA50 (95% CI) was observed in 14.9% (7.0, 31.4) of patients. In 22 patients with baseline measurable disease, OR rate (95% CI) was 27.3% (10.7, 50.2; 1 complete response, 5 partial responses). Geometric mean (95% CI) H3K27Me3 reduction was -75% (-93 , -11) for mevrometostat plus enzalutamide (at mevrometostat 1250 mg BID) in tumor-paired biopsies (n=6). Durable antitumor activity was observed in both post-abiraterone (without enzalutamide) and post-enzalutamide (\pm abiraterone) patients with and without androgen receptor and/or TP53 mutations. Safety is reported in the Table.

Conclusion: Mevrometostat plus enzalutamide shows activity in both post-abiraterone without enzalutamide and post-enzalutamide (\pm abiraterone) patients with CRPC, with evidence of tumor PD modulation and a manageable safety profile. Further investigation is warranted.

Funding: This study was sponsored by Pfizer Inc. Enzalutamide for the study was provided by Astellas Pharma Inc. Acknowledgments: The authors thank all patients, their families, and investigators and investigational site members involved in this study. Medical writing and editorial support were provided by Megan Christian, MBiolSci, and Rosie Henderson, MSc, of Onyx (a division of Prime, London, UK), funded by Pfizer, Inc.

Table. Summary of AEs

n (%)	All patients (N=47)
AEs leading to treatment discontinuation	9 (19.1)
Most common TEAEs related to mevrometostat	
Diarrhea	20 (42.6)
Dysgeusia	20 (42.6)
Anemia	17 (36.2)
Grade ≥ 3 TEAEs related to mevrometostat	8 (17.0)
Serious TEAEs related to mevrometostat	3 (6.4)
Treatment-related deaths	0 (0)

AE, adverse event; TEAE, treatment-emergent AE.

Podium #76

VALIDATION OF PAM50 FOR PREDICTING PROGRESSION IN ACTIVE SURVEILLANCE: RESULTS FROM THE MIAMI MAST PROSPECTIVE CLINICAL TRIAL

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Presented By: Jamie Thomas, DO

Introduction: Active surveillance (AS) is now a prevalent approach for managing men with low to favorable intermediate-risk prostate cancer (PCa). While PCa-related mortality and metastasis are generally low in this group, some patients may experience progression that requires intervention. Enhancing tools for predicting cancer progression could facilitate more personalized and timely treatment decisions. In this study, we evaluated the PAM50 molecular classification profile to improve the prediction of cancer progression in men undergoing AS for PCa.

Methods: A total of 205 patients enrolled in the Miami MAST trial and underwent a rigorous follow-up protocol involving serial multiparametric MRI and biopsies, including both MRI-targeted and systematic biopsies. The highest-grade and volume core from each targeted and systematic biopsy were sent to Veracyte™ for genomic profiling. Patients were categorized into three groups based on the PAM50 genomic classifier available on the Decipher GRID. Time to progression, mutation analysis, and other prognostic signatures and pathways available on the Decipher GRID were compared across the three PAM50 classifier groups. Statistical analysis was performed using ANOVA and the rank-sum test, with significance defined as $p < 0.05$.

Results: Among the 205 patients enrolled in the trial, 128 men had successful genomic profiling available at baseline for PAM50 classification. Among these men, 46 were found to have Luminal A, 26 as Luminal B, and 56 as Basal subtypes. The Luminal B subtype demonstrated the highest risk of progression (77%), while the Basal subtype showed the lowest risk (45%). Decipher scores were lowest in the Luminal A group, followed by the Basal group, and highest in the Luminal B group. Intra-patient variability based on subtyping of different cores within the same biopsy was observed in 37.1% of cases. Transcriptome analysis revealed distinct enrichment profiles for each PAM50 subtype, and mutation pattern analysis highlighted differences in mutation associations, with the Luminal B subtype showing a stronger association with SPOP and PTEN mutations.

Conclusion: PAM50 shows promise as a molecular classification tool for predicting the risk of progression in prostate cancer. To our knowledge, this is the first study to validate PAM50 for predicting cancer progression in a prospective cohort of men undergoing active surveillance for prostate cancer.

Funding: Supported by the National Cancer Institute of the National Institutes of Health under Award Number P30CA240139 (SCCC); U01CA239141, U01CA27140 and 1R01CA272766 (SP, RS, AP, SMG). SP is also funded in part through Paps Corps Champions for Cancer Research Endowed Chair in Solid Tumor Research.

Podium #77

HYDROXYCHLOROQUINE INCREASES TUMOR SUPPRESSOR PAR-4 LEVELS IN PATIENTS WITH OLIGOMETASTATIC PROSTATE CANCER: RESULTS FROM A PHASE-2 TRIAL

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University of Kentucky

Presented By: Joon Kyung Kim, MD

Introduction: In oligometastatic prostate cancer (OMPC), delaying time to initiation of androgen deprivation therapy (ADT) may have oncologic and quality of life benefits. Additionally, there is an emerging role for metastatic/primary tumor site-directed therapy for patients with OMPC. Prostate apoptosis response-4 (PAR-4) is a potent tumor suppressor, facilitating apoptosis in prostate cancer cells. Hydroxychloroquine (HCQ) has been identified to be a potent inducer of PAR-4 secretion and downstream tumor inhibition in preclinical models and phase I trials. We present a single institution Phase II trial assessing induction of PAR-4 levels in the plasma of patients in response to HCQ administration in combination with radiation therapy (RT) for OMPC.

Methods: Men with OMPC (≤ 5 synchronous metastatic lesions) following primary tumor treatment were eligible. Patients received 400 mg HCQ daily for 2 weeks prior to metastatic site-directed RT and 400 mg HCQ daily for 90 days post-radiation. Plasma samples were collected on Day 0, 14, 30, 60, and 90 and subjected to western blot analysis for PAR-4. The primary endpoint was induction of $\geq 50\%$ serum PAR-4 expression above baseline level within 90 days of treatment initiation. We hypothesized that over half of patients would exhibit $\geq 50\%$ induction of PAR-4 expression.

Results: Nineteen participants met inclusion criteria and were treated with 90 days of HCQ and RT to oligometastatic lesions. Median age was 68 years (range 55-77), majority of patients were Caucasian (94%) and median baseline PSA was 6.30 ng/ml (range 0.99-27.80). Prior primary tumor treatment included RT (26%), radical prostatectomy (32%), and radical prostatectomy with radiation (42%). Eleven patients (58%) showed $\geq 50\%$ increase in PAR-4 above baseline levels ($p=0.0006$). This was associated with a concomitant PSA decline at 6-months (mean -0.98 ng/ml, 95% CI -6.61 to 4.65) and 12-months (mean -7.21 ng/ml, 95% CI -12.45 to -1.97). Median progression-free survival was 9.3 months (95% CI 6.4 to N/A). Twelve patients (63%) reported at least one adverse event.

Conclusion: Oral administration of HCQ is well tolerated and effectively induces plasma expression of potent tumor suppressor PAR-4 in patients with OMPC. Given the promising findings, further investigation into possible radiosensitizing and anti-tumor benefits of HCQ in a larger cohort of OMPC is necessary.

Funding: N/A

Podium #78

EVALUATING THE PATIENT EXPERIENCE IN A CLINICAL TRIAL FOR AUTOLOGOUS MUSCLE DERIVED CELLS TO TREAT FEMALE STRESS URINARY INCONTINENCE

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Presented By: Karla Rebullar, MD

Introduction: Stress urinary incontinence (SUI) is a prevalent condition affecting >25% of women in the United States. Although options exist for its management, there remains a need for effective and durable treatment with minimal morbidity.

Regenerative medicine is at the frontier of SUI treatment. Clinical trials involve stem cell injection into the urethral sphincter with the goal of restoring continence.

The randomized clinical trial NCT01893138 evaluating autologous muscle derived cells for urinary sphincter repair (AMDC-USR) for treatment of female SUI showed safety and possible treatment efficacy.

Here, we aim to understand patient motivation to participate in SUI clinical trials and assess factors contributing to satisfaction. Information gained may identify areas of improvement for future recruitment and the process for novel treatments.

Methods: Patients who participated in the trial at our institution were invited to fill out a questionnaire addressing the study's objectives. The survey link was e-mailed via REDCap and non-responders were called for an option to complete the survey via phone. Descriptive statistics was used to analyze responses.

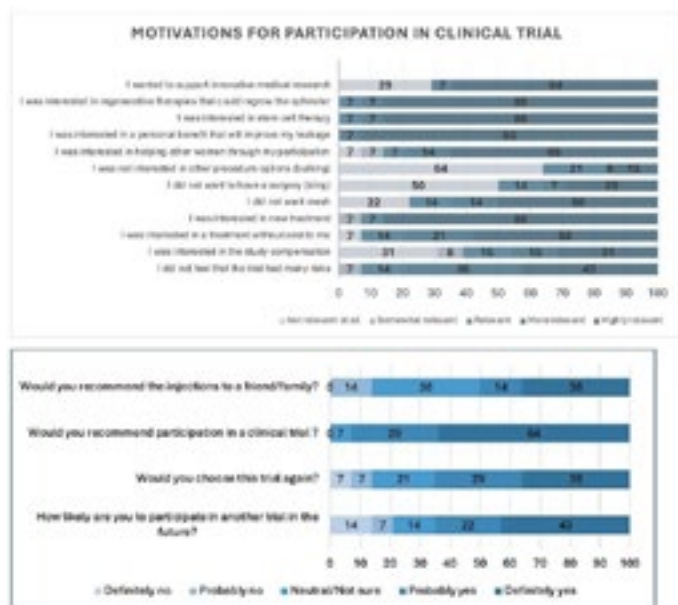
Results: 14 of 17 eligible participants completed the survey. Mean age was 64. Majority were white (93%), divorced (50%), and employed (77%) from Southeast USA (79%).

Participants were asked to rate 12 statements in terms of relevance to their desire to participate in the trial (Figure 1). All participants rated their interest in regenerative and stem cell therapies "relevant" to "highly relevant". Although majority of the participants said that avoiding bulking procedures (64%) and slings (50%) were not relevant at all, half the participants said that avoiding mesh was highly relevant.

Half the participants would recommend the injections, and majority would recommend participating in a clinical trial (93%), participate in this trial again (65%), and would likely participate in another SUI trial in the future (65%) (Figure 1).

Conclusion: The most relevant factors in participants' motivations are their interests in improving their incontinence, regenerative medicine, stem cells, and treatment that is without cost and with minimal risks. Overall, respondents rated their experience positively. Majority reported that they would likely participate in a trial again. Future directions include collaborating with other sites to increase sample size, and conducting interviews for thematic analyses.

Funding: N/A



Podium #79

STRESS URINARY INCONTINENCE TREATMENT WITH BULKAMID®: OUTCOMES FROM AN ACADEMIC TRAINING INSTITUTION

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Presented By: Max David Sandler, BS

Introduction: Stress urinary incontinence (SUI) affects up to 50% of women with incontinence. Bulking agents, such as Bulkamid®, are a minimally invasive treatment option to improve urethral sphincter closure. While Bulkamid® has improved or comparable efficacy to other agents, successful treatment requires experience and precise technique, and it can be technically challenging for trainees. In this study, we examined Bulkamid® outcomes to determine real-world success rates and longevity of SUI resolution, while secondarily assessing trainee versus faculty injection results.

Methods: We retrospectively reviewed charts of women aged ≥18 years old with SUI who received Bulkamid® between January 2020 and June 2024 at a large university hospital. We defined failure as the persistence or recurrence of SUI at any point after Bulkamid® injection. Patients lost to follow-up (LTFU) were presumed to have had no recurrence of symptoms. For those who followed up, we reviewed subsequent encounters for symptom recurrence and management. Trainees, if present in the case, performed 50-100% of the procedure. Descriptive statistics were used for analysis.

Results: We examined 185 Bulkamid® procedures. The majority (n=169) were performed in the operating room (OR) versus 16 in attending clinics. Residents performed 123 procedures, compared to 62 by attendings alone. Overall success rate was 65.4% (n=121). Of 64 failures, symptoms recurred at a median of 61.5 days (IQR 37, 92) as seen in **Figure 1**. Failures were managed with repeat Bulkamid® (n=21), sling placement (n=14), or no further treatment (n=29). Seventy-five patients followed up and reported no SUI recurrence during the study duration, while 46 patients were LTFU. Failure rate was 33.3% for procedures completed by residents, compared to 37.1% for attendings.

Conclusion: Bulkamid® demonstrates durable success in a real-world setting and outcomes are relatively consistent with reported efficacy. Success rates are similar whether the procedure is performed by trainees or experienced providers. Failures tend to occur quickly, highlighting the need for timely follow up. Future work could focus on longer-term or multi-institutional studies to evaluate predictors of success and failure.

Funding: N/A

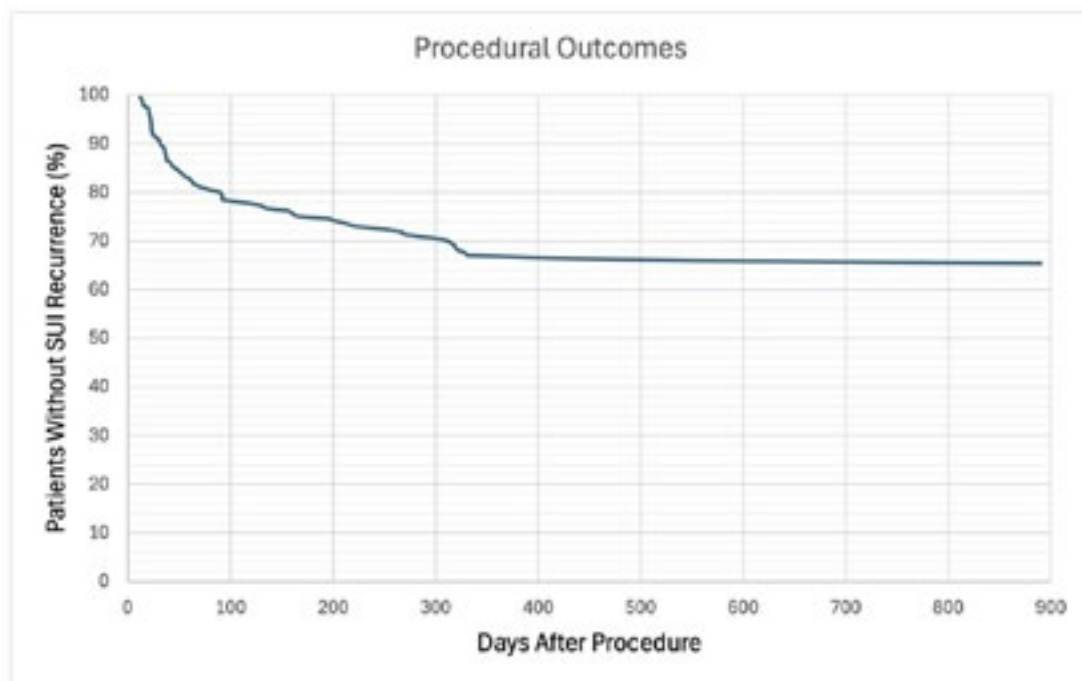


Figure 1. Curve depicting time to symptom recurrence and the proportion of patients who remain symptom-free over time; the intersection with the curve at a given time point represents the percentage of patients still successful at that duration.

Podium #80

PELVIC HEALTH LITERACY IN PATIENTS IN AN OUTPATIENT UROGYNECOLOGY SETTING

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Presented By: Katherine Sonja Bobrek

Introduction: Health literacy (HL) is a growing topic of research with lower HL associated with poorer health outcomes. Female pelvic health literacy, however, remains vastly understudied, despite the widespread prevalence of pelvic floor disorders. To provide insight into this underrepresented area of HL research, this study created the first survey both evaluating and synthesizing patients' overall HL, knowledge of pelvic floor anatomy and common urogynecologic conditions, and symptom burden.

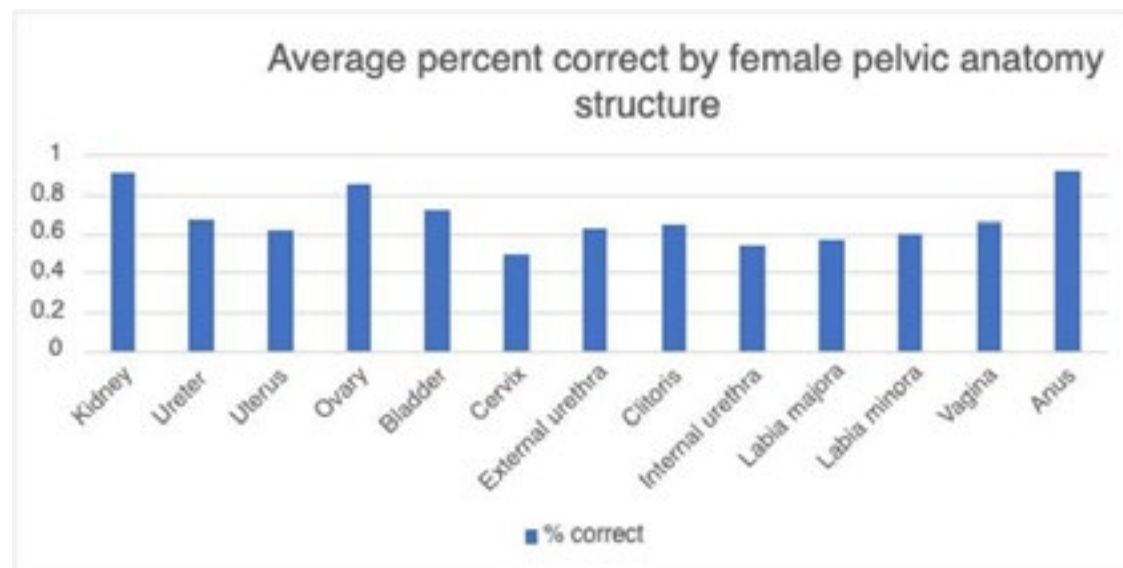
Methods: Sixty-seven patients with a urogynecologic disorder were consented and completed the primary study intervention, a one-time, 20-question survey. This survey included questions regarding overall HL, education level, and symptom burden. Participants were also asked to identify female pelvic anatomy on diagrams of external and internal female genitalia. One additional, open-ended question asked participants to explain their urogynecologic disorder in their own words.

Descriptive analysis was conducted using Excel. Multivariate analyses were conducted using SPSS.

Results: The cohort's average age was 65 with an average HL score of 18 (maximum possible score of 20). Urinary incontinence was the most common urogynecologic disorder (55%), followed by prolapse of any kind (28%). 35% of patients had more than one urogynecologic disorder. Average percent correct on the anatomy questions overall was 68%. The cervix and urethra (as depicted on external, not internal, genitalia chart) had the lowest average percent correct, 49% and 54% correct respectively. Education level was significantly associated with a change in HL score ($p=0.004$). Bonferroni post-hoc analysis revealed patients who completed high school or below were found to have a statistically significant decrease in HL compared to those with above a high school education. Age was weakly negatively associated with percent correct on the anatomy portion ($p=0.007$) and positively associated with symptom burden ($p=0.05$). HL score was weakly positively associated with percent correct on the anatomy portion ($p=0.008$). Amongst responses to the open-ended question, 22% of patients were unable to name their condition, its cause and/or treatment options.

Conclusion: This cohort with relatively high overall HL showed a broad range of female pelvic health literacy, determined by survey results illustrating anatomy and urogynecologic disorder knowledge. Factors such as age, education level, and HL may impact understanding of female pelvic anatomy.

Funding: N/A



Podium #81

TRENDS OF FLUOROQUINOLONE USE FOR UNCOMPLICATED URINARY TRACT INFECTIONS BY UROLOGISTS - A STATEWIDE INSTITUTIONAL EXPERIENCE

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Presented By: Erin Mayeux

Introduction: Despite several FDA warnings and increasing bacterial resistance, fluoroquinolone (FQ) use for uncomplicated infections (UTIs) continues to be significant. We aim to evaluate trends in FQ use for uncomplicated UTIs by urologists in a single state.

Methods: This is an IRB-approved query of the EPIC electronic health record across Ochsner, Louisiana's largest statewide hospital system. Louisiana was split into 5 regions based on outpatient clinic locations: North Louisiana, Central Louisiana, Northshore, Greater New Orleans, and South Louisiana. Women ≥ 18 years of age who received outpatient FQ prescriptions for UTIs from 2012-2022 were included. The recommended treatment for acute uncomplicated cystitis is 250 mg daily (levofloxacin) and 250 mg every 12 hours (ciprofloxacin) for 3 days. The duration of treatment for mild/moderate cystitis is 7 to 14 days.

Results: During the study period, there were 44,601 outpatient FQ prescriptions for UTIs in women >18 years, with urologists accounting for 2,610 (5.8%). There were 7% and 22% increases in the number of FQ prescriptions written in 2014 and 2019 after the 2013 and 2018 FDA warnings, respectively. Conversely, there were 30% and 5% decreases in 2017 and 2018 after the 2016 and 2017 FDA warnings, respectively. Using the 2020 census data, the majority of FQ prescriptions (69%) were written by urologists within the Greater New Orleans area, despite only 17% of the state's population residing within this region. The majority of patients (63% to 84%) received 14-21 doses per antibiotic course with 85% to 99% receiving the 500 mg calculated dose.

Conclusion: While urologists represent $<6\%$ of all prescribers in Louisiana, their use of FQs for management of uncomplicated UTIs is still common, with 2022 levels approaching the peak seen in 2015. While doses and duration of treatment vary widely, most patients receive higher doses and longer courses of treatment than recommended. It is currently unclear if the FDA warnings have contributed to improvement in FQ stewardship.

Funding: N/A

Podium #82

SURVEY OF PATIENTS WITH OVERACTIVE BLADDER USING GLP-1 AGONISTS

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Presented By: Max David Sandler, BS

Introduction: Overactive bladder (OAB) significantly impacts quality of life and leads to psychological distress. Conservative treatment includes lifestyle changes, with weight loss demonstrating reduced OAB severity, especially among obese patients. Using an anonymous survey, we aimed to explore the subjective impact of Glucagon-Like Peptide-1 (GLP-1) agonists, commonly used for weight loss and diabetes management, on patients with OAB.

Methods: We created and distributed a survey via Reddit, a popular online forum. Participants were eligible if they were 18 or older, had taken a GLP-1 agonist, and experienced OAB symptoms. The survey collected data on participants' OAB symptoms and body weight before and after starting GLP-1 treatment, reasons for using these medications, and demographic information. Data analysis was performed using SAS® software, with significance set at $p < 0.05$.

Results: Of 33 respondents, 27 identified as female and 6 male. All used semaglutide, primarily for weight loss (96.9%). Four had a urinary condition besides OAB. Eleven (33.3%) reported OAB symptom improvement after starting GLP-1 agonists with mean weight loss of 12.2%, but this was not significantly different from those with no change or worsening OAB symptoms (8.4% and 10% mean weight loss, respectively, $p = 0.24$). Half (50%) of those with OAB episodes at least once daily experienced symptom improvement, compared to 7.7% with less frequent symptoms ($p = 0.01$). Of all participants reporting symptom improvement, 90.91% experienced OAB at least once daily, as seen in Figure 1 ($p = 0.01$).

Conclusion: While weight loss can improve OAB symptoms, the impact of weight loss due to GLP-1 agonists is not known. Our findings may suggest that those experiencing more frequent symptoms of OAB could see greater improvement from GLP-1 agonists than those with less frequent symptoms. Further studies are needed to continue exploring how these medications impact OAB, enabling providers to more effectively manage these patients and improve clinical decision making.

Funding: N/A

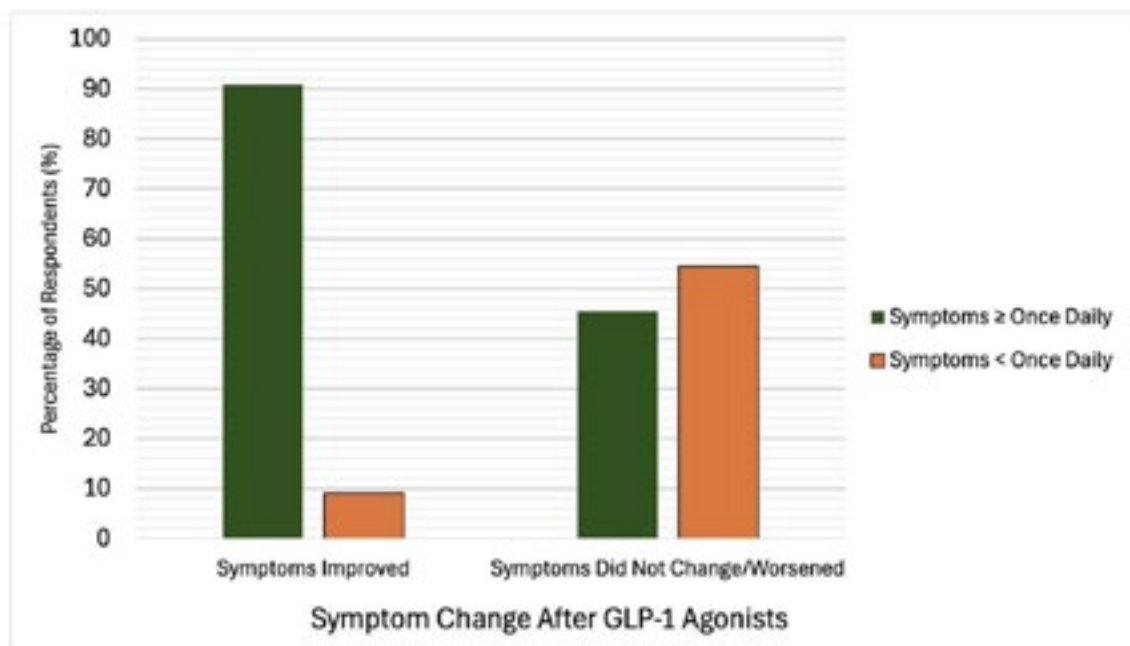


Figure 1. Subjective symptom severity changes after starting GLP-1 agonists based on pre-treatment OAB symptom frequency.

Podium #83

LOOP URETHROSTOMY TECHNIQUE FOR URETHRAL STENOSIS FOLLOWING GENDER-AFFIRMING VAGINOPLASTY

Aleksander Druck, Ross Everett

University of South Florida

Presented By: Aleksander Druck, MD

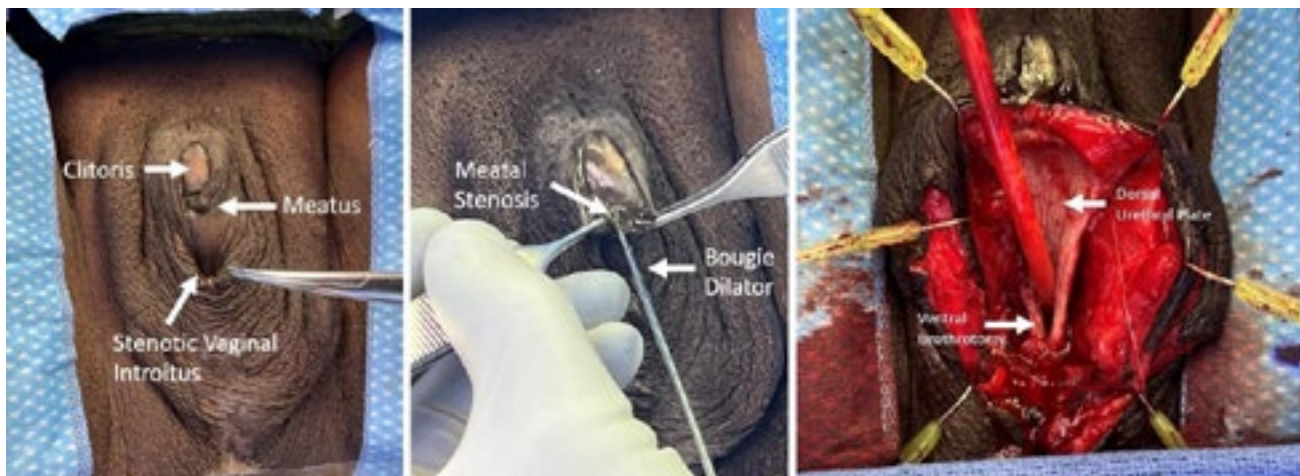
Introduction: Urethral stenosis is a common complication after gender-affirming vaginoplasty with reported rates of up to 15%. In our experience, this typically results after urethroplasty is performed utilizing an end-urethrostomy technique. This case series presents two patients with a history of vaginoplasty using end-urethrostomy technique who developed urethral meatal stenosis, leading to significant lower urinary tract symptoms (LUTS). The first patient, a 42-year-old, developed urethral and vaginal stenosis within three months of initial vaginoplasty. The second patient, a 66-year-old who underwent vaginoplasty in the 1970s, presented with long-standing LUTS that including poor stream, prolonged urination, and nocturia. Both cases utilized a ventral ("loop") urethrostomy conversion technique with adjunctive procedures for revision.

Methods: After the patient is positioned in low lithotomy, attempts at urethral calibration with bougie dilators are first performed. The ventral surface of urethra is incised and the urethrotomy is carried proximally until the opening of the urethra is directly aligned with the external sphincter. Cystourethroscopy is then performed to confirm no additional pathology. Dissection is continued underneath the urethra where redundant corpus spongiosum along the bulb is excised. The urethral mucosa is sutured to the tunica of the corpus spongiosum to close the spongiosum space with 3-0 polyglactin suture. With the urethral-spongiosum complex closed, the lateral skin is brought to its edges with interrupted 3-0 polyglactin suture as well. To prevent the inferior skin from obstructing the new, lower urethral meatus, a perineal inverted U-flap is developed. This is sutured in place to the inferior most aspect of the urethral meatus. The resulting perineal defects on both sides are closed with interrupted suture. A 16 Fr catheter is placed and removed within one week post-operatively.

Results: AUA--SS QOL score improved from "unhappy" to "delighted" and "pleased" at three-month follow-up with near resolution of voiding symptoms. The 42-year-old patient was again seen after one year and denied voiding difficulties. Both cases expectedly resulted in some degree of diminished vaginal depth.

Conclusion: These cases demonstrate the efficacy of loop urethrostomy with perineal tissue transfer in treating urethral stenosis in transgender female patients. Long-term outcomes of end-urethrostomy and loop urethrostomy at the time of initial vaginoplasty should be investigated.

Funding: N/A



Podium #84

PERIOPERATIVE OUTCOMES OF MINIMALLY INVASIVE VERSUS OPEN SACROCOLPOPEXY

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Mount Sinai Medical Center

Presented By: Spencer S. Liem, MD

Introduction: Sacrocolpopexy has become the gold standard for surgical management of pelvic organ prolapse. In this study, we compare the perioperative outcomes for patients undergoing minimally invasive (MIS) vs open sacrocolpopexy (OS).

Methods: Using the National Surgical Quality Improvement Program Database (NSQIP), we identified sacrocolpopexy with current terminology procedure codes (CPT 57280 and 57525). We reported patient comorbidities, intraoperative and postoperative complications, as well as 30-day events from 2016-2020. T-tests and Fisher's Exact Test were used accordingly.

Results: Between 2016-2020, a total of 1079 patients underwent an open or minimally invasive sacrocolpopexy, 194 OS and 885 MIS. Similar BMI (28.1 vs 28.4) and operative times (155 vs. 166 minutes) were observed between the two groups. In terms of patient demographics, patients undergoing OS had higher rates of hypertension (52.6% vs. 42.7%) and ASA class II and III (60.3% vs. 68.4%, and 34.5% vs 25.6%). Although patients undergoing OS were more likely to have cardiac arrest, reintubation and deep incisional infections, this was only reported in 1 patient for each complication. While there was a higher rate of readmission for patients undergoing OS (5.2 vs 2.4%, p=0.036), overall complications in both groups remained relatively low.

Conclusion: Patients undergoing OS tended to have higher rates of hypertension and were more likely to be of ASA Class II and III compared to those undergoing MIS and had a statistically significant higher rate of readmission. Despite this, overall complication rates were low for both groups.

Funding: N/A

Table 1 – Baseline Characteristics and Outcomes of Patients Undergoing Open versus Minimally Invasive Sacrocolpopexy (2016-2020)

	Open (n = 194)	Minimally Invasive (n = 885)	p-value
Age (years)	65 ± 11.1	64 ± 10.5	0.235
Body Mass Index (BMI)	28.1 ± 4.9	28.4 ± 5.3	0.470
Operative Time (min)	155 ± 77.6	166 ± 73.3	0.061
Comorbidities			
Insulin-Dependent DM	3 (1.5%)	17 (1.9%)	0.726
Non-Insulin Dependent DM	26 (13.4%)	94 (10.6%)	0.265
Smoking*	21 (10.8%)	63 (7.1%)	0.081
Dyspnea – at rest	1 (0.5%)	0 (0.0%)	0.033
Dyspnea – at exertion	6 (3.1%)	21 (2.4%)	0.561
COPD	5 (2.6%)	20 (2.3%)	0.790
CHF	0 (0.0%)	0 (0.0%)	1.000
Hypertension	102 (52.6%)	378 (42.7%)	0.012
Malnourishment	0 (0.0%)	1 (0.1%)	0.640
Bleeding disorder	3 (1.5%)	9 (1%)	0.524
Chronic Steroid Use	4 (2.1%)	14 (1.6%)	0.636
ASA			
1	10 (5.2%)	46 (5.2%)	0.980
2	117 (60.3%)	605 (68.4%)	0.031
3	67 (34.5%)	227 (25.6%)	0.012
4	0 (0.0%)	7 (0.8%)	0.214
Post-operative Complications			
Cardiac arrest	1 (0.5%)	0 (0.0%)	0.033
Reintubation	1 (0.5%)	0 (0.0%)	0.033
Transfusions	0 (0.0%)	1 (0.1%)	0.640
Myocardial Infarction	0 (0.0%)	1 (0.1%)	0.640
CVA/Stroke	0 (0.0%)	1 (0.1%)	0.640
Deep Vein Thrombosis	1 (0.5%)	1 (0.1%)	0.238
Pulmonary Embolism	2 (1.0%)	2 (0.2%)	0.095
Pneumonia	1 (0.5%)	3 (0.3%)	0.714
Acute Renal Failure	1 (0.5%)	1 (0.1%)	0.238
Urinary Tract Infection	5 (2.6%)	30 (3.4%)	0.563
Sepsis	0 (0.0%)	2 (0.2%)	0.508
Septic shock	1 (0.5%)	1 (0.1%)	0.238
Superficial Incisional Infection	2 (1.0%)	7 (0.8%)	0.739
Deep Incisional Infection	1 (0.5%)	0 (0.0%)	0.033
Organ Infection	1 (0.5%)	4 (0.5%)	0.906
Wound Disruption	0 (0.0%)	0 (0.0%)	1.000
30-day events			
Return to Operating Room	3 (1.5%)	15 (1.7%)	0.664
Readmission	10 (5.2%)	21 (2.4%)	0.036
Death	1 (0.5%)	0 (0.0%)	0.033

DM – Diabetes mellitus; CVA – cerebrovascular accident; COPD – Chronic Obstructive Pulmonary Disease; CHF – Congestive Heart Failure
*Smoker within the last year

Poster #1

FEATURES ASSOCIATED WITH IN-PERSON FOLLOW UP CARE FOLLOWING VIRTUAL VISITS IN UROLOGY

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Presented By: Eric Qualkenbush, MD

Introduction: Telehealth visits in urology dramatically increased during the COVID-19 pandemic. However, the degree to which virtual visits translate to subsequent in-person care remains underexplored. This information is potentially valuable for urologic practices to help optimize efficient time and resource allocation. The primary aim of this study was to evaluate features associated with in-person encounters following a virtual visit with our urology department.

Methods: We retrospectively identified patients seen for a video visit at our center with either a NEW or CONSULT billing code between January 2022 – December 2023. The primary outcome was whether patients visited our campus within 90 days for in-person care, excluding emergency room visits. The secondary outcome was to assess features associated with receiving urological surgery within 90 days. Demographic and clinical data including reason for consultation was collected. Logistic regression was used to model the effect of patient features on subsequent in-person care, using benign prostatic hyperplasia (BPH) as the referent category for visit diagnosis.

Results: We identified 1,079 video visits over the study period, of whom 598 (55%) sought subsequent in-person care within 90 days. Following multivariable adjustment, patients who lived more than 300 miles away (aOR 0.38, 95% CI 0.27-0.52) and those with prostate cancer (aOR 0.4, 95% CI 0.27-0.58) were less likely to pursue in-person care, while patients with Medicare Advantage insurance (aOR 2.3, 95% CI 1.1-4.8) and increasing Charlson comorbidity index (aOR 1.44, 95% CI 1.1-1.9) were more likely to pursue in-person care.

Among the 598 patients who sought in-person care, 413 (69%) underwent a urological surgery within 90 days. After multivariable adjustment, patients with kidney cancer (aOR 0.25, 95% CI 0.11-0.55), elevated PSA (aOR 0.14, 95% CI 0.07-0.27) and prostate cancer (aOR 0.31, 95% CI 0.16-0.60) were less likely to pursue in-person surgical care than those with BPH.

Conclusion: We observed that patients who lived furthest from our center and those seeking care for prostate cancer were least likely to pursue in-person care after a video visit. This novel investigation suggests that to limit low-yield video consultations, urologists may consider capping the number of video visits or implementing a geographic radius limit for video prostate cancer consultations.

Funding: n/a

Poster #2

COST PLUS DRUGS OFFERS A NEW OUT-OF-POCKET COST SAVINGS FOR PATIENTS

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Presented By: Zachary M. Connelly, MD, PhD

Introduction: Continually rising healthcare costs impede some patients from optimal treatment. One common barrier to effective treatment is the affordability of medications. Recently, Cost Plus Drugs (CPD) came to the pharmaceutical market to offer prescriptions at a 15% markup from manufacturer pricing and a flat \$5 shipping cost. Our study aimed to see how this new company's most common surgery and genitourinary-specific drug prices compete with the current retail market and GoodRx, a nationally endorsed prescription discount program.

Methods: First, we aimed to understand the most prescribed medications in urology and general surgery throughout the state of Louisiana between August 2020 and August 2023. We then looked into every urology-based CPD medication at twenty different geographical locations with 6 different retailers with and without the use of a GoodRx coupon. SPSS software was used to conduct paired T-tests and a one-sample T-test to analyze the data.

Results: Thirty-nine percent (59/150) of the top medications prescribed were listed on CPD. Tamsulosin was the most prescribed urology-specific medication, over 37,000 times followed by, ciprofloxacin, finasteride, tadalafil, and sildenafil. The geographical location did not influence pricing at the retail and GoodRx level; however, retailers themselves varied. GoodRx was a cheaper option in 45 of the 59 medications compared to retail pricing. CPD pricing was cheaper than retail and GoodRx pricing in 97% (57/59) of medications, famotidine, and myrbetriq. CPD was significantly cheaper ($p < 0.05$) than 20/20 retailers and 17/20 GoodRx of the genito-urinary-specific medications. All ($n=12$) antibiotics, anti-nausea ($n=4$), and anti-inflammatory ($n=3$), studied were cheaper on CPD than on GoodRx. Sixteen percent ($n=10/59$) of medications were not cheaper than GoodRx when you factor in the \$5 shipping cost; however, this cost could easily be mitigated if multiple medications needed to be shipped.

Conclusion: Cost Plus Drugs is a great option for patients when looking to decrease out-of-pocket costs on their prescriptions. Although a limited number of medications exist, the most prescribed urology medications are available, and these medications are cheaper than the most commonly promoted coupon group, GoodRX, which is found in clinics everywhere. Physicians should be aware of CPD and provide resources similar to GoodRX in their clinic.

Funding: N/A

Poster #3

THE EFFECT OF DISCHARGE DESTINATION ON READMISSION AND UNPLANNED HEALTHCARE UTILIZATION AFTER RADICAL CYSTECTOMY

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Presented By: Maxwell Louis Sandberg, MD, MS

Introduction: Initiatives to reduce postoperative readmissions and emergency department (ED) visits after major surgery have been reported. Literature highlights rates of postoperative complication after radical cystectomy (RC) near 50% within three months. Providers may hesitate to offer RC to those presumably at increased risk of complications resulting from inadequate post-discharge resources, and patients may be reluctant to undergo surgery due to financial toxicity associated with resource procurement. Our primary purpose was studying utilization rates of home nursing assistance (HNA) and skilled nursing facility (SNF) placement after RC and evaluating if their use was associated with ED visits, hospital readmissions, or mortality. Secondarily, we evaluated if patient socioeconomic status was associated with these factors following RC.

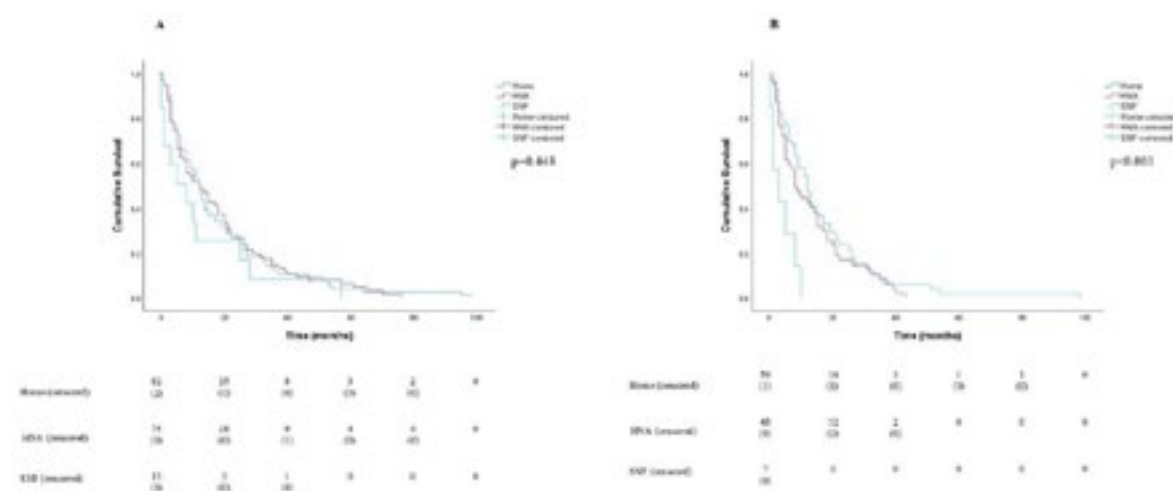
Methods: Patients who underwent RC for bladder cancer were retrospectively analyzed. Discharge destination (DD) was labeled as home, HNA, or SNF. The incidence of ED visits was recorded at 30- and 90-days after discharge from surgical admission. Readmissions were tracked similarly. Area Deprivation Index (ADI) was collected on each patient and organized in quartiles (ADIQ), with worsening socioeconomic status as ADIQ increased. Statistical analysis was run using chi-squared tests, independent samples t-tests, and Kaplan-Meier survival curves.

Results: 215 patients were discharged home, 148 to HNA, and 25 to SNF. ED visits and readmissions after RC at the 30- and 90-day marks did not differ based on DD ($p>0.05$). Home patients had a lower incidence of death after RC compared to HNA and SNF ($p=0.037$), but not overall survival (OS) ($p=0.572$). SNF patients had a significantly lower cancer-specific survival (CSS) ($p<0.001$). Readmission to the hospital after 30-days of discharge was more likely as ADIQ increased ($p=0.017$). DD, ED visits, and readmission after 90-days of discharge from RC was not different based on patient ADIQ ($p>0.05$). Figure 1 compares OS and CSS between discharge destinations using Kaplan-Meier survival analysis.

Conclusion: Discharge to home after RC is associated with lower mortality rates. CSS is worse in SNF patients. Rates of readmission and utilization of ED resources appear independent of DD. A greater ADIQ may interact with likelihood of admission post-RC. Future efforts remain warranted to address disparities in postoperative management in the pursuit of health equity in urology.

Funding: N/A

Figure 1. Kaplan-Meier Survival Analysis. The following figure compares (A)-overall survival after initial hospital discharge for radical cystectomy based on discharge location (home, home with nursing assistance [HNA], and skilled nursing facility [SNF]) as well as (B)-cancer-specific survival. Time is in months. On the y-axis cumulative survival is shown, and each number represents the cumulative percent of patients alive at a particular point in time. Number at risk table showing all patients who experienced the event of interest (death) is also provided with censored data. Using the log-rank test, a significant difference in cancer-specific survival based on discharge destination was seen ($p=0.001$).



Poster #4

SAME-DAY HOSPITAL DISCHARGE TO A VIRTUAL HYBRID CARE HOTEL FOLLOWING HOLMIUM LASER ENUCLEATION OF THE PROSTATE DOES NOT ADVERSELY IMPACT QUALITY OUTCOMES

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Mayo Clinic Florida

Presented By: Sarah Hampton, BS, MD

Introduction: Historically, patients undergoing holmium laser enucleation of the prostate (HoLEP) are admitted overnight. Recent literature suggests same-day discharge is safe and effective following HoLEP for most patients. We evaluated the feasibility of same-day discharge to a virtual hybrid Care Hotel (CH) model equipped with a combination of daytime nursing support and virtual monitoring with both biometric devices and clinical team personnel in patients undergoing HoLEP.

Methods: The CHI is a hybrid-care model where patients are discharged same-day that would otherwise have resulted in an overnight hospital stay. In the CH, patients have access to an on-call nurse, paramedic team, and phone access to the Command Center (CC) for medical questions or concerns. The primary outcomes were 24-hour hospital readmission and ED visit rates following discharge to CH. Other variables collected include demographics, ASA class, length of surgery, patient calls to the Command Center, and 30-day readmissions, ED visits, Clavien-Dindo complications, and patient encounters. Patient encounters were defined as any contact with a clinical staff member (in-person visit, phone call, patient portal message). Encounters were further classified as expected or unexpected.

Results: Of 288 patients discharged to the CH following HoLEP from 8/5/2021 to 8/25/2023, 34% of patients had BMI > 30, 49% of patients were an ASA 3 or 4, and 67% of patients traveled over 100 miles to receive surgery. There were seventeen 48-hour emergency department visits (5.9%) with one 48-hour readmission. There were thirty emergency department visits within 30 days. There were 191 unexpected encounters. BMI greater than 30 was associated with 30-day readmission rates (0.032). The number of unexpected postoperative encounters was associated with Clavien-Dindo score ($p < 0.001$). There was a clinically significant direct correlation between the amount of time spent calling the command center and age ($p = 0.017$). Complications, emergency department visits, and unexpected encounters were not correlated with patient demographics, ASA class, or length of surgery ($p > 0.05$).

Conclusion: Same-day discharge to the CH following HoLEP was safe with few 48-hour readmissions. Patients discharged to the CH were spared an overnight hospital stay and had low rates of healthcare utilization post-operatively, likely resulting in significant cost-savings.

Funding: N/A

Poster #5

PATIENT SATISFACTION AFTER SAME DAY DISCHARGE FOR HOLEP USING THE SURGICAL SATISFACTION QUESTIONNAIRE (SSQ-8)

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Presented By: Pablo Suarez, B.S

Introduction: Following the COVID-19 pandemic, same-day discharge (SDD) after holmium laser enucleation of the prostate (HoLEP) has become a common practice among urologists to enhance hospital efficiency. SDD patients experience comparable rates of urologic complications and, hospital readmissions when compared to those who remain hospitalized postoperatively. However, the patient perspective on SDD has been largely overlooked in this context. This study aims to address this gap by assessing patient satisfaction after HoLEP using a validated questionnaire and comparing both discharge approaches.

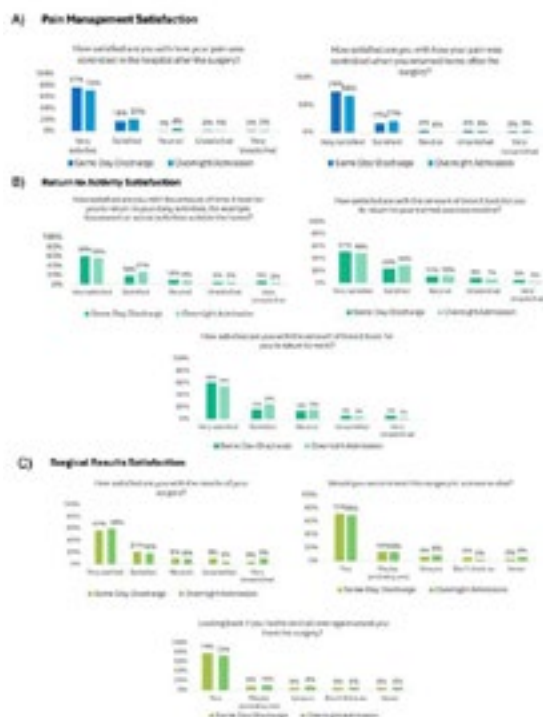
Methods: A RedCap survey was distributed to a cohort of patients who underwent HoLEP at a single academic center between 2018-2023. Patient demographics, comorbidities, and surgical outcomes were abstracted from the EHR. Inclusion criteria for same day surgery were prostate size <150g, ASA class ≤ 2, and adequate family support. Primary outcome was surgical satisfaction scores assessed in a Likert-Scale (1-5) using the validated Surgical Satisfaction Questionnaire (SSQ-8). Questions were subdivided into three main domains: 1) pain management, 2) return to activity 3) surgical outcomes. Student's t-test, chi-square analysis and multivariable logistic regression models were used for analysis.

Results: From a total of 413 patients, 257 responded to our survey with a response rate of 62%. Of which, 146(57%) were overnight admissions and 111(43%) were SDD. Patients in the SDD group had smaller prostate sizes (89.6 ± 47.9 vs 118.4 ± 73.2 , $p = <0.001$) and were more likely to have college degree (39.6% vs 19.2%, <0.001) without other differences in demographic characteristics or other comorbid conditions. When comparing SDD to overnight admitted patients, satisfaction score distribution was equivalent for questions related to pain management, return to activity, and surgical outcomes. (Figure 1; $p > 0.05$). The overall satisfaction scores were also comparable between SDD and overnight admission (84 vs 83.3, $p = 0.82$).

Conclusion: Same day discharge after HoLEP does not correlate with lower surgical satisfaction scores. This data supports that same day discharge HoLEP achieves similar patient satisfaction as overnight admission.

Funding: N/A

Figure 1. Distribution of Surgical Satisfaction Scores



Poster #6

DISPOSABLE CYSTOSCOPES DO NOT DECREASE POST RENAL TRANSPLANT STENT REMOVAL INFECTION RATES

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Presented By: Neda Qosja

Introduction: A recent publication noted that conversion to disposable cystoscopes decreased post-cystoscopy encounters and infection rates compared to reusable scopes [1]. Our objective was to evaluate the effect of disposable cystoscopes on the rate of symptomatic urinary tract infections (UTIs) in patients who had cystoscopic stent removal following renal transplantation.

Methods: We performed a retrospective study of post-renal transplant cystoscopic stent removals in our outpatient clinic from March 2019 to March 2022. Our clinic converted to disposable cystoscopes in October 2021. All outpatient, phone, and portal encounters were reviewed for 30 days following the procedure. The primary outcome was the number of post-procedural symptomatic UTI within 30 days of the procedure. Symptomatic UTI was defined as fever, dysuria, or hematuria accompanied by a positive urine culture.

Results: A total of 323 patients had post-transplant stent removals including 123 with reusable scopes and 200 with disposable scopes. The median age for patients with a disposable cystoscope was 57 years (IQR: 42-66) and 59 years (IQR: 46-48) with a reusable cystoscope. 1.6% (2/123) of patients with a reusable cystoscope experienced symptomatic UTIs. They had positive urine cultures for Escherichia (E. Coli) and Klebsiella. 2.0% (4/200) of patients with a disposable cystoscopy had a symptomatic UTI. The three types of positive urine cultures they experienced were (Escherichia) E. Coli, Klebsiella, and Enterococcus.

Conclusion: The conversion from reusable to disposable cystoscopes did not decrease symptomatic UTI following renal transplant stent removal.

References:

1. Geldmaker LE, Baird BA, Lyon TD, et al. Conversion to Disposable Cystoscopes Decreased Post-procedure Encounters and Infections Compared to Reusable Cystoscopes. Urol Pract. 2023;10:312-317.

Funding: NA

Poster #7

AN EVALUATION OF THE EXPANSION OF CARE AVAILABLE FOR PROSTATE MRI CANDIDATES BASED ON PATIENT POPULATION FOLLOWING MAJOR MILESTONE RESEARCH

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Presented By: Lillian Royston, BS

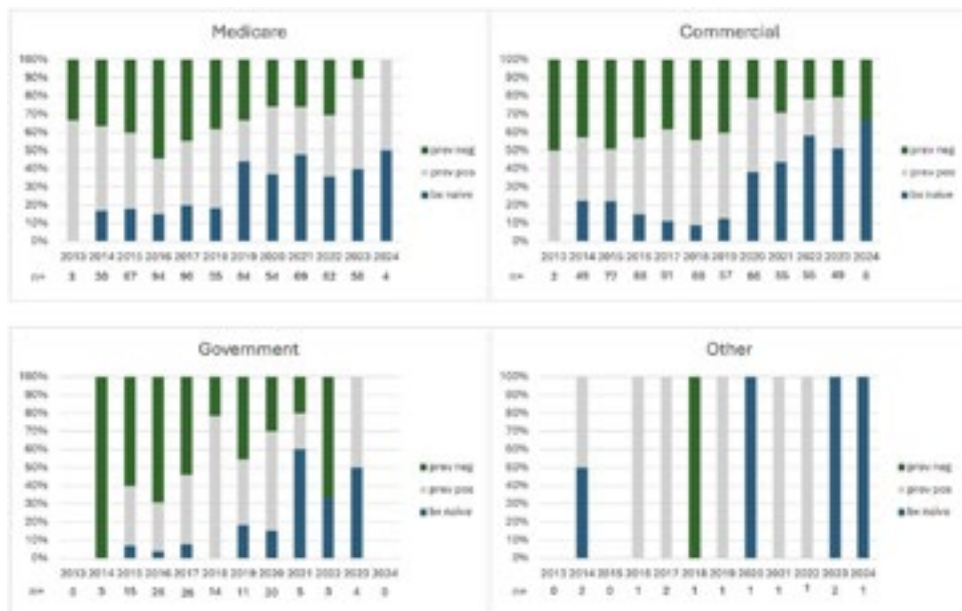
Introduction: Prostate cancer is one of the most common cancers worldwide and one of the leading causes of cancer death among men. Development of multiparametric magnetic resonance imaging (mpMRI) of the prostate has led to the guidance of biopsies (termed MRI/TRUS-guided fusion biopsy), allowing for more accurate detection, localization, and surveillance of prostate cancer. This study aimed to evaluate how patient biopsy history impacted how insurance companies expanded care for MRI candidates following the publication of major milestone research supporting its use.

Methods: Data from 1479 mpMRIs used to guide fusion biopsies at UAB between 2013 and 2024 were evaluated. Patient demographics included age at the time of MRI, race, clinical stage based on digital rectal exam (DRE), prostate specific antigen (PSA) level at the time of biopsy, average number of prior biopsies, and the average number of lesions found on MRI. MRI encounters were grouped according to biopsy history with 26.43% biopsy naïve, 36.57% having previously negative biopsies, and 36.98% having previously positive biopsies. These cohorts were further subdivided according to insurance coverage (Medicare, commercial, government, and other) at the time of MRI to evaluate how insurance companies expanded coverage. Overall, 45.70% had Medicare, 44.82% had commercial, 8.58% had government, and 0.87% had "other" insurance.

Results: Of the three biopsy histories, the proportion of patients who were biopsy naïve undergoing mpMRI expanded the most, especially amongst those with Medicare. The proportion of those with previously negative biopsies gradually increased then decreased over time amongst those with Medicare, while remaining relatively stable then gradually decreasing amongst those with commercial insurance. The proportion of those with previously positive biopsies managed with active surveillance remained relatively stable over time amongst all three major insurance types.

Conclusion: Comparison of the proportions of MRIs covered by medical insurance payers between 2013 and 2024 based on biopsy history was noted. The greatest increase in proportion of those undergoing mpMRI across all insurance types was seen in the biopsy naïve cohort, demonstrating the utility in its expanding use as a means to screen for prostate cancer and obtain more targeted biopsy specimen sampling for diagnosis, proving viability and cost efficacy from a US public health perspective.

Funding: N/A



Poster #8

OPIOID PRESCRIPTIONS FOR PATIENTS WITH NEPHROLITHIASIS IN THE ONEFLORIDA DATA TRUST (ONEFLORIDA+)

Artenisa Kulla¹, Elizabeth Kwenda², Chengbo Liang¹, Juan Varela¹, Anjalika Chalamgari¹, Russell Terry², Benjamin Canales², Yi Guo³, Xingke Liu³, Vincent Bird², John DiBianco²

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Presented By: Elizabeth Kwenda, MD

Introduction: Due to pain from acute renal colic or postoperative kidney stone procedures, opioid medication has been the historic mainstay treatment for nephrolithiasis patients. Recently, the epidemic of opioid over-prescription and its subsequent consequences has been scrutinized, leading to alternative regimens. Previous work has characterized the utilization of opioids in urology, but few have studied variations in care of large diverse cohorts of stone formers across multiple institutions. Thus, we examined the OneFlorida Data Trust (OneFlorida+) to assess the rates of opioid utilization for patients with nephrolithiasis.

Methods: OneFlorida+ is a large clinical research network comprised of partnered academic institutions and health systems across Florida, Georgia, and Alabama. OneFlorida+ data contains diagnoses, procedures, medications, demographics, laboratory results, and other elements reported in the Patient-Centered Outcomes Research Institute (PCORI) Common Data Model. Using OneFlorida+, we identified all adult patients (≥18 years) diagnosed with nephrolithiasis between 1/1/2012-12/31/2022 with at least 1 year follow up within our database. Stone treatment procedures were then stratified by treating facility. We assessed and compared the rates of postoperative opioid prescription based on intervention (stent placement, shockwave lithotripsy (SWL), ureteroscopy, or percutaneous nephrolithotomy (PCNL)).

Results: At 10 different facilities across the state of Florida, a total of 181,298 patients had a kidney stone encounter while 52,566 had a stone procedure (Table). Opioids were prescribed to 13.1% during stone encounters and to 32.6% of patients following a procedure. Patients undergoing PCNLs were most likely to be prescribed opioids, at a rate of 42.7%, followed by stent placement (36.1%), ureteroscopy (35.1%) and SWL (19.4%). Lastly, significant variation in opioid prescription was noted by institution, ranging from 0%-77%.

Conclusion: A considerable percentage of patients with nephrolithiasis are prescribed opioids at some point in their therapeutic timeline. A large proportion of patients undergoing endourological procedures for nephrolithiasis receive prescription opioids postoperatively. As the invasiveness of the procedure increases, so does the rate of prescription. Further, procedures likely utilizing ureteral stents, are associated with higher opioid prescription rates. Lastly, there is significant variation in opioids prescription rates regardless of procedure, indicating a difference in practice across institutions and providers and an opportunity for quality improvement.

Funding: N/A

Table. Opioid Prescription Rates Stratified by Patients and Procedures in OneFlorida+

Patients Diagnosed with Nephrolithiasis							
	All	No Intervention	Stent Placement	SWL	URS	PCNL	Multiple Interventions
Patients (N)	181,298	150,489 (83.0%)	2,362 (1.3%)	3,641 (2.0%)	5,497 (3.0%)	1,117 (0.6%)	18,192 (10.0%)
Prescribed any Opioid	17,313 (13.1%)	14,941 (12.7%)	232 (13.6%)	585 (25.0%)	995 (15.9%)	79 (9.3%)	881 (14.5%)

Procedures Performed on Patients with Nephrolithiasis							
	All	-	Stent Placement	SWL	URS	PCNL	-
Procedures (N)	52,566		16,955 (32.3%)	11,199 (21.3%)	20,896 (39.8%)	3,516 (6.7%)	
Prescribed any Opioid	17,117 (32.6%)		6,114 (36.1%)	2,171 (19.4%)	7,331 (35.1%)	1,501 (42.7%)	

SWL: Shockwave Lithotripsy; URS: Ureteroscopy; PCNL: Percutaneous Nephrolithotomy

Poster #9

ASSESSING BARRIERS TO TELEMEDICINE ACCESS FOR UROLOGIC CARE IN RURAL EAST TENNESSEE

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¹University of Tennessee College of Medicine, ²University of Tennessee Medical Center

Presented By: Andrew Wofford, MD

Introduction: Healthcare access in rural regions is a growing issue among both primary care and specialist fields, including urology. The increasing use of telemedicine following the COVID-19 pandemic allowed patients living in rural areas the opportunity to save on cost and travel time for their urology appointments. Despite telemedicine's expanded geographical reach, there remained barriers to access to care, including access to internet and technology required to log on to a virtual visit. Our urology practice sought to identify barriers to telemedicine access among the rural patients of East Tennessee.

Methods: We performed a prospective, cross-sectional study in which descriptive multiple-choice surveys assessing patient demographics and barriers to telemedicine access were distributed to 211 patients across 4 urology clinic locations. We compared the rural clinic patient responses to the urban clinic patient responses.

Results: Patient age and gender were similar among rural and urban patients. Rural patients reported less income, lower level of education, and were less likely to have private insurance than urban patients. Rural patients were less likely to have access to a cell phone or a smart phone and less likely to have access to reliable cell phone service. Rural patients were also less likely to have access to a computer with a web camera and were less likely to have access to Wi-Fi. Despite these disparities, there was no difference between rural and urban patients in preference for a telemedicine visit.

Conclusion: Our findings demonstrate that patients in rural communities tend to have technological and socioeconomic barriers that may limit their ability to access healthcare through the telemedicine format. Despite these barriers, rural patients have interest in using telemedicine, possibly driven by necessity due to limited specialist care in rural areas. While telemedicine holds promise for expanding access to urologic care, particularly in underserved areas, addressing these socioeconomic barriers and ensuring patients have the means to access the visit format are keys to its success.

Funding: N/A

Poster #10

EXPLORING PROSTATE-SPECIFIC ANTIGEN (PSA) TESTING RATES AND SCREENING DISPARITIES IN THE ALL OF US DATASET

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Presented By: Jonathan Ryan

Introduction: Prostate cancer (PCa) screening patterns in the United States remain unclear, with suspected disparities among ethnic groups. This study aims to examine PCa screening disparities among ethnic groups in the U.S. using the All of Us database, a prospective clinico-genomic resource composed of a diverse population.

Methods: White, Black, Hispanic, and Asian males ≥ 40 years old were included, excluding diagnosis's that conflict with PCa screening. We analyzed prostate-specific antigen (PSA) screening rates by age based on American Urological Association guidelines, using multivariable logistic regression (MLR) and a Cox time-to-event models that considered race, age, income, education, insurance, and home ownership as independent variables. Initial screening ages and biopsy rates were also compared.

Results: Of 56,473 individuals, 18,088 had PSA measurements: 74% White, 15% Black, 9% Hispanic, and 2% Asian. Hispanic (20%) and Black (21%) minorities were less likely to undergo PSA screening compared to White men (39%, $p<0.001$). However, minorities had their initial PSA earlier with their first test from 53-54 years old compared to White men at 58 years ($p<0.001$). MLR revealed race, age, income, education, insurance type, and home ownership as screening predictors ($p<0.001$). Screened Black men had higher odds of an elevated PSA ($p<0.001$), but the likelihood of receiving a biopsy post-elevated PSA did not significantly differ from White men ($p=0.821$). Additionally, those screened at age ≥ 70 were more likely to be White, have at least a college education, and be homeowners ($p<0.001$).

Conclusion: White men, despite starting at a later age, are screened with PSAs more frequently than minorities, and often undergo screening at older ages outside the recommended guidelines. Black men did not have a higher rate of biopsy after having an elevated PSA compared to White men.

Funding: N/A

Factor	Level	% of Men w/ PSA	OR [95% CI]	P-value
Race/ Ethnicity	White (<i>Ref</i>)	39	-	-
	Black	21	0.81 [0.75-0.88]	<0.001
	Hispanic	20	0.8 [0.73-0.88]	<0.001
	Asian	30	0.85 [0.72-1]	0.056
Age (years)	55-69 (<i>Ref</i>)	35	-	-
	40-54	12	0.26 [0.24-0.28]	<0.001
	≥ 70	47	1.12 [1.04-1.19]	<0.001
Education	> High School (<i>Ref</i>)	38	-	-
	= High School	22	0.83 [0.77-0.9]	<0.001
	< High School	17	0.74 [0.65-0.83]	<0.001
Home	Own (<i>Ref</i>)	42	-	-
	Rent	24	0.8 [0.75-0.86]	<0.001
Income (per year)	> \$75,000 (<i>Ref</i>)	42	-	-
	\$35,000-\$75,000	39	0.97 [0.91-1.03]	0.275
	< \$35,000	22	0.81 [0.75-0.88]	<0.001
Insurance	Employment (<i>Ref</i>)	34	-	-
	Multi-Insured	46	1.24 [1.14-1.34]	<0.001
	VA/Military	53	2.22 [1.95-2.53]	<0.001
	Medicare	39	0.85 [0.78-0.92]	<0.001
	Medicaid	15	0.65 [0.58-0.72]	<0.001
	Uninsured	16	0.87 [0.76-1.01]	0.067

Poster #11

EVALUATING POSTOPERATIVE IMAGING RATES AFTER KIDNEY STONE INTERVENTIONS: A STATEWIDE ANALYSIS USING ONEFLORIDA+ DATA

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Introduction: Almost one million kidney stone procedures are performed annually in the United States. Postoperative imaging is recommended and instrumental in evaluating procedure success and identifying complications. However, prior work has demonstrated that a minority of patients obtain postoperative imaging, and clinical disparities may account for this discrepancy. We therefore examined the rates of postoperative imaging for patients with nephrolithiasis using electronic health records (EHRs) data from the OneFlorida+ clinical research network.

Methods: OneFlorida+ is a large clinical research network comprised of partnered academic institutions and health systems across Florida, Georgia, and Alabama. OneFlorida+ EHR data contains diagnoses, procedures, demographics, and other data elements reported in the Patient-Centered Outcomes Research Institute (PCORI) Common Data Model. We assessed all patients ≥ 18 diagnosed with nephrolithiasis and treatment procedures between 1/1/2012-12/31/2022 in OneFlorida+ with ≥ 1 year of data. We examined all patient demographics by procedure and compared the rates of postoperative imaging based on intervention: stent placement, shockwave lithotripsy (SWL), ureteroscopy (URS), or percutaneous nephrolithotomy (PCNL). We likewise assessed facility-specific imaging trends to evaluate homogeneity in postoperative care (Chi-Squared test).

Results: We identified 52,566 procedures with a mean age at time of procedure of 54.34 (Table 1). 32.3% were stent placement, 21.3% SWL, 39.7% URS, and 6.7% PCNL. Most patients were male (51.8%) and White (79.2%), although a significant proportion were minority populations: 10% Black and 21.6% Hispanic. The 90-day postoperative imaging rates were 32.9%, 18.2%, 31.0%, and 58.2% for stent placement, SWL, URS, and PCNL, respectively. Between facilities, postoperative imaging rates between all centers were weakly correlated at 0.1398 ($p > 0.1$).

Conclusion: Following a nephrolithiasis procedure, imaging rates are low with significant variability noted by procedural type; the highest imaging rate was observed after PCNL and the lowest after SWL. There were no significant differences noted based on individual race, ethnicity, or insurance status. There was significant variability between facilities, suggesting that the receipt of postoperative imaging is more institution dependent. This work represents a potential opportunity for quality improvement as high-performing facilities may have strategies that other institutions can adopt. Further research is needed to understand the clinical outcomes associated with different imaging strategies and their long-term impact.

Funding: N/A

Table 1. Characteristics of Nephrolithiasis Patients in OneFlorida+

Procedure Statistics on Patients with Nephrolithiasis									
	URS		SWL		STP		PCNL		
Procedure (N)	12,000	-	10,000	10,000	10,000	10,000	10,000	10,000	
Mean Age	54.34	-	54.34	54.34	54.34	54.34	54.34	54.34	
Gender									
Male	7,700	(64.1%)	8,000	(80.0%)	8,000	(80.0%)	8,000	(80.0%)	
Female	4,300	(35.9%)	2,000	(20.0%)	2,000	(20.0%)	2,000	(20.0%)	
Race									
White	7,700	(64.1%)	8,000	(80.0%)	8,000	(80.0%)	8,000	(80.0%)	
Black	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Hispanic	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Other	2,300	(19.3%)	0	(0.0%)	0	(0.0%)	0	(0.0%)	
Facility (N)									
Facility A	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility B	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility C	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility D	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility E	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility F	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility G	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility H	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility I	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility J	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility K	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility L	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility M	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility N	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility O	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility P	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility Q	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility R	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility S	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility T	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility U	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility V	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility W	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility X	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility Y	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility Z	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AA	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AB	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AC	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AD	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AE	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AF	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AG	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AH	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AI	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AJ	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AK	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AL	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AM	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AN	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AO	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AP	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AQ	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AR	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AS	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AT	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AU	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AV	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AW	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AX	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AY	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility AZ	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BA	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BB	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BC	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BD	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BE	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BF	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BG	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BH	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BI	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BJ	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BK	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BL	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BM	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BN	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BO	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BP	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BQ	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BR	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BS	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BT	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BU	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BV	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BW	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BX	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BY	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility BZ	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CA	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CB	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CC	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CD	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CE	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CF	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CG	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CH	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CI	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CJ	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CK	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CL	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CM	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CN	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CO	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CP	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CQ	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CR	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CS	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CT	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CU	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CV	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CW	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CX	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CY	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility CZ	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility DA	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility DB	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility DC	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility DD	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility DE	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility DF	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility DG	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility DH	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility DI	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility DJ	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility DK	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility DL	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility DM	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility DN	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility DO	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility DP	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility DQ	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility DR	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility DS	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility DT	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility DU	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility DV	1,000	(8.3%)	1,000	(10.0%)	1,000	(10.0%)	1,000	(10.0%)	
Facility DW</									

Poster #12

STAGGERED-START ANESTHESIA PILOT IMPROVED ON-TIME STARTS AND ANESTHESIA RELEASE TIME (ART) FOR ROBOTIC AND OPEN KIDNEY SURGERY

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Presented By: Neda Qosja

Introduction: The Urology service was selected for a pilot program of anesthesia staggered starts. We assessed the principle of staggered starts on anesthesia release times and on-time starts in robotic and open kidney surgery (nephrectomy and partial nephrectomy).

Methods: At our institution, all patients are scheduled to roll into the operating room at 0730. An “on-time” start is categorized as being in the room by 0730. With a staggered start time of 0715 for select Urology cases, it was proposed that the percentage of on-time starts would increase and that ART (time from anesthesia induction to patient positioning) would shorten. We evaluated the impact of this staggered start program on one surgeon’s robotic and kidney surgery metrics. Data from the first 17 staggered start pilot days was compared to the previous 18 baseline days.

Results: Baseline group had 14 robotic kidney surgeries and 4 open surgeries. The pilot group had 17 robotic surgeries. On time starts improved from (15/18) at baseline to (16/17) in the staggered start pilot group (12.9% improvement). Wheels in room to induction improved from a mean 8.44 minutes to 7.65 minutes (9.4% improvement). Mean wheels in to anesthesia release time improved from 22.72 minutes to 20.12 minutes (11.4% improvement). When analyzing just robotic cases, there was an 18% improvement in wheels in to induction time (8.14 to 6.69 minutes) and a 15% improvement in wheels in to anesthesia release time (27.3 to 19.06 minutes).

Conclusion: Staggered anesthesia starts improved “on time” starts as well as in room to anesthesia release times in open and robotic kidney surgery.

Funding: NA

Poster #13

ASSESSING PATIENTS OF A REGIONAL, ACADEMIC MEDICAL CENTER CLINIC ON FAMILIARITY WITH CHATBOTS AND THEIR UROLOGY-RELATED UTILITY

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Presented By: Amica Lertkitcharoenpon, BS, BA

Introduction: Patients may utilize many options to obtain healthcare information. Artificial intelligence (AI) “ChatBots” may disseminate information specific to urology-related concerns for patients with limited healthcare access, however, their current utilization is unclear. We sought to understand their utility and any disparities by surveying urology patients of a regional, academic medical center on their familiarity with ChatBots.

Methods: A survey administered in the urology clinic collected socioeconomic demographic variables and their familiarity with ChatBot use. The primary outcome was answering “Yes” versus “No” to the question: “Are you familiar with the term “ChatBot,” which was compared using Chi-Squared and Kruskal Wallance tests (alpha = 0.05). Logistic regression calculated the odds of answering “Yes” versus “No,” adjusted for race-ethnicity, education level, insurance, technology comfort, internet access, and income—descriptive statistics compiled answers to subsequent questions asking if and how patients used ChatBots for urological-related information.

Results: Out of 317 survey respondents, 13 were excluded due to missing data. Table 1 provides socio-demographic comparisons between “Yes” (41%, 124/304) and “No” respondents. After adjusting for demographics, Black (OR 0.414, 95% CI 0.181-0.947) and Hispanic (OR 0.375, 95% CI 0.148-0.950) respondents had decreased familiarity with ChatBots compared to White respondents. High school graduates had lower familiarity (OR 0.230, 95% CI 0.092-0.575) than college graduates. Respondents with level 5 technology comfort had higher odds of ChatBot familiarity than level 3 (OR 2.390, 95% CI 1.110-5.166). No significantly different odds were demonstrated across insurance types or income levels. Of the 124 respondents familiar with ChatBots, 13 asked questions related to urology, of whom 46% addressed their primary clinic visit concern - mostly related to symptoms (62%) and treatment options (38%). Of this group, approximately 92% felt their questions were at least partially answered.

Conclusion: Fewer than half of urology patients in our region are familiar with ChatBots. While age and gender do not differ significantly between familiar and unfamiliar patients, other disparities, such as race-ethnicity and education, exist. Few familiar patients use ChatBots for urology-related questions. As AI evolves, further information is needed to assess the accessibility and utility of AI for various patient groups in the healthcare space.

Funding: N/A

Table 1: Baseline socio-demographic comparisons of respondents answering “Yes” versus “No” to the survey question “Are you familiar with the term ChatBots?”

		Yes (n = 124)	No (n = 186)	p-value
Age (years)	median (IQR)	63 (16)	59 (26)	0.085
Gender	Male	86 (41.3)	122 (56.7)	0.869
n (%)	Female	38 (30.6)	58 (60.4)	
Race/Ethnicity	White/Caucasian	96 (47.0)	107 (53.0)	0.002
n (%)	Black/African American	13 (27.1)	35 (72.9)	
	Hispanic/Latino	9 (21.4)	33 (78.6)	
	Other	7 (18.3)	5 (11.7)	
Education Level	Less than high school	4 (15.4)	22 (84.6)	< 0.001
n (%)	High school graduate	31 (24.0)	95 (76.0)	
	Trade/Tech/vocational	14 (48.3)	15 (51.7)	
	College graduate	47 (60.3)	31 (39.7)	
	Postgraduate degree	26 (66.7)	14 (33.3)	
Internet Access	Yes, reliable	113 (46.3)	131 (53.7)	< 0.001
n (%)	Yes, limited	10 (24.4)	31 (75.6)	
	No	1 (5.3)	18 (94.7)	
Technology Comfort Level	1 = Not at all comfortable	1 (5.3)	18 (94.7)	< 0.001
n (%)	2 = Somewhat uncomfortable	3 (12.5)	22 (88.0)	
	3 = Moderately comfortable	24 (29.6)	57 (70.4)	
	4 = Very comfortable	32 (43.8)	41 (56.2)	
	5 = Extremely comfortable	64 (60.4)	42 (39.6)	
Insurance	Commercial	64 (50.4)	53 (49.6)	0.604
n (%)	Medicare	26 (52.0)	52 (67.6)	
	Medicare Advantage	20 (51.3)	19 (48.7)	
	Medicaid	7 (29.8)	19 (73.1)	
	Other	8 (22.3)	27 (77.7)	0.010
Income	0-25k	19 (27.1)	51 (72.9)	
n (%)	25-50k	22 (36.1)	39 (63.9)	
	50-75k	22 (42.3)	30 (57.7)	
	75-100k	10 (38.5)	16 (61.5)	
	>100k	26 (61.7)	18 (38.3)	
	Undisclosed	22 (45.8)	26 (54.2)	
Home Language	English	116 (43.0)	154 (57.0)	< 0.001
n (%)	Spanish	3 (10.7)	25 (89.3)	
	Other	5 (53.3)	1 (16.7)	

Poster #14

TIMELINES OF PROSTATE CANCER DIAGNOSIS: EVALUATING DELAYS FROM PSA ELEVATION TO BIOPSY IN A PREDOMINATELY BLACK COHORT

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Presented By: Nicholas Jon Nordin, MD

Introduction: Prostate cancer is a significant health concern, especially for Black men, who face higher incidence and mortality rates compared to other racial groups. Early detection through PSA testing is crucial for identifying cancer at an early stage. Delays between initial PSA elevation detection and prostate biopsy can negatively affect oncological outcomes. Minimizing the time between cancer screening, diagnosis, and treatment is crucial for our patient population, which consists primarily of Black patients. We sought to quantify the time in this study from initial PSA elevation to biopsy and PSA levels at biopsy at our institution.

Methods: We conducted a retrospective cohort study using electronic health records from consecutive patients who underwent prostate biopsy following PSA elevation and subsequent prostatectomy between January 2019 and June 2024 at our institution's community hospital. Comparisons were made with national data, specifically from the Prostate Cancer Prevention Trial (PCPT), including median PSA values at biopsy and time intervals from elevated PSA to biopsy. Median PSA values were compared using Mann-Whitney U analysis.

Results: Fifty-nine patients were included in our study and 54 (84.4%) self-identified as "Black". The average age at the time of biopsy was 61.2 years. The median PSA value in our cohort was 8.1 (IQR 5.66-12.5) compared to 5.6 in the PCPT cohort ($p < 0.005$). The mean time from initial PSA elevation to biopsy was 130 days, versus "30-90 days" in the PCPT cohort. The median time from elevated PSA detection to surgery in our cohort was 156.5 days (IQR 96.8-256).

Conclusion: There is a delay in time from PSA elevation detection to prostate biopsy and therefore treatment in our population when compared to national data. The national data consists of mostly White patients versus our majority Black population. We feel the delay in time to biopsy is multi-factorial: limited hospital resources, limited access to healthcare facilities, and socioeconomic disparities that affect our patients' ability to receive timely and adequate care. Targeted interventions are essential to enhance access and overcome disparities in prostate cancer care.

Funding: N/A

Poster #15

EFFICACY AND SAFETY OF DAROLUTAMIDE PLUS ANDROGEN-DEPRIVATION THERAPY (ADT) IN PATIENTS WITH METASTATIC HORMONE-SENSITIVE PROSTATE CANCER (MHSPC) FROM THE PHASE 3 ARANOTE TRIAL

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Presented By: Zachary Klaassen, MD, MSc

Introduction: In ARASENS, darolutamide (DARO) + ADT + docetaxel significantly improved overall survival (OS) vs ADT + docetaxel in patients with mHSPC, and incidences of treatment-emergent adverse events (TEAEs) were similar in both groups. The phase 3 global ARANOTE trial (NCT04736199) compared DARO + ADT vs ADT in pts with mHSPC. Primary results are reported.

Methods: Eligible pts had mHSPC by conventional imaging, ECOG performance status of 0–2, and started ADT ≤12 weeks. Pts were randomized 2:1 to DARO 600 mg twice daily or placebo (PBO), each with ADT. Primary endpoint was radiological progression-free survival (rPFS). Secondary endpoints included OS, time to initiation of subsequent anticancer therapy, time to castration-resistant prostate cancer (CRPC), time to prostate-specific antigen (PSA) progression, time to pain progression, and safety.

Results: A total of 669 patients were randomized (DARO, N=446; PBO, N=223); median age was 70 y; 31% were Asian, 9.7% were Black, median PSA at baseline was 21.3 ng/mL, and 71% had high-volume mHSPC. At primary data cutoff (June 7, 2024), DARO + ADT significantly improved rPFS, reducing risk of radiological progression or death by 46% vs PBO + ADT (HR 0.54; 95% CI 0.41–0.71; P<0.0001) with consistent benefits observed across prespecified subgroups, including in high- and low-volume mHSPC, with risk reductions of 40% and 70% (HR 0.60; 95% CI 0.44–0.80 and HR 0.30; 95% CI 0.15–0.60). DARO was associated with a positive trend for OS (HR 0.81; 95% CI, 0.59–1.12) and clinical benefits across all secondary efficacy endpoints, including time to CRPC (HR 0.40; 95% CI, 0.32–0.51), time to PSA progression (HR 0.31; 95% CI 0.23–0.41), time to subsequent therapy (HR 0.40; 95% CI, 0.29–0.56), and time to pain progression (HR 0.72; 95% CI, 0.54–0.96). Incidences of TEAEs were low and similar between groups, and treatment discontinuations due to TEAEs were lower in patients receiving DARO vs PBO (6.1% vs 9.0%).

Conclusion: ARANOTE confirms the strong efficacy and favorable tolerability of DARO in mHSPC. ARASENS and ARANOTE demonstrate the benefit of DARO with and without chemotherapy, providing the option to tailor treatment, and allowing patients to live longer without progression and with minimal treatment burden.

Funding: Bayer AG and Orion Pharma

Poster #16

REDUCING HEALTH INEQUITY IN PROSTATE CANCER SCREENING: RESULTS OF AN INSTITUTION-WIDE INTERVENTION AT A SAFETY-NET HOSPITAL CARING FOR A HIGH-RISK POPULATION

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Presented By: Siddharth Marthi, MD

Introduction: The AUA, NCCN, and EAU guidelines recommend screening for prostate cancer in high-risk patients, including those with Black ancestry, beginning between the ages 40 and 45. However, because guidelines from the U.S. Preventive Services Task Force (USPSTF) do not directly address this, Black men frequently face delays in care and a greater burden of disease. Grady Memorial Hospital is a 953-bed safety-net hospital in Atlanta, GA. We sought to understand the burden of prostate cancer within the patient population we served and implement a system-wide initiative to reduce screening and access inequities.

Methods: An internal audit of all patients in the Grady Primary Care Active Patient registry was performed and identified the number of patients identifying as Black or African-American who received a screening PSA test. We then implemented an institution-wide initiative to recommend PSA screening for all male patients 40 years old or older, embedded as a reminder into the electronic medical record. This decision was made with multidisciplinary collaboration given the uniquely high-risk patient population served, in which >80% of patients identify as Black. Provider and community outreach efforts were conducted. Data was monitored to characterize rates of PSAs screening in men aged ≥40 years old prior to and after the intervention.

Results: Among Black men 40 years of age or older in the primary care registry (12,621 men), only 31.4% (3,961) of patients received a PSA test between 9/1/2021 and 9/1/2023. Following the system-wide initiative, between 9/1/2023 and 9/1/2024, 13,307 Black men aged 40 or older were in the primary care registry, of which 6,832 (51.3%) had a PSA drawn and were screened appropriately. Breakdown by age group and abnormal PSAs are included in Table 1.

Conclusion: Our early experience with an institution-wide initiative suggests that straightforward interventions including community outreach, provider education, and EMR-reminders can identify patients with elevated PSAs including in high-risk patient populations. Institutions like Grady are uniquely positioned to implement universal screening protocols and similar pilot interventions to improve this type of care delivery. Ongoing work will focus on tracking rates of identifying clinically significant disease, mitigating unintended harms of screening, and refining models of ongoing monitoring.

Funding: N/A

Age	Sept 2022 - Sept 2023						Sept 2023 - Sept 2024					
	Total		Received PSA in last 2 years		Abnormal PSA		Total		Received PSA in last 2 years		Abnormal PSA	
	Black/AA		Black/AA		Black/AA		Black/AA		Black/AA		Black/AA	
40 - 49	2,909	2,299	340	288	4	4	3,483	2,733	1,273	1,087	25	22
50 - 59	4,514	3,711	1,394	1,115	105	95	4,706	3,836	2,653	2,120	227	201
60 - 69	5,348	4,563	2,163	1,822	412	372	5,488	4,656	3,321	2,802	647	589
70 +	2,365	2,048	859	736	247	216	2,415	2,082	974	823	302	270
Total	15,136	12,621	4,756	3,961	768	687	16,092	13,307	8,221	6,832	1,201	1082

Poster #17

GENE EXPRESSION DIFFERENCES AND PATHWAY ACTIVATION BY RACE IN ERG+ PROSTATE CANCERS: IMPLICATIONS FOR EQUITABLE CANCER CARE

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Presented By: Matthew Cole

Introduction: Prostate cancer (PCa) incidence and mortality are higher in African-American (AA) men compared to White men, driven by social determinants and molecular differences. One key difference is the ERG gene (ERG+), an early molecular alteration in 50% of prostate cancers, which is twice as prevalent in White men compared to AA men. However, race-specific downstream molecular changes are not well understood. This study investigates differential gene expression and biological pathways in ERG+ PCa across a racially diverse cohort.

Methods: We used the publicly available GSE169038 dataset, analyzing whole-transcriptome profiles (22,236 transcripts) from 1079 men with clinically significant PCa (Grade Group ≥ 2) who underwent radical prostatectomy. ERG+ or ERG- status was determined via Gaussian Mixture Modeling. Differential gene expression was identified using the linear models for microarray data (Limma) package, with a false discovery rate (FDR) of 5%. Gene Set Enrichment Analysis (GSEA) was conducted using EnrichR with an FDR threshold of 10%, corrected for multiple comparisons by the Benjamini-Hochberg method.

Results: The cohort included 522 White and 557 AA men. ERG+ was more prevalent in White (40%, n=209) than AA (23%, n=127) patients ($p < 0.001$). Of 5814 differentially expressed genes in ERG+ tumors, 2605 (45%) were shared between both groups. However, 1987 (34%) were unique to White patients and 1312 (23%) to AA patients. Shared pathways involved androgen and estrogen response, fatty acid metabolism, and apoptosis ($q < 0.05$). White-specific genes were linked to the p53 pathway ($q = 0.04$), while AA-specific genes were associated with E2F target pathway ($q = 0.07$).

Conclusion: Our study identified distinct racial differences in gene expression among men with ERG+ prostate cancer. Both White and African-American (AA) patients exhibited disruptions in androgen receptor pathways, but White patients had unique alterations in the p53 cell cycle regulation pathway, while AA patients had disruptions in the E2F-RB pathway. These race-specific molecular differences may influence therapeutic responses and outcomes. As molecular testing becomes integral to cancer diagnosis and treatment, recognizing race-specific variations will be crucial for ensuring equitable and personalized care.

Funding: N/A

Poster #18

PERFORMANCE OF MULTIPARAMETRIC MRI IN ACTIVE SURVEILLANCE OF PROSTATE CANCER: MIAMI MAST TRIAL

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Presented By: Jessica Delgado, MD

Introduction: Multiparametric Magnetic Resonance Imaging (mp-MRI) is widely used to enhance the detection and selection of patients for active surveillance (AS) of prostate cancer (PCa). However, its effectiveness in monitoring PCa progression remains uncertain.

Methods: The MAST study is a single-arm interventional trial at the University of Miami evaluating serial mp-MRI and biopsy for AS of PCa. Patients underwent initial confirmatory biopsy within 18 months of diagnosis, followed by serial mp-MRI with mp-MRI-US fusion and systematic biopsies at 12, 24, and 36 months. MRI findings were reported using PIRADS, with changes categorized as worsening (increasing PIRADS) or stable (stable or decreasing PIRADS). Grade progression was defined as an upgrade from Grade Group (GG) 1 to \geq GG2 or from GG2 to \geq GG3. Volume progression was defined as >4 cores of GG1 or ≥ 3 cores of GG2 cancer. We compared the proportion of patients with grade progression based on MRI changes and performed logistic regression to evaluate whether baseline PIRADS or changes in MRI predicted grade progression.

Results: Of the 205 men enrolled, 50 had grade progression: 25 (50%) at confirmatory biopsy, 14 (28%) at 12 month, 9 (18%) at 24 months, and 2(4%) at 36 months. Grade and volume progression occurred in 5-15% of men with stable MRIs at each time point. In contrast, 74-88% of men with worsening MRIs did not show grade progression at biopsy. Baseline PIRADS (4/5 vs. 2, OR 9.64, $p=0.03$) was a significant predictor of grade progression on confirmatory biopsy, whereas changes in MRI were not significant predictors of grade progression on subsequent biopsies.

Conclusion: While mp-MRI is valuable for selecting patients for active surveillance, our findings suggest caution in relying solely on MRI for monitoring. The variability in MRI interpretation and associated false positives may lead to unnecessary biopsies. These results underscore the need for careful integration of MRI findings with clinical judgment to optimize surveillance strategies.

Funding: NA

Poster #19

RACIAL DISPARITY IN PROSTATE CANCER DIAGNOSIS: A COMPARISON OF PROSTATE BIOPSY RESULTS IN AFRICAN AMERICAN AND WHITE MEN USING AN MRI-BASED BIOPSY STRATEGY

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Presented By: Ali Kasraeian, MD, MHA, FACS

Introduction: African American (AA) men in US have increased burden of morbidity and mortality from prostate cancer (PCa). We queried our prospective database of standard and MRI fusion biopsies (tMRI/US FPB) to determine if any pre-biopsy characteristics predicted adverse tumor pathology.

Methods: Between January 2017 and April 2024, 1174 men underwent prostate biopsy (PBx) using an MRI-based algorithm. All patients underwent mpMRI of the prostate (interpreted by single radiologist using PIRADS scoring system) prior to tMRI/US FPB performed by single urologist using UroNav Fusion System. A standard 14 core PBx was performed in all cases. Prospective data was collected and analyzed.

Results: Of 1174 men, 881 presented with rise in PSA and 340 with suspicious digital rectal exam (DRE). MRI findings were as follows: PI-RADS 1-2 (418), PI-RADS 3 (367), PI-RADS 4-5 (175) and PI-RADS unassigned (212).

Of all biopsies, 713/1174 (60.7%) were positive. 490/829 (59.1%) of white men (WT) and 158/230 (68.7%) of AA men were found to have PCa ($p=0.008$). 313/829 (37.8%) of WT men and 108/230 (47%) of AA men had Gleason score (GS) of 7-10 ($p=0.01$). Age, DRE, PIRADS score, and incidence of GS 6 PCa were not significantly different by race. 219/829 (26.4%) of WT men and 42/230 (18.2%) of AA men had PSA upon presentation of 0-3.9 ng/ml ($p=0.01$). The PSA levels of greater than 10.0 ng/ml at presentation were not significantly different (139/818 (17%) of WT, versus 49/226 (21.6%) ($p=NS$)). 132/829 (16%) of WT men and 25/230 (11%) of AA men presented with PIRAD 4-5 ($p=0.06$).

Conclusion: AA men presented with PCa more often than WT men when using MRI-based algorithm. WT men presented more often with PSA levels below 4 ng/ml with a trend towards higher PIRADS scores though this did not translate in higher overall GG for these patients.

AA men had higher incidence of GG 2 or higher in addition to higher incidence of being under 65 year old at diagnosis in this dataset (AA 40% versus WT 32%, $p=0.03$).

Continuing education regarding early and appropriate screening remains a continuing concern in this contemporary dataset.

Funding: none

Poster #20

COMBINING PROSTATE CANCER VACCINE WITH IMMUNE CHECKPOINT BLOCKADE SYNERGIZES TO ELIMINATE PROSTATE CANCER

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Presented By: Gabriel Leonardo Carreno, MD

Introduction: Immunotherapy has emerged as a standard treatment for many cancers. However, the clinical benefits of immunological interventions, including tumor vaccines and immune checkpoint blockade (ICB), have shown limited efficacy in patients with prostate cancer

Methods: Our previous study showed that a bivalent prostate cancer vaccine based on adenovirus (Ad-PS2) targeting two antigens was more effective than vaccines targeting a single antigen. To enhance its therapeutic impact and maximize clinical benefits for prostate cancer patients, we combined the Ad-PS2 bivalent vaccine with immune checkpoint blockade (ICB) (anti-CTLA4 and anti-PD1). We injected mouse prostate tumor cells (5x10⁵), which co-express human PSA and PSCA antigens, subcutaneously into Balb/c mice. Additionally, we analyzed T-cell infiltration in tumors through immunohistochemical (IHC) analysis.

Results: To determine the optimal dosing and schedule for ICB, we initially administered 300 µg of anti-CTLA4 or anti-PD1 antibody per injection, per mouse, once a week for three weeks, based on existing literature. The combination of the Ad-PS2 vaccine with anti-CTLA4 resulted in complete tumor regression in mice, with all treated mice becoming tumor-free. In contrast and unexpectedly, anti-PD1, either alone or combined with the Ad-PS2 vaccine, did not provide additional benefits. Dose titration studies of anti-CTLA4 (200 and 100 µg) revealed that 100 µg was sufficient for tumor elimination, demonstrating that the Ad-PS2 vaccine synergizes with anti-CTLA4 more effectively than either agent alone. The durability of the antitumor immune response was assessed by rechallenging tumor-free mice (n = 10; 5 mice from each of two independent experiments) on day 90 with twice the original dose of tumor cells (1x10⁶), and monitoring for an additional 2 months. The mice remained healthy and tumor-free until day 128. To understand the molecular basis of tumor clearance, IHC analysis indicated that the Ad-PS2 vaccine increased CD8+ T cell infiltration at the tumor site, suggesting a robust antitumor immune response.

Conclusion: Our results demonstrate that combining the Ad-PS2 vaccine with anti-CTLA4 effectively eliminates prostate tumors in mice. This finding underscores the potential for translating this combination therapy to human patients and highlights a significant opportunity to develop a novel and effective treatment for prostate cancer.

Funding: None

Poster #21

UTILIZING THE GENOMIC PROSTATE SCORE (GPS) AS A PROGNOSTIC BIOMARKER IN PATIENTS WITH LOCALIZED PROSTATE CANCER UNDERGOING FOCAL THERAPY

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Presented By: Mahdi Mottaghi, M.D.

Introduction: Genomic tests have been used to risk-stratify prostate cancer (PCa) patients for adverse oncologic outcomes before definitive treatment, but not for focal therapy (FT). We aim to evaluate the potential utility of the Genomic Prostate Score (GPS) assay in risk-stratifying patients with localized PCa undergoing FT.

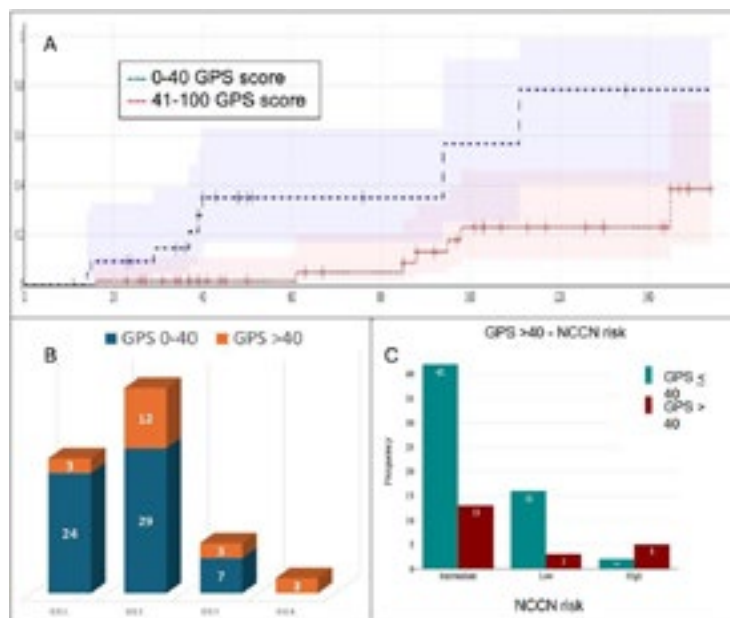
Methods: This is an IRB-approved retrospective review of a prospectively maintained database of PCa patients undergoing FT at Duke from 2005-2020. Men with localized disease, biopsy tissue available, and a minimum follow-up of 1 year were included. The primary endpoint was to determine the ability of the GPS assay performed on diagnostic biopsy to predict Treatment Failure (TxF), defined by any salvage treatment, re-treatment, metastasis, or death. The secondary endpoint was to assess whether GPS>40 was associated with higher odds of > Gleason Grade Group 2 Biopsy Recurrence (BxR).

Results: Eighty-one patients were included in the final analysis. The median (IQR) follow-up was 48 (35-98) months. The median (IQR) age, preoperative PSA, and PSA density were 74 (68-77) years, 7.4 (5.5-10) ng/ml, and 0.19 (0.14-0.22) ng/ml/ml, respectively. Of 81 patients, 19 (24%) had NCCN low-risk, 55 (68%) had intermediate-risk, and 7 (8%) had high-risk disease. The median (IQR) GPS score was 30 (24-40); 21/81 (26%) patients had GPS>40. TxF was diagnosed in 15/81 (19%); 8/15 (53%) had GPS>40. BxR was diagnosed in 10/81 (12%); 7/10 (70%) had GPS>40. On univariable analysis, GPS was significantly associated with TxF as a continuous (HR 1.07,95%CI:1.03-1.11;p<0.001) and per 20-unit increase (HR 5.43,95%CI:2.14-13.75;p<0.001). Patients with GPS>40 had a 6.2 (95%CI:2.1-18.33;p<0.001) higher likelihood of having TxF than those with GPS≤40. In multivariate analysis, the GPS was associated with TxF (HR 1.06,95%CI:1.0-1.12;p=0.012) adjusting for age, baseline PSA, Gleason Grade, and NCCN risk group. Regarding the secondary endpoint, GPS was associated with BxR as a continuous (HR 1.09,95%CI:1.03-1.16;p=0.005), as per 20-unit increase (HR 9.5,95%CI:2.18-41.46;p=0.003), and as a dichotomous (>40 vs. ≤40) (HR 5.5,95%CI:1.61-18.46;p=0.006).

Conclusion: Among localized PCa men treated with FT, the GPS assay appears to be a prognostic indicator of TF and BxR. Larger studies are needed to validate these findings.

A) TxF cumulative incidence with dichotomous GPS; B) GPS correlating with Gleason Grades; C) GPS correlating with NCCN-risk categories.

Funding: N/A



Poster #22

SAME-DAY HOSPITAL DISCHARGE TO A VIRTUAL HYBRID CARE HOTEL FOLLOWING ROBOTIC ASSISTED RADICAL PROSTATECTOMY DOES NOT ADVERSELY IMPACT PATIENT OUTCOMES

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Mayo Clinic in Florida

Presented By: Alan Perry, BA

Introduction: Historically, patients undergoing robotic-assisted radical prostatectomy (RARP) are admitted overnight. Recent literature suggests same-day discharge is safe, yet only 2% of RARPs are discharged same-day. We examined functionality of a virtual hybrid Care Hotel (CH) model consisting of daytime nursing support and continuous virtual monitoring biometric devices and clinical team personnel in patients undergoing RARP.

Methods: The Care Hotel is a hybrid-care model where patients are discharged same-day for procedures that would otherwise have resulted in an overnight hospital stay. In the CH, patients have access to an on-call nurse, paramedic team, and phone access to the Command Center (CC) for medical questions or concerns. The primary outcomes were 24-hour hospital readmission and ED visits. Other variables collected include demographics, ASA class, length of surgery, patient calls to the Command Center, and 30-day readmissions, ED visits, Clavien-Dindo complications, and patient encounters. Patient encounters were defined as any contact with a clinical staff member (in-person visit, phone call, patient portal message). Encounters were further classified as expected or unexpected.

Results: Of 174 patients discharged to the Care Hotel following RARP from 8/5/2021 to 8/25/2023, the median age was 65, 34% of patients had BMI > 30, 48% of patients were an ASA 3 or 4, and 59% of patients traveled over 100 miles to receive surgery. There was only one 24-hour readmission and two 24-hour ED visits. Thirty-day readmission rate was 0.57%, 30-day ED visit rate was 8.0%, and 30-day complication rate was 9.2%, with only one Clavien-Dindo Grade 3 or higher complication. The median number of calls patients made to the CC during their CH stay was 0, and the mean number of calls was 1.1. On average, there were two and a half total 30-day encounters, and 0.4 unexpected 30-day encounters. Thirty-day readmissions, complications, emergency department visits, and unexpected encounters were not correlated with patient demographics, ASA class, or length of surgery ($p > 0.05$).

Conclusion: Same-day discharge to the CH following RALP was safe with few 24-hour readmissions or ED visits. Patients discharged to the CH were spared an overnight hospital stay and had low rates of healthcare utilization post-operatively, likely resulting in significant cost-savings.

Funding: N/A

Table 1: Association of 30-day unexpected patient encounters with patient age, race, ethnicity, ASA score, and procedure length given as a negative binomial

	Relative Risk	Confidence Interval, lower	Confidence Interval, upper	p value
Age (years)	0.989	0.952	1.029	0.585
African American vs White race	0.836	0.326	1.888	0.686
Other/Undisclosed vs White Race	0.627	0.033	3.745	0.668
Hispanic vs non-Hispanic ethnicity	1.084	0.236	3.744	0.905
ASA 3-4 vs 1-2	0.927	0.538	1.589	0.782
Procedure Length	1.000	0.993	1.007	0.934

Poster #23

PATIENT PERSPECTIVES ON ATTRIBUTES OF SINGLE-PORT VERSUS MULTI-PORT ROBOTIC-ASSISTED UROLOGIC ONCOLOGY PROCEDURES—A SURVEY-BASED ANALYSIS

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Presented By: Rahul Nalluri, BS

Introduction: With the advent of single-port (SP) robotic surgery for urologic oncology procedures, there seems to be promise for a future where patients experience less post-op pain, shorter hospital stays and better cosmetic outcomes. Research to investigate the relative importance given by patients to cosmetic outcomes compared to other factors (cancer control, operative time, and cost) has not been performed yet in the field of robotic urology, and this present study aims to bridge that knowledge gap.

Methods: A Likert scale-style survey was provided to patients (18 or older) who were undergoing robotic surgery for bladder, prostate or renal tumors. A single surgeon's consecutive consenting patients (n=33) were sampled at a single clinic. The primary outcome measured was patient perspectives on SP and Xi robotic surgery with a focus on where cosmetic outcomes lie on their list of reasons for choosing one or the other surgery.

Results: For data analysis, the Likert scale categories were replaced with corresponding numbers (1 = least to 5 = most) for each response. When patients were asked about the importance of cosmetic outcomes in choosing the SP robot, the mean response was 1.85 ± 1.33 . Additionally, many patients didn't think incision size or number would matter more even if all other factors were the same between the SP and Xi robot (incision size, 2.48 ± 1.56 ; incision number, 2.45 ± 1.25). When the patients were asked to rank the relative importance of different surgical outcomes, cancer control was regarded as the most important factor (4.48 ± 0.83) and appearance was the least important factor (1.73 ± 0.91). Appearance was also of significantly lower importance than risk of complications (alpha, 0.05; p-value << 0.01), cost of surgery (alpha, 0.05; p-value = 0.04) and pain (alpha, 0.05; p-value << 0.01).

Conclusion: Together, these results suggest that cosmetic outcomes are not nearly as important as other surgical factors such as cancer control, risk of complications, cost, and pain. Consequently, using the SP robot over the Xi for cosmetic outcomes may not be in the best interest of the patient, and more research needs to be done to establish other post-operative benefits of the SP robot.

Funding: N/A

Poster #24

OMISSION OF PELVIC LYMPH NODE DISSECTION; A PET/CT SUPPLEMENTED APPROACH

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Presented By: Abhi Moolupuri, MD

Introduction: The National Comprehensive Cancer Network panel recommends considering pelvic lymph node dissection (PLND) in favorable intermediate risk localized prostate cancer and performing PLND in unfavorable intermediate risk and subsequent risk tiers. The Memorial Sloan Kettering Cancer Center Nomogram considers characteristics such as; pretreatment PSA (Prostate Specific Antigen), clinical stage, and Gleason sum, and is the most widely accepted preoperative nomogram tool for preoperative LNM suspicion. The NCCN recommended 2% nomogram threshold, PLND could be avoided in 22.3% of patients with missed LNM in 3%. The favorable detection of micro-metastatic disease via PSMA/PET imaging offers opportunity to contemporize pre-operative LNM suspicion.

Methods: The study design is a retrospective analysis of patients with clinically localized prostate cancer confirmed on magnetic resonance-ultrasound cognitive fusion biopsy. Patients with localized prostate cancer treated with radical prostatectomy with PLND, with preoperative PSMA PET imaging were selected. Patients with evidence of metastasis on nuclear imaging were excluded. Standard Chi-Square analyses were performed. Diagnostic test descriptors, namely negative predictive value, negative likelihood ratio, and overall concordance investigate the diagnostic accuracy of PET/CT. Due to the smaller sample size of separate NCCN risk strata, concordance values were also calculated to identify trends toward comparative significance. Each patient was also assessed using the MSKCC nomogram and assigned a calculated risk.

Results: Using only PSMA PET for predictive assessment of nodal metastases yielded an overall sensitivity of 85.7% and specificity of 87.1%. PPV was 33.3% (6/18), NPV was 98.8% (81/82). NLR was 0.17 and showed a concordance rate of 0.87. The sole use of the MSKCC nomogram for predictive risk assessment yields an overall sensitivity of 100% and specificity of 28.7%. The PPV was 9.5%, NPV was 100%. The NLR was 0, and concordance rate of 0.34. Standard Chi-square favors PSMA/PET with Pearson chi-square value of 23 ($p < 0.001$) compared to MSKCC value of 2.019 ($P = 0.09$)

Conclusion: In a head-to-head comparison of the same cohort, use of PSMA PET/CT imaging is characterized by a similar NPV/NLR but shows stronger concordance with a statistically significant relationship. The higher concordance along with strong diagnostic qualities of preoperative PSMA PET/CT offers a chance for a more individualized approach to PLND.

Funding: N/A

Poster #25

ELUCIDATING THE ROLE OF DNA METHYLATION IN HIGHLY METASTATIC DOCETAXEL-RESISTANT PROSTATE CANCER: AN IN VITRO STUDY

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Presented By: Kenneth Omar Cintron, MD

Introduction: Prostate cancer (PCa) is the most frequently diagnosed cancer among Hispanic/Latino (H/L) men in the US. Although PCa is viewed as an indolent disease, some cases eventually progress to metastatic castration-resistant prostate cancer (mCRPC) which has a poor prognosis and high mortality. Antineoplastic agents like docetaxel are some of the indicated treatments for mCRPC; however, in some cases, resistance to this drug is also acquired. DNA methylation has been associated with PCa carcinogenesis. Hypermethylation of tumor suppressor genes in PCa can contribute to both androgen and chemotherapy resistance. This study aims to evaluate the role of DNA methylation in docetaxel resistance in a model of highly metastatic PCa.

Methods: Different biological endpoints were evaluated on docetaxel-resistant (DR) PCa cell lines (PC-3 and 22Rv1) in the presence of 5-Azacytidine (5-AZA), a DNA methyltransferase 1 inhibitor. PC-3 cells served as a model for highly mCRPC. To evaluate the effects of 5-AZA in the proliferative capacity of parental and DR PCa cells, the MTT assay was used. Expression changes in AR, ARv7, MDR1, and DNMT1 were evaluated through Western blot. Effects of 5-AZA on cell invasion and migration capacity were evaluated using Cell Invasion and Wound Healing assays.

Results: 5-AZA reduced cell viability in a concentration-dependent manner in all cell lines. From these results, non-toxic concentrations of 5-AZA (1 and 2 μ M) were selected for further experiments. Protein expression changes were detected for MDR1 in PC-3-DR cells, where a reduced expression was observed at 1 μ M of 5-AZA. 5-AZA reduced invasion capacity in PC-3 parental cells but not in PC-3-DR cells. Significant differences were detected when comparing PC-3 parental and DR cells at 2 μ M 5-AZA ($p < 0.001$). For 22Rv1, 5-AZA reduced cell invasion in parental cells and increased the invasion capacity of 22Rv1-DR cells ($p < 0.05$). 5-AZA reduced the migration capacity of PC-3-DR cells, regardless of the concentration used at 72 hours.

Conclusion: DNA methylation potentially regulates cell migration in our model of DR highly mCRPC. Identifying in vitro markers related to DNA methylation utilizing different DNA inhibitors could provide insight into potential therapy resistance in tumors and contribute to the discovery potential therapeutic targets. .

Funding: Sponsored by U54 PHSU-MCC Grants: U54CA163071 U54CA163068

Poster #26

DNA REPAIR CAPACITY IN METASTATIC CASTRATION-RESISTANT PROSTATE CANCER PATIENTS USING LYMPHOCYTES AS SURROGATE MARKERS

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Presented By: Kenneth Omar Cintron, MD

Introduction: Prostate cancer (PCa) accounts for 22% of the new cases diagnosed in Hispanic men in the US. In 2018, PCa incidence (145.2/100,000) and mortality (18.2/100,000) were the highest in cancer among men in Puerto Rico men, a severely understudied population. Metastatic castration-resistant prostate cancer (mCRPC) remains among the most frequent causes of cancer-related mortality in males. Patients with mCRPC become progressively resistant to androgen deprivation therapy, and the median survival for these patients is around two years. This study aimed to evaluate for the first time the DRC levels in Puerto Rican Hispanic/Latino (PR H/L) men with mCRPC (n=16) and establish comparisons with controls and patients with indolent (n=24) and aggressive (n=31) PCa.

Methods: Lymphocytes were isolated from blood samples of PCa patients (n=71) and controls (n=25). DRC levels through the NER pathway were measured with the CometChip assay. Clinicopathological variables were analyzed for all participants. PCa cases were stratified by Gleason Score (GS): GS6 (n=10), GS7 (n=22), GS \geq 8 (n=22), and mCRPC.

Results: Mean values at diagnosis were: age=67, PSA=9.24 ng/ml, and BMI:32 Significant differences were found when comparing the DRC levels of the controls with any of the four PCa patient groups ($p<0.0001$, KW test). Specifically, the mean for the GS6 was 6.92%, while for the GS7, it was 8.70%. For the GS \geq 8 group, the mean DRC value was 7.78%, and for the mCRPC group, it was 6.65%. The median DRC values were 16.47%, 6.96%, 7.08%, 6.84%, and 5.37% for controls, GS6, GS7, GS \geq 8, and mCRPC patients, respectively. mCRPC patients had the lowest mean and median DRC values among all patient groups ($p<0.0001$, KW test).

Conclusion: This is the first study in the world in which a functional assay has been used to analyze the DRC levels of mCRPC patients. Our results represent an innovative step in developing a blood-based screening test for PCa based on DRC levels. They also aim to significantly advance research in the lethal PCa and reduce the burden of lethal PCa health disparities in PR H/L men.

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Poster #27

ASSESSING MOLECULAR HETEROGENEITY OF PROSTATE CANCER BIOPSY SAMPLING: INSIGHTS FROM THE MAST TRIAL

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Presented By: Mary Rostom, MD

Introduction: Due to prostate cancer heterogeneity, biopsy sampling often undersamples different tumor foci. This can lead to inaccurate molecular classifications of tumor biology on tissue-based prognostic tests, impacting treatment in localized prostate cancer. Herein, we evaluate the degree of variability in transcriptomic profiles when assessing genomic profiles from MRI guided versus template biopsy using the Decipher GRID platform.

Methods: A total of 205 men enrolled in the Miami MRI selection for Active Surveillance versus Treatment (MAST) trial, from which 408 biopsy samples from 159 patients with successful genomic profiling were used in this study. All biopsy cores with successful gene expression profiling were categorized by mpMRI targeted (149 samples) or template (259 samples) sampling. Three main prognostic signatures Decipher genomic classifier (DGC), derived cell cycle progression (CCP), and derived Genomic Prostate score (GPS) were used to assess the variation in genomic risk between MRI targeted and template cores.

Results: Using the main genomic signatures in unpaired analysis (comparing all targeted and template biopsies), targeted lesions had higher scores as compared to the random biopsies, except for Decipher score ($p=0.105$). However, in the paired analysis (only including targets and templates from the same patient), we saw no difference between the groups in all three of the signatures. In the subset of patients with GG1, there was no difference between random and targeted biopsies in paired analysis.

Among MRI targeted biopsy cores, PIRADS level was correlated to Decipher and CCP scores with higher PIRADS levels resulting in higher genomic scores ($p=0.007$ and 0.002 respectively). However, when restricting to a subgroup of patients with only GG1 cancer, there was no longer an association between PIRADS and genomic score. Higher concordance of DGC scores between visible and non-visible lesions were observed in the low-risk group.

Conclusion: mpMRI sampling showed higher genomic scores compared to template sampling. While we see correlation between PIRADS scores and genomic scores, this relationship appears to be driven by grade. Among the subgroup of men with GG1 cores, we found no association between PIRADS and genomic scores. These findings further study to truly understand the impact of MRI targeting on genomic risk assessment among AS patients.

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Poster #28

SURVIVAL OUTCOMES OF RADICAL PROSTATECTOMY VERSUS DOSE-ESCALATED RADIATION WITH ADT IN NODE-POSITIVE PROSTATE CANCER

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Presented By: Arjun Pon Avudaiappan, MD

Introduction: Over the years, prostate-specific antigen (PSA) screening and advancements in imaging helped in the early diagnosis of prostate cancer (CaP) and a decline in the incidence of metastatic prostate carcinoma. However, 13% of patients still have clinically node-positive (cN+) prostate cancer (CaP) at the time of diagnosis. cN+ CaP has been considered to be associated with a higher likelihood of systemic disease, and the use of radical prostatectomy (RP) has been limited. In the literature, only a few studies evaluate the effectiveness of RP in treating cN+ CaP. In this study, we utilized the National Cancer Database to compare the survival outcomes in patients treated with radical prostatectomy versus dose-escalated radiation (DER) with androgen deprivation therapy (ADT).

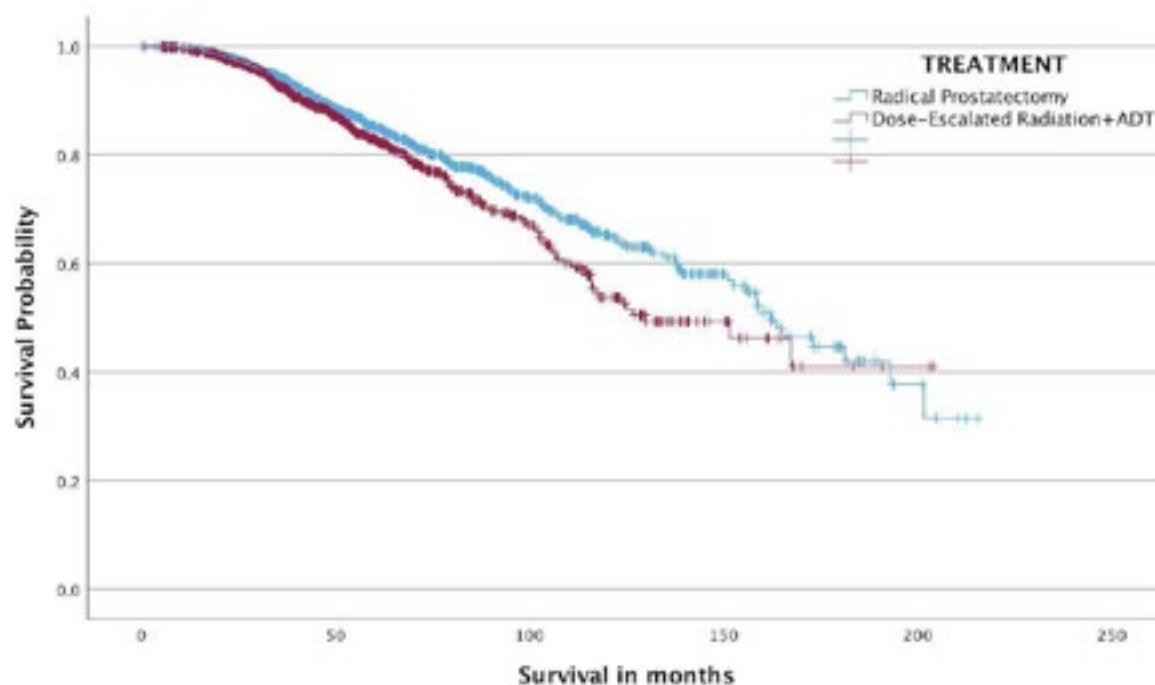
Methods: Our study focused on individuals aged 60-75 years diagnosed with cN+ prostate cancer (cT1-3N1M0) and adenocarcinoma between 2004 and 2019. These patients were categorized into two primary cohorts: the RP cohort, which included patients who underwent RP, and the DER cohort, which included patients who received both radiation ≥ 79.2 Gy and ADT. We performed a propensity-matching with age, race, ethnicity, comorbidity index, clinical T stage, Gleason pattern, and a Kaplan-Meier analysis to compare both cohorts' overall survival (OS).

Results: Among 18788 patients with cN+ CaP, 2990 patients met our selection criteria. 1482 (49.5%) were treated with RP and 1508 (50.5%) received DER+ADT. In the RP cohort, 446 (30.1%), 265 (17.9%), and 105 (7.1%), had multimodal treatment with ADT, ADT+Radiation, and radiation respectively, while 666 (44.9%) had no adjuvant treatment. After propensity-matching, the OS of patients undergoing RP with or without salvage therapy and DER+ADT was 162.1 months and 129.7 months, respectively ($p < 0.05$). The multivariate Cox regression showed an increased mortality risk with DER+ADT compared to RP with or without salvage therapy (Hazard Ratio=1.2 (95% CI, 1.1-1.5) ($p < 0.05$)).

Conclusion: In our study on cN+ CaP, RP with or without salvage therapy had better OS than DER+ADT, suggesting RP may have survival benefits in carefully selected individuals. Therefore, a multimodal approach incorporating RP as an initial treatment followed by salvage radiation and ADT may improve survival outcomes.

Figure 1: Comparison of Overall Survival between Radical Prostatectomy and Dose-Escalated Radiation with ADT in Node +ve Prostate Cancer

Funding: N/A



Poster #29

EXTENDED CATHETERIZATION WITH INFLATABLE PENILE PROSTHESIS: NO INCREASED RISK OF EROSION, INFECTION, OR MALFUNCTION

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Presented By: Nicklas Alexander Sarantos, MD

Introduction: Much like the approach taken with artificial urinary sphincters (AUS), many Urologic surgeons caution against prolonged catheterization in patients with an indwelling inflatable penile prosthesis (IPP), citing concerns of an increased risk of infection or erosion into the urethra. Despite the frequent coexistence of IPPs and AUSs, there is limited data on the risk of IPP erosion, urethral erosion, or infection following extended catheterization. This study aims to retrospectively assess the incidence of post-operative IPP erosion or infection in patients who had their AUS removed and then subsequently underwent prolonged catheterization.

Methods: 151 patients who underwent AUS removal surgery between March 2015 and September 2024 were identified retrospectively through our institution's electronic health record. Records were reviewed to determine whether these patients had a concurrent IPP at the time of AUS removal. For those with an IPP, prolonged catheterization after AUS removal was defined as >10 days of post-operative catheterization. Charts were then reviewed for IPP-related complications, including erosion, infection, or malfunction following AUS removal.

Results: Of the 151 patients who underwent AUS removal surgery, 13 were identified with an IPP at the time of AUS removal. Following prolonged catheterization, 11/13 (~85%) had no IPP related complications within a one-year post-operative period. No patients had complications related to their IPP and catheter. However, 2/13 (~15%) had their IPP removed within one year for reasons not related to urethral trauma, device infection or erosion. Both explants were done secondary to the desire to prioritize AUS durability in the setting of a fragile urethra.

Conclusion: In patients with an IPP following AUS removal, prolonged catheterization is not associated with urethral or device erosion, infection, or malfunction in the post-operative period of up to one year. IPP safety in the context of prolonged catheterization after AUS removal may also be applicable to other procedures requiring extended catheterization, such as urethroplasty and prostatectomy.

Funding: N/A

Poster #30

EVALUATING LONG-TERM QUALITY OF LIFE SATISFACTION SCORES IN PATIENTS UNDERGOING PELVIC EXENTERATION FOR NON-ONCOLOGIC INDICATIONS

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Presented By: Thomas Edward Schroeder, MD

Introduction: Pelvic exenteration (PelvEx) is a radical surgical resection often limited to the management of primary or recurrent malignancies or for complications from initial surgery. Historically, outcomes of PelvEx had significant morbidity and mortality for the patient. The advent of systemic therapies has prolonged survival and made PelvEx a viable strategy for management of complications and sequelae from prior cancer treatments. We set out to evaluate the long-term quality of life impact on patients undergoing PelvEx at a single high volume surgical hospital composed of a multi-disciplinary team of urologists, colorectal surgeons, orthopedic surgeons, and gynecologic oncologists.

Methods: We queried our electronic health record for patients who underwent PelvEx from 1/1/2013 to 12/31/2023. Patients were included if the primary surgeon was part of our reconstructive urology team. Patient charts were reviewed and identified as undergoing a total pelvic exenteration (bladder and rectum/anus) or anterior pelvic exenteration (bladder +/- reproductive organs). Follow-up visits in our outpatient urology clinic were reviewed along with Short Form-12 (SF-12) questionnaires administered at clinic visits.

Results: A total of 131 patients were identified as having undergone pelvic exenteration for non-oncologic indications during this time period (102 anterior, 29 total). 88 patients were seen in clinic within the last two years (1/1/2022) and 67 had SF-12 forms completed following surgery. The median time elapsed from surgery to clinic visit was 39.5 months. The median post-op SF-12 physical composite score was 37.6 (19.3-59.9) and mental composite score was 55.1 (18.6-66). Pre-op SF-12 scores were available for 15 patients with a median of 27.8 (17-49.3) for the physical composite score and 48.3 (26.5-61.9) for the mental composite score. 18 patients were deceased at the time of chart review with a median of 23.9 months (1.5-62.5) of life after surgery.

Conclusion: On average, patients undergoing PelvEx had improved physical and mental outcomes on SF-12 questionnaires comparative to generalized pre-operative scores. Most patients were alive and attending follow-up appointments and those who were deceased had median life spans approaching 2 years after surgery. Future research directions include highlighting and identifying reasons for the significant improvement in the physical and mental composite on the SF-12 scores.

Funding: N/A

Long-term follow-up for patients undergoing pelvic exenteration (n=131)

Median age at time of follow-up	75.4 (46.6-87.5)
Patients seen at follow-up	78
Median time from surgery to follow-up (months)	39.5 (1.0-123)
Median pre-op SF-12 Physical composite (n=15)	27.8 (17-49.3)
Median post-op SF-12 Physical composite (n=67)	37.6 (19.3-59.9)
Median pre-op SF-12 Mental Composite (n=15)	48.3 (26.5-61.9)
Median post-op SF-12 Mental Composite (n=67)	55.1 (18.6-66)
Patients deceased	18
-Median life from date of surgery to date of death (months)	23.9 (1.5-62.5)
Patients following up locally or lost to follow-up	41

Poster #31

OPTILUME: PACLITAXEL-COATED BALLOON THERAPY FOR FEMALE URETHRAL STRICTURES

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Presented By: Andres Elovic, BS, MD

Introduction: Urethral strictures, characterized by scarring of the urethral epithelium with or without spongiofibrosis, narrow the urethral lumen and disrupt urination, potentially leading to obstructed urine flow, urinary tract infections, and bladder dysfunction. While rare in females (0.1-1% prevalence), diagnosing urethral strictures can be challenging due to symptom overlap with other functional causes of urinary obstruction. Common etiologies include idiopathic (51.3%), followed by iatrogenic (32.8%), inflammatory and infectious (9.2%), and traumatic causes (6.6%).

Initial treatment typically involves non-surgical methods such as progressive urethral dilation, which has a limited success rate of 41.25%, and with recurrence necessitating further intervention in over 50% of cases. Surgical options, including urethroplasty with oral mucosal grafts, vaginal flaps or combined, offer higher success rates (85-90%) but require longer recovery time and hospital stay, hence considered second line. We evaluated the use of Optilume, a paclitaxel-coated balloon urethral dilator, in treating female urethral strictures.

Methods: This case series evaluates the efficacy and safety of five female patients who received Optilume for the treatment of recurrent urethral strictures after failed dilations at Mount Sinai Medical Center from October 2022 to December 2023. The primary outcome was the need for re-intervention. Secondary outcomes included continence rate, subjective response, and complications post-dilation.

Results: Among five patients, three (60%) did not require re-intervention. Four patients (80%) were continent post-dilation. Four patients had a subjective improvement in urinary symptoms. Two patients required re-intervention, one underwent a repeat Optilume dilation at 9 months and the other underwent urethroplasty with buccal mucosal graft at 7 weeks. Complications post-dilation included urinary tract infections (n= 2), stricture recurrence (n=1), and urethral-vaginal fistula (n=1).

Conclusion: This case series highlights the potential of Optilume as a minimally invasive alternative in managing recurrent female urethral strictures, particularly in patients with prior treatment failures. Limitations include sample size, retrospective nature, and lack of a control arm. Analysis of a larger data set or a prospective study is warranted to better define the benefit of this novel approach as a therapeutic option in female strictures.

Funding: N/A

Table 1: Outcome of Optilume Dilation

Patient	Stricture Etiology	Prior Intervention	Continence Post-Dilation	Symptoms Post-Dilation	Symptoms Improvement Post-Dilation (Month)	Complications Post-Dilation
1	Idiopathic	Yes	Yes	None	N/A	Return of stricture
2	Iatrogenic	Yes	Yes	None	N/A	UTI
3	Idiopathic	Yes	Yes	Improved	N/A	UTI
4	Traumatic	Yes	No	Improved	1 month after	Urethral vaginal fistula
5	Idiopathic	Yes	Yes	Improved	4 months after	None

Poster #32

SINGLE PORT ROBOTIC URETERAL-ILEAL ANASTOMOSIS STRICTURE REPAIR: DIFFERENCES IN APPROACH AND TECHNIQUE

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1USF Urology, 2Orlando Health, 3FIU SOM

Presented By: Audra Garrigan, MD

Introduction: The objective of this study is to present a series of 16 cases utilizing single-port robot-assisted repair for ureteroenteric anastomosis stricture (UES). To our knowledge this is the first case series recorded detailing successful single-port UES revision.

Methods: Retrospective review of patients undergoing single-port robotic revision of ureteroenteric stricture following radical cystectomy with urinary diversion at our institutions with a single surgeon from September 2020 through July 2024 was performed. Patient demographics and perioperative outcomes were assessed.

Results: The study consisted of three bilateral ureteroenteric strictures and thirteen unilateral strictures, more commonly on left. Stricture length averaged 2.2cm on the left and 2.1cm on the right. Surgeries were performed by a single surgeon using da Vinci SP surgical system. All procedures were successfully completed. Type of stricture repair included excision and primary anastomosis with Bricker or Wallace reconstruction (EPA) or Heineke-Mikulicz (HM) repair, although one case involved the necessity of revision ileocalycostomy. Two of the sixteen cases were converted from robotic to open due to extensive adhesions. The average procedure length was 265 minutes (148 – 440). Length of stay ranged from 0-46 days, averaging 4.9 days. There were five postoperative complications encountered including two seromas, two incisional hernias, and an episode of urosepsis. Pre- and postoperative changes in creatinine level ranged from -0.26 to 0.3.

Conclusion: No patients were readmitted following initial surgical discharge. All patients have been returned for follow-up; none have required repeat intervention.

Funding: n/a

Case #	Type of Repair	Procedure Duration (Minutes)	Length of Stay (Days)	Postoperative complications	Postoperative Creatinine	Change in Creatinine	Days of Follow Up
1	EPA	314	4	N	1.9	0	29
2	EPA	257	1	N	1	-0.03	35
3	EPA - BRICKER	238	1	N	1.39	-0.26	149
4	EPA - WALLACE	292	2	N	1.36	0.26	12
5	EPA - BRICKER	353	1	N	2.79	-0.23	23
6	EPA - BRICKER	280	1	N	1.33	0	11
7	EPA - BRICKER	289	1	N	2.07	0.22	15
8	EPA	194	1	N	1.8	-0.10	21
9	EPA - WALLACE	163	3	N	0.8	-0.50	90
10	HM	148	2	Urosepsis, seroma	0.78	-0.18	1372
11	EPA	262	2	Seroma, incisional hernia	1.6	-0.80	161
12	EPA - WALLACE	282	1	N	2.5	-0.10	174
13	EPA - WALLACE	303	0	N	2.3	0.20	118
14	EPA - BRICKER	264	3	converted to open - solid dehiscence (packed)	2.5	0.30	412
15	EPA - WALLACE	192	8	converted to open - appendectomy during due to adhesion	0.85	-0.05	1015
16	EPA - ileocolostomy	449	46	N	2.15	0.11	487

Poster #33

UNBUCKLING: AN EFFECTIVE SOLUTION TO ADDRESS CUFF-RELATED CHALLENGES IN URETHRAL INSTRUMENTATION WITH AN ARTIFICIAL URINARY SPHINCTER

Hasan Jhaveri, MD, Brent Nose, MD, Mariela Martinez-Rivera, MD, Jordan Foreman, MD, Aaron Lentz, MD

Duke University Department of Urology

Presented By: Hasan F. Jhaveri, MD

Introduction: Overall, there is limited in vivo data on the safe size of instruments that can pass through an artificial urinary sphincter (AUS) cuff. Endoscopic instruments up to 21 French appear to be safe with the 4.5 cm cuff, which is the most common size for AUS. Smaller cuffs or larger instruments may require 'uncoupling' or 'unbuckling' to reduce the risk of urethral erosion and prolong device lifespan. In our series of patients who underwent larger urethral instrumentation with pre-existing AUS, we demonstrate that unbuckling the AUS does not affect device longevity and effectively prevents urethral erosion.

Methods: We conducted a retrospective review of all patients within the Duke University Health System who underwent AUS unbuckling. Using the Epic Clarity database, we identified patients with pre-existing devices that were unbuckled during their endoscopic procedures. We analyzed patient demographics, device longevity, and the rate of erosion following instrumentation.

Results: Five patients met our inclusion criteria and were selected for chart review. The average age of the cohort was 74.6 years, ranging from 63 to 85 years. All devices were reactivated following unbuckling. Three patients still have their devices in place. One patient's device was removed due to erosion 16.16 years after unbuckling, with a device age of 17.10 years at the time of erosion. Another patient's device was removed and replaced due to subcuff atrophy 43 days after unbuckling, though no erosion was observed during replacement.

Conclusion: In our limited series, AUS cuff unbuckling appears to be a safe and effective strategy when large-caliber urethral instrumentation is required.

Funding: N/A

Poster #34

THIRTY-DAY OUTCOMES OF NON-ONCOLOGICAL TOTAL PELVIC EXENTERATION: REESTABLISHING EXPECTATIONS

Thomas Schroeder, MD, Mariela Martinez-Rivera, MD, MS, Diego Schaps, MD, MPH, Logan Grimaud, MD, Brent Nosé, MD, Kiran Sury, MD, Matthew Salvino, BSE, Christopher Manyth, MD, Andrew Peterson, MD, MPH

Duke University Health System

Presented By: Thomas Edward Schroeder, MD

Introduction: Pelvic exenteration (PelvEx) is a radical surgical resection often limited in management of primary or recurrent malignancies. The advent of systemic therapies has prolonged survival and made PelvEx a viable strategy for management of complications and sequelae from prior cancer treatments. Historically, outcomes of PelvEx had significant morbidity and mortality. In this study, we evaluated short-term outcomes of patients at a single high-volume center undergoing PelvEx.

Methods: We queried our electronic medical record system for all patients undergoing PelvEx by a multidisciplinary team of surgeons at a single high-volume quaternary hospital from 5/11/2016-12/31/2023. Surgeries were stratified as total pelvic exenteration (bladder and rectum/anus) or anterior pelvic exenteration (bladder +/- reproductive organs). Demographic variables and patient history were collected along with institutional NSQIP data (30-day outcomes) and collected data (90-day outcomes) for patients undergoing PelvEx.

Results: A total of 70 patients were identified. 63 patients underwent anterior PelvEx (90%) and seven underwent total PelvEx (10%). The median age at time of surgery was 71.1 and the majority were male (80%) and white (84%). The most common indication for surgery was osteomyelitis of the pubic bone from prostate to pubic symphysis urinary fistula (54%). Most patients had a history of prostate cancer (79%) with 53% previously undergoing prostatectomy and 87% previously undergoing radiotherapy treatment. Pre-operative hyperbaric oxygen therapy (HBO) was administered to 57% of patients. Most patients suffered Clavien Dindo Grade IIa or Grade IIb complications with blood transfusion the most common at 30 days and urinary tract infection the most common at 90 days (21%). There was a 7% rate of major complications. These included: fascial dehiscence (n=1), unplanned intubation (n=2), myocardial infarction (n=2), cardiac arrest (n=1) and death (n=1). Eighty three percent of patients were discharged home from the hospital after recovery with an average length of stay of 7 days. Overall, there was a 30-day readmission rate of 19%.

Conclusion: This study demonstrates that although PelvEx may be viewed as a high-risk procedure, review of contemporary data indicates improved patient outcomes. Further research should seek to assess what variables may be associated with improvement in overall post-surgical outcomes after PelvEx.

Funding: N/A

Table: Patients Undergoing Total and Anterior Pelvic Exenteration (n=70)

Age (median)	71
Gender, n (%)	
Male	56 (80%)
Female	14 (20%)
Race, n (%)	
White	59 (84%)
Black	9 (13%)
Not reported	2 (3%)
Median BMI	26.2
Indication for Operation, n (%)	
Osteomyelitis	38 (54%)
End-stage Bladder	13 (19%)
Neurogenic Bladder	8 (11%)
Radiation Cystitis	7 (10%)
Infection	4 (6%)
Cysto-Vaginal	2 (3%)
Past Medical History, n (%)	
Cancer	62 (89%)
Prior Prostatectomy	37 (57%)
Prior Radiation Therapy	61 (87%)
Prior chemotherapy	35 (50%)
Arthritis	31 (44%)
Diabetes Mellitus	14 (20%)
Pre-operative Hyperbaric Oxygen therapy	40 (57%)
30 Day Outcomes	
Blood transfusion	11 (16%)
Urinary Tract Infection	5 (7%)
Respiratory Infection	2 (3%)
Unplanned Intubation	2 (3%)
Myocardial Infarction	1 (1%)
Fascial Dehiscence	1 (1%)
Cardiac Arrest	1 (1%)
Death	1 (1%)
90 Day Outcomes	
Urinary Tract Infection	14 (20%)
Bleed	14 (20%)
Average Length of stay (days)	7
Discharged to home	58 (83%)
Readmission within 30 days	13 (19%)
Refused to procedure	9 (13%)

Poster #35

ANALYZING THE IMPACT OF STRESS TESTING ON ARTIFICIAL URINARY SPHINCTERS

Matthew Salvino¹, Andrew Peterson, MD, MPH², Logan Grimaud, MD², Thoams Schroeder, MD²

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Presented By: Matthew Salvino

Introduction: Stress urinary incontinence (SUI) is a prevalent urologic issue that affects both males and females, significantly impairing quality of life and impacting social, emotional, and physical well-being. SUI in males is often associated with aging though among men, radical prostatectomy is the most common cause of male SUI. For men seeking to manage their SUI they often turn to surgical intervention such as placement of an artificial urinary sphincter (AUS). Though effective in management of SUI, these devices have been theorized to lose their elastic pressure regulation with use. We set out to mimic daily use of an AUS and assess the stress response on the device.

Methods: We utilized pressure regulating balloons (PRBs) from 6 explanted AUS devices and 1 new, unused AUS explanted from 2015 to 2023. The age of the devices was: 0 years (unused), 2.4 years, 5.7 years, 7.4 years, 9.7 years, 12.3 years, and 17.6 years. The PRBs were analyzed using an RSA-G2 Dynamic Mechanical Analyzer that placed the expected strain of the PRB expanding from rest to being filled with fluid (23cc to 26cc) at a rate of 0.5 mm/s. They were held at that strain for 2 minutes and then returned to rest. These PRBs were tested 5 times at 2.5 hour intervals to mimic daily urination habits.

Results: Stress-time curves of the 7 tested PRB specimens demonstrated an initial spike consistent with the applied stress to reach the predetermined strain in the specimen. After the initial peak, there was a rapid decrease in stress, exhibiting a viscoelastic response to the stress. Over time the material reached a steady state with no significant decreases in stress over time. This behavior was evident in all 7 tested PRBs at every interval the PRBs were tested.

Conclusion: Stress softening has previously been theorized as a mechanism contributing to the loss of PRB pressure with device age. Our analysis found no significant effect of time (over a day) on stress with no significant device age-time interaction. Further research could evaluate this phenomenon with the chronic use of PRBs.

Funding: N/A

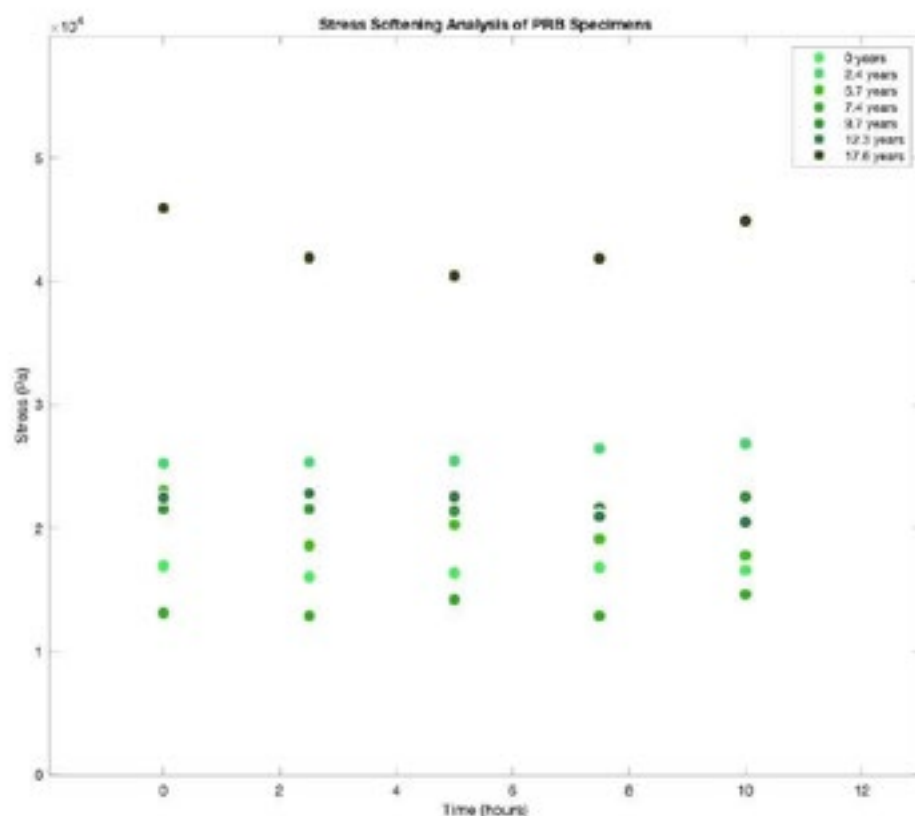


Figure: Stress Softening Analysis of pressure regulated balloons (PRBs). 7 PRBs were elongated to a strain of 0.842 at 2.5-h intervals for 5 cycles. The resultant stress, following 2 minutes in tension at the predefined strain was plotted above.

Poster #36

IRRISEPT AT THE TIME OF IMPLANTATION OF INFLATABLE PENILE PROSTHESES REDUCES CULTURE POSITIVITY AT THE TIME OF REMOVAL AND REPLACEMENT SURGERY FOR NON-INFECTED IMPLANTS

Nicklas Sarantos, MD, Brent Nose, MD, Logan Grimaud, MD, Kiran Sury, MD, Thomas Schroeder, MD, Jordan Foreman, MD, Aaron Lentz, MD, FACS

Duke University Department of Urology

Presented By: Nicklas Alexander Sarantos, MD

Introduction: The inflatable penile prosthesis provides durable management for erectile dysfunction with high rates of patient satisfaction; however, the device is still limited by a mechanical lifespan and the risk of infection. Multiple studies have examined the presence of biofilm at the time of revision surgery with reported rates of positivity being as high as 80%. The advent of antiseptic irrigation, notably Irrisept™ (0.05% chlorhexidine gluconate), has potentially introduced a paradigm shift that may alter the rate of culture positivity during revision surgery. This study aims to evaluate the antibiogram of organisms isolated during penile prosthesis revision surgery before and after the implementation of Irrisept™ irrigation during the device's original implantation.

Methods: Data was collected using our institution's prospectively managed database of penile prosthesis surgery. All 845 penile prosthesis cases from the start of Irrisept use in November 2019 to January 2024 were reviewed. Of the 194 removal and replacement cases for non-infectious indications, operative details from the initial implantation and culture data from the time of revision were available for 72 cases. Of these, 22 had undergone original implantation with use of Irrisept irrigation and 50 were performed without Irrisept use at the time of original implantation.

Results: The patient demographics before and after the use of Irrisept were similar, with average ages being 69 and 65 in the pre and post-Irrisept cohorts, respectively. A higher proportion of patients in the pre-Irrisept cohort did have devices with Inhibizone (54% versus 32%) and increased rates of diabetes (36% versus 32%); however, tobacco use was higher in the post-Irrisept™ population (50% versus 38%). Notably, the percent of cases with positive swab cultures at the time of removal and replacement were 9% in the post-Irrisept group compared to 22% in cases where Irrisept™ was not used.

Conclusion: The use of Irrisept™ antiseptic irrigation at the time of implantation is associated with a decreased rate of culture positivity at the time of removal and replacement for non-infected inflatable penile prostheses.

Funding: N/A

Poster #37

CHARACTERISTICS OF GENITOURINARY TRAUMAS IN AN ACADEMIC LEVEL 1 TRAUMA CENTER, 2022 – 2024

Maxwell Richardson, BA, Myles Morgan, BS, Siddharth Marthi, MD, Nelson Kuete, MD, Elizabeth Traore, MD, MPH, Nourhan Ismaeel, MD, Aaron Lay, MD, Akanksha Mehta, MD, MS, Vikram Narayan, MD, Lindsey Hartsell, MD

Emory University School of Medicine

Presented By: Maxwell Baker Richardson, BA

Introduction: Genitourinary (GU) trauma represents a significant portion of injuries encountered in urban trauma centers and may disproportionately affect underserved or minority populations. As a safety-net hospital and one of the largest Level 1 trauma centers in the nation, Grady Memorial Hospital encounters a significant amount of GU trauma in a unique patient base. In this study, we sought to understand the attributes of recent GU trauma at Grady better to inform clinical management and resource allocation at similar sites.

Methods: We performed a retrospective chart review of all patients presenting as a trauma to the ED of Grady Memorial Hospital from January 1st, 2022, to March 6th, 2024. All urologic traumas were identified by reviewing physical exams, operative notes, and imaging studies at intake. We collected demographic information and details about the trauma, including whether they were blunt or penetrating and if there were associated significant injuries to GU and non-GU organs.

Results: Out of the 3,086 traumas identified between January 1st 2022, and March 6th, 2024, 260 patients presenting with GU trauma were identified (8.4% of all traumas). Of these, renal (33.6%), scrotal (26.7%), and penile/urethral (26.0%) were the most prevalent injuries. 81.3% of the traumas were penetrating, 161 patients (61.9%) sustained traumas that affected both GU and non-GU organs, and 42 patients (16.2%) sustained traumas that affected multiple GU organs. Full details are included in Table 1.

Conclusion: The study results show that genitourinary traumas at a major urban trauma center are complex, with most cases involving penetrating trauma and significant concurrent injuries to non-urologic organ systems. The majority of GU traumas at Grady Hospital affected the kidneys, scrotum, and penis/urethra. Our findings highlight the need for trauma centers to have dedicated resources for urologic care, including the coordination of multispecialty care for these unique pathologies. Furthermore, our findings suggest that trauma centers should analyze predominant sites of GU injury, such as the kidneys, scrotum, and penis/urethra, and tailor resources to the injuries sustained by their respective patient populations.

Funding: N/A

Total Traumas (n = 260)	GU Traumas	Total Traumas (n = 3086)	% GU Traumas
2022	124	1403	8.8%
2023	122	1440	8.5%
2024	14	243	5.8%
Types of Trauma		Characteristics of GU Traumas	
Renal	34.2%	Penetrating	81.9%
Ureteral	8.5%	Non-Penetrating	18.1%
Bladder	19.6%	>1 GU Organ	61.9%
Penile/Urethral	25.8%	Concurrent Non-GU Organ Trauma	16.2%
Scrotal	27.7%		
Other	0.8%		

Poster #38

OUTCOMES AFTER REPAIR OF TRAUMATIC URETERAL INJURIES AT A HIGH-VOLUME LEVEL ONE TRAUMA CENTER

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Presented By: Meredith Elise Bernhard, BA, MD

Introduction: Ureteral trauma accounts for 1-3% of all genitourinary trauma, but if inadequately treated, can result in significant morbidity and mortality. Due to its low prevalence, there is a paucity of information regarding management and outcomes of ureteral trauma. We analyzed the outcome of ureteral injuries in a high-volume level one trauma center.

Methods: In a single-institution cohort, we retrospectively reviewed all patients with ureteral trauma over a 5-year period. The data extracted included patients' demographics, clinical presentation, diagnostic workup, primary surgery details, the time from presentation to surgery, complications, and radiographic outcomes. The American Association for the Surgery of Trauma (AAST) grading scale for ureteral injuries was used to assess severity or injuries.

Results: Thirty-eight patients had ureteral injuries at our institution from 2019-2024. Six were iatrogenic and were excluded. Thirty-two patients (33 ureters, 1 bilateral) had traumatic ureteral injuries. Thirty were penetrating injuries. Four injuries (12%) were treated with stent alone, all of which were AAST ≤ 2 . Management included ureteral reimplant in 12 (36.4%), ureteroureterostomy in 10 (30.3%), primary repair over ureteral stent in four (12.1%), percutaneous nephrostomy in two (6.1%), and pyelocystostomy of transplanted kidney in one (3.0%). Median clinical follow-up was 5.9 months (IQR 2.6-12.3). Two patients died during initial hospital admission, and 1 patient received a nephrectomy for non-functional kidney on affected side 21.3 months after initial repair. Eighty-four percent of patients received upper tract imaging after injury, 40.7% RBUS and 59.3% CT. Forty-eight percent of those patients underwent imaging at a median of 6.8 months after stent removal, and no patient's had clinically significant hydronephrosis. For patients that had upper tract imaging with stent in place, 90% had no hydronephrosis and no delayed contrast extravasation on CT scan.

Conclusion: Early recognition of ureteral injuries with prompt management and long-term follow-up are crucial to limiting associated morbidity and mortality. This review demonstrates promising radiographic and clinical outcomes following repair of traumatic ureteral injuries at a high-volume level one trauma center.

Funding: N/A

Median age (years)	29.5
Male gender – no. (%)	27 (84.4)
Race – no. (%)	
Caucasian	3 (9.1)
African American	30 (90.9)
Injury Diagnosis – no (%)	
Immediate	26 (84.8)
Delayed (>24 hours)	5 (15.2)
Mechanism of injury – no (%)	
GSW	30 (90.9)
Blunt trauma	3 (9.1)
Location of injury – no (%)	
Proximal ureter	8 (24.2)
Mid ureter	4 (12.1)
Distal ureter	21 (63.6)
AAST Injury Score – no (%)	
1	4 (12.1)
2	7 (21.2)
3	3 (9.1)
4	14 (42.4)
5	5 (15.2)
Associated injuries – no (%)	
Bladder	7 (21.9)
Small bowel	24 (75.0)
Colon	17 (53.1)
Vascular	10 (31.3)
Liver	5 (15.6)
Initial diagnosis – no (%)	
Preoperative CT	7 (21.2)
Intraoperative imaging	6 (18.2)
Intraoperative exploration	20 (60.6)

Poster #39

INTEGRATING QUALITY OF LIFE INTO COMPREHENSIVE CANCER SURVIVORSHIP CARE FOR PATIENTS WITH URINARY DIVERSION POST RADIATION THERAPY

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Presented By: Jan Vazquez-Rodriguez

Introduction: Radiation therapy is a commonly employed treatment modality for various genitourinary malignancies. While it can be effective in controlling or eradicating cancer, it is not without long-term consequences. One of the major concerns is the development of significant genitourinary toxicity, which can lead to considerable morbidity and adversely affect the quality of life for survivors. This study aims to evaluate the quality of life in patients who have undergone urinary diversion following radiation therapy-induced devastation of the lower urinary tract.

Methods: Patients who underwent supratrigonal cystectomy with ileal conduit were identified from a single surgeon database. Patients were interviewed using a questionnaire focusing on quality of life with urostomy status. Descriptive statistics, including frequencies, percentages, mean, and standard deviations were employed to characterize patients.

Results: Average age of patients who underwent the procedure was 65 years. Four patients were female and five were male. Average time from procedure to questionnaire was 284 days. 55% of patients denied pain that interfered with daily activities. 67% of patients did not report limitations in work, daily activities, strenuous activities, and/or leisurely activities. Negative aspects of urostomy status reported by patients include embarrassment (44%), feeling physically less attractive (33%), and dependence on others for urostomy care (67%). Minimal reported complications due to urostomy include urine leakage, 33%, and mild skin irritation around urostomy, 44%. Poor sexual function reported by the majority of male patients; nonetheless, 78% of patients reported a lack of sexual desire. On a scale of 1 (very poor) to 7 (excellent), patients' average self-reported overall health and quality of life was 5.8 and 5.6, respectively. Preoperative comorbidities that may confound and affect the patient's overall postoperative health and quality of life include prior wheelchair dependence due to quadriplegia (observed in 2 patients) and pre-existing recurrent osteomyelitis of the pubic area (observed in 2 patients).

Conclusion: Urinary diversion is an effective alternative for improving quality of life in patients with severe post-radiation urologic complications.

Funding: N/A

Poster #40

EVALUATING SPECIALTY-BASED MANAGEMENT OF UROLOGIC TRAUMA: A RETROSPECTIVE ANALYSIS OF SURGICAL INTERVENTIONS AND OUTCOMES

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¹University of Louisville Department of Urology, ²University of Louisville School of Medicine

Presented By: Eniola A. Ogundipe, MD

Introduction: Urotrauma requiring procedural intervention can be managed by trauma surgery (TS) or urology services. There is no clear consensus on preferable specialty for these interventions, and limited data compare outcomes by specialty. This study aims to characterize interventions for urotrauma by different specialties and analyze associated outcomes at our institution.

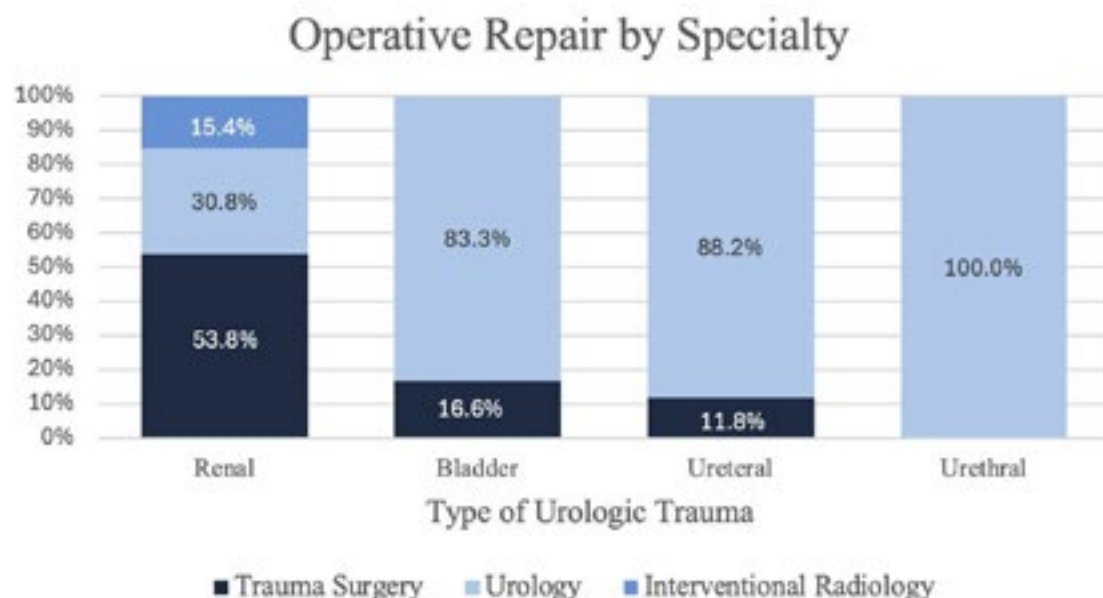
Methods: We conducted a retrospective review of patients presenting to our Level I trauma center with urotrauma who underwent procedural intervention from 2020-2023. We analyzed demographics, urinary injury type, specialty involved, intervention type, injury severity score (ISS), and post-operative course. Fischer's exact, Mann-Whitney U, and Kruskal Wallis tests were utilized.

Results: Of patients with urotrauma, median age 33 (14-87) years, 22.5% (87/387) required intervention. ISS was comparable across specialties: urology (21.5), TS (19), and interventional radiology (IR) (16) ($p=0.76$). Kidney injuries were most common (67%), followed by ureteral (12.5%) and bladder (11.4%) injuries. TS performed most interventions (48.3%), followed by urology (40.2%) and IR (11.5%). Although TS performed most nephrectomies, urology performed most bladder, ureteral, and urethral repairs (Figure 1).

Among the cohort, 19.5% (17/87) were readmitted, with 70.5% (12/17) related to initial urologic trauma. Urology was not consulted in nearly 60% (4/7) of cases where patients later required urologic intervention upon readmission. There was no significant difference in rate of urologic intervention on readmission between patients with initial urology consultation (37.5% [3/8]) and those without (100% [4/4]) ($p=0.08$). Length of stay (LOS) for readmitted patients did not differ significantly between those initially seen by urology and those who were not (3.5vs.5.5 days, $p=0.26$). Follow-up rates were similar for patients treated by urology (86% [24/28]) or TS (70 [27/37]) ($p=0.23$).

Conclusion: TS conducted most urotrauma interventions, while urology managed most non-renal interventions. Notably, there was a nearly 3-fold higher rate of readmission for urologic interventions among patients without initial urology consultation. Readmitted patients not initially seen by urology had a 2-day longer LOS. Urology patients had a comparatively higher follow-up rate. Although not statistically significant, likely due to sample size, these trends demonstrate clinical significance in suggesting that urologic consultation may reduce readmission and reoperation, decrease readmission LOS, and improve follow-up rates.

Funding: N/A



Poster #41

UTILIZING SCANNING ELECTRON MICROSCOPY TO ASSESS MATERIAL BREAKDOWN OF ARTIFICIAL URINARY SPHINCTERS

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Presented By: Matthew Salvino

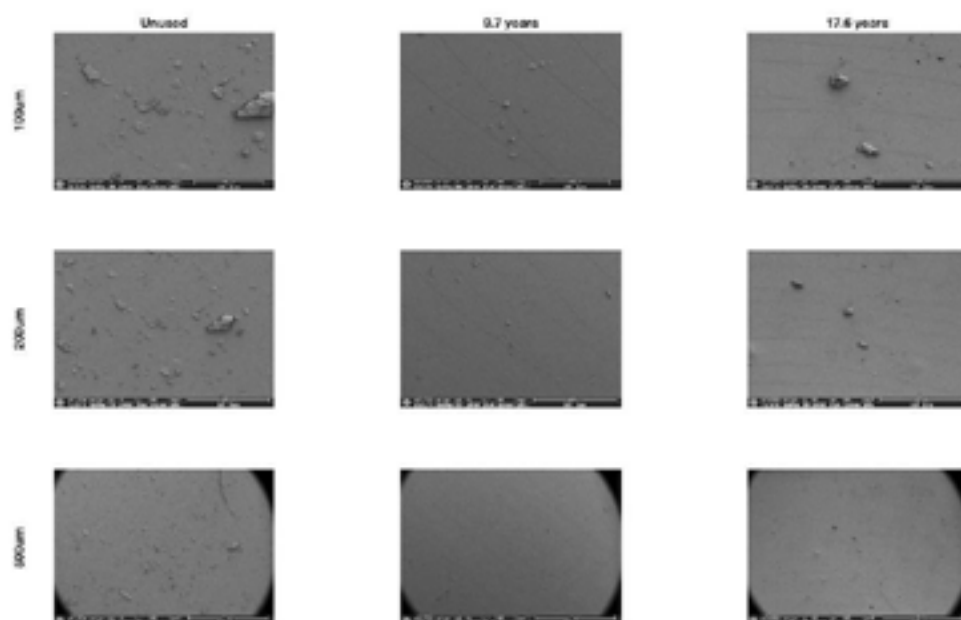
Introduction: Stress urinary incontinence (SUI) is a prevalent urologic issue that affects both males and females, significantly impairing quality of life and impacting social, emotional, and physical well-being. SUI in males is often associated with aging though among men, radical prostatectomy is the most common cause of male SUI. For men seeking to manage their SUI they often turn to surgical intervention such as placement of an artificial urinary sphincter (AUS). Though effective in management of SUI, these devices have been shown to deteriorate over time with use. We set out to evaluate if the breakdown of these devices was visible at the microscopic level.

Methods: This study was conducted at a tertiary care institution, utilizing pressure regulating balloons (PRBs) from 6 explanted AUS devices and 1 new, unused AUS. The PRBs were explanted from 2015 to 2023. The age of the devices was: 0 years (unused), 2.4 years, 5.7 years, 7.4 years, 9.7 years, 12.3 years, and 17.6 years. A thin layer of gold was applied to the devices to increase conductivity and image resolution. The PRBs were then loaded into the Apreo Scanning Electron Microscope with EDS detector and measured at three standard magnifications: 100 micrometers, 200 micrometers, and 500 micrometers. We evaluated surface defects and cracks within the devices to assess for patterns of mechanical stress.

Results: SEM analysis revealed fine surface cracks in the 4 oldest PRBs (7.4, 9.7, 12.3, and 17.6 years old), with cracks propagating mainly in parallel directions. Patternless crack formation, indicating multi-axial stress distribution was present in the 7.4 and 9.7 PRBs. All PRBs demonstrated irregularly shaped particulates on their surfaces.

Conclusion: The study confirms that PRBs from older AUS devices exhibit significant material degradation, characterized by surface cracks and particulates. These findings suggest a relationship between PRB age and material fatigue, potentially leading to decreased elasticity, reduced pressure generation, and recurrent incontinence often necessitating repeat surgery. Understanding the mechanical properties and degradation patterns of PRBs is crucial for improving the durability and effectiveness of AUS devices, thereby enhancing patient counseling, outcomes, and quality of life.

Funding: N/A



Poster #42

MANAGEMENT AND WORKUP OF RECONSTRUCTIVE CASES: TUU SERIES

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USF

Presented By: Jennifer Lynn Griffith, BS, MD

Introduction: A transureteroureterostomy (TUU) is an uncommonly performed urologic procedure, which involves reimplanting the ureter of one kidney into the ureter of the contralateral side. TUUs are most commonly performed when the patient cannot undergo a ureteroneocystostomy due to physical limitations of the diseased ureter and/or bladder. One series noted less than 100 cases of TUUs performed in 54 combined years. The reported patency rates were all >90%, however, most of the papers cited a mean follow-up of < 2 years.

Aim: This paper aims to review 5 patient cases requiring TUU revisions. This is a single-surgeon, single-institution case series. Each patient underwent a standard pre-operative workup for reconstructive surgery including retrograde pyelograms, antegrade pyelograms, cystoscopy, and a Mag3 scan.

Methods: Every patient had baseline CKD with bilateral hydronephrosis from chronic obstructive uropathy. Some patients were symptomatic with rUTIs and flank pain, requiring frequent hospitalizations. Based on preoperative work-up and intraoperative findings, all patients were noted to have a stenotic common ureter. 80% of the patients had a left-to-right TUU. 80% of the patients underwent their initial TUU in combination with reconstructive urologic surgery for neurogenic bladder in the pediatric setting. In this population, the mean time to revision was 19 years.

All but one patient underwent a reconstructive urologic procedure involving bilateral ureteral reimplantation into their bladder or bladder augment at the level of the TUU with the ureteroneocystostomy proximal to the common ureter. The remaining patient had an ileal conduit creation, as he was ineligible for continent diversion due to severe CKD.

Results: All the patients demonstrated improvement/resolution of their hydronephrosis, renal function, and/or symptoms (ie flank pain, hospitalizations for rUTIs) following their TUU revision surgery. Two of the five patients had complications, including wound dehiscence and bowel injury.

Conclusion: Per the literature review, transureteroureterostomies may be performed in select circumstances with documented high patency rates in the first few years of follow-up. Based on our case series, the most common long-term complication is a stenotic common ureter. Multiple types of reconstructive surgeries may be performed in combination with bilateral ureteral reimplantation to address the issue, with the overall goal of eliminating the common ureter.

Funding: N/A

Poster #43

ASSESSING TRUE 5-YEAR LOCAL RECURRENCE FOLLOWING ROBOTIC-ASSISTED PARTIAL NEPHRECTOMY (RAPN) IN PATIENTS WITH NEGATIVE MARGINS

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Presented By: Neda Qosja

Introduction: To evaluate factors associated with true 5-year local recurrence following RAPN.

Methods: We retrospectively reviewed 442 consecutive RAPNs performed by a single surgeon between 2008-2019. Patients who had an oncocytoma, angiomyolipoma, and did not have a five year follow up were excluded from our study. Our final analysis included 368 RAPN. We evaluated patient preoperative factors and pathology variables including age, sex, RENAL nephrometry score (RNS), comorbidities, tumor size, and tumor stage. We utilized a Kruskal-Wallis and Fischer Exact test to analyze categorical and continuous variables for associations with recurrence rates. A multivariable logistic regression model was also used to evaluate tumor factors associated with an increased likelihood of local recurrence.

Results: A total of 23 (6.3%) local recurrences (LR) were identified within a five-year period from RAPN. 18 patients had local kidney renal recurrence vs 5 patients with regional lymph node recurrence. Most patients who had LR were male (91.3% vs 8.7%, $p=0.03$), had a median age of 68.5 years [IQR: (36.86, 79.62)], and a median tumor size of 3.40 cm [IQR: 1.20, 7.00]. The median time when LR developed was 18 months [IQR: (6.00, 60.00)]. All 23 (100%) patients with true LR had negative margins. There was no statistical difference in baseline characteristics between patients with LR and patients who did not. Higher median renal score was significantly correlated with true LR (6.0 vs 5.0, $p=0.01$). Clear cell and papillary renal cell carcinoma were the only two tumor subtypes found in recurrence (82.6% vs 17.4%). After multivariable adjustment of different tumor factors including subtype, grade, stage, and MAP score, patients with tumor stage T1b were more likely to have cancer recurrence [3.103 Odds Ratio (OR): 2.461 (0.906-6.099); $p<0.01$].

Conclusion: Tumor complexity (elevated RNS), male sex, and tumor stage were associated with true 5-year local recurrence following RAPN in patients with negative surgical margins.

Funding: NA

Poster #44

ASSESSING RENAL FUNCTION FOLLOWING TREATED POST PARTIAL NEPHRECTOMY (PN) RENAL ARTERY PSEUDOANEURYSM (RAP)

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Presented By: Eric Qualkenbush, MD

Introduction: The objective of this study is to compare renal function after treating a renal artery pseudoaneurysm (RAP) in open partial nephrectomy (OPN) or robotic-assisted partial nephrectomy (RAPN) in a large single surgeon series.

Methods: 1001 consecutive PN (763 RAPNs and 238 OPNs) performed by a single surgeon were retrospectively reviewed. We evaluated patient demographics, postoperative complications, and renal function at POD1, one month, and six months following surgery. Renal function was defined as estimated glomerular filtration rate (eGFR) and calculated through the CKD-EPI Cr 2009 equation. Loss of renal function following treatment of RAP was defined as a decline in 10% of baseline eGFR at either one month or six months post-treatment.

Results: 9/238 (3.8%) OPN patients and 25/763 (3.2%) RAPN patients developed symptomatic RAP following PN and was treated with Interventional Radiology embolization in all cases. The average time to RAP presentation was 15 days in OPN [15.5 days (SD: 8.42)] and 22 days in RAPN [22.4 days (SD: 34.3)]. After treating RAP, both cohorts experienced a larger change in their median eGFR based on the difference from baseline to 1 month and 6 months, however it was not significant [OPN at 1 month: 14.0 (IQR: 3.0, 20.0) vs OPN at 6 months: 7.0 (IQR: 5.0, 29.0)] [RAPN at 1 month: 19.0 (IQR: 2.0, 30.0) vs RAPN at 6 months: 9.0 (IQR: 1.0, 19.0)] (all $p > 0.05$). There was no significant renal decline within 10% of baseline eGFR. All RAPN patients who had a RAP had an eGFR > 60 at six months as well as the majority in the OPN cohort [25/25 RAPN patients (100%) vs 7/9 OPN patients (77.8%), $p = 0.015$].

Conclusion: Patients who had treated RAP following RAPN or OPN did not experience a significant renal decline at one and six months.

Funding: NA

Poster #45

RESOLUTION OF PARANEOPLASTIC SYNDROMES IS PROGNOSTIC IN PATIENTS WITH LOCALIZED RENAL CELL CARCINOMA

Gregory Palmateer¹, Edouard Nicaise¹, Taylor Goodstein¹, Benjamin Schmeusser², Dattatraya Patil¹, Nahar Imtiaz¹, Daniel Shapiro³, Jason Abel³, Shreyas Joshi¹, Vikram Narayan¹, Kenneth Ogan¹, Viraj Master^{1,4}

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Presented By: Gregory Palmateer, BA

Introduction: Paraneoplastic syndromes (PNS) are associated with worse survival in patients with renal cell carcinoma (RCC). However, it is unclear if their resolution has any prognostic value. We examined whether resolution of PNS by one year after nephrectomy in patients with localized RCC was associated with improved overall survival (OS) and cancer-specific survival (CSS).

Methods: We retrospectively reviewed the prospectively maintained Emory University nephrectomy database for patients with any histology nonmetastatic pT1–T3 RCC and relevant labs available within 90 days before and within one year after surgery who underwent nephrectomy between 2005 and 2022. PNS resolution was defined as return of an abnormal lab value to established laboratory cutoffs by one year after surgery. PNS examined included anemia (hemoglobin < 11.0g/dL or hematocrit < 33%), thrombocytopenia (platelet count < 100/nL), thrombocytosis (platelet count > 400/nL), hepatic dysfunction (defined by either alanine aminotransferase [ALT] > 50 U/L or aspartate aminotransferase [AST] > 50 U/L), hypercalcemia (corrected serum calcium > 10.4 mg/dL), elevated c-reactive protein (CRP) > 5 mg/L, elevated erythrocyte sedimentation rate (ESR; male > 22 mm/hr, female > 29 mm/hr), and elevated neutrophil-lymphocyte ratio (NLR) >4:1. Survival rates were estimated with Kaplan Meier curves and the association between PNS resolution and OS and CSS was assessed using multivariable Cox proportional hazards models.

Results: Of 823 patients who met inclusion criteria, resolution of at least one PNS was observed in 549 (66.7%) by one year after surgery. 10-year OS and CSS rates were 47% and 84.3% for no PNS resolution, 57.8% and 87.7% for 1 PNS resolution, and 56.9% and 84.8% for ≥ 2 PNS resolution, respectively. On multivariable analysis, compared to ≥ 2 PNS resolved at one year, a lack of PNS resolution was independently associated with worse OS (HR 2.00 [95%CI 1.49–2.68], p < 0.001) and worse CSS (HR 2.44 [95%CI 1.35–4.41], p = 0.003; (Table 1).

Conclusion: Two or more PNS resolved by one year following nephrectomy is associated with improved OS and CSS in patients with localized RCC.

Funding: N/A

Table 1. Multivariable Cox Hazards model for overall and cancer-specific survival in patients with local RCC by count of lab resolution by one year

Covariant	n (%)	Overall Survival		Cancer-specific Survival	
		Hazard Ratio (95% CI)	p-value	Hazard Ratio (95% CI)	p-value
Count of preop labs resolved					
1 lab resolved	255 (30.9)	1.08 (0.78–1.49)	0.613	1.28 (0.68–2.41)	0.437
No labs resolved	273 (33.1)	2.06 (1.49–2.84)	< 0.001	2.44 (1.35–4.41)	0.003
≥ 2 labs resolved	297 (36)	Ref		Ref	
Receipt of systemic treatment within 1 year					
	35 (4.2)	1.71 (0.95–3.09)	0.075	3.93 (1.97–7.84)	< 0.001
Age > 60	435 (52.7)	1.93 (1.48–2.46)	< 0.001	1.41 (0.87–2.28)	0.165
Male	485 (58.8)	1.63 (1.27–2.14)	< 0.001	1.63 (0.99–2.69)	0.055
Race					
Black	331 (40.1)	1.05 (0.81–1.36)	0.709	0.75 (0.44–1.27)	0.283
Other	44 (5.3)	0.89 (0.49–1.62)	0.698	0.84 (0.26–2.76)	0.774
White	450 (54.6)	Ref		Ref	
ECOG ≥ 1	130 (15.8)	1.57 (1.19–2.07)	0.001	2.10 (1.26–3.51)	0.005
BMI ≥ 30 kg/m2	396 (47.4)	0.77 (0.60–0.99)	0.031	0.57 (0.35–0.92)	0.022
CCE 4+	409 (49.6)	1.57 (1.21–2.02)	< 0.001	1.52 (0.94–2.46)	0.089
pT stage					
T3	232 (28.1)	1.22 (0.86–1.72)	0.262	1.90 (1.06–3.39)	0.030
T1–T2	393 (47.9)	Ref		Ref	
IVC thrombus present					
	55 (6.7)	1.40 (0.86–2.28)	0.18	**	
ccRCC	569 (67.9)	0.95 (0.73–1.24)	0.718	**	
tumor size*		1.04 (1.00–1.08)	0.037	1.12 (1.06–1.19)	< 0.001

Number of observations in the original data set = 825. Number of observations used = 824. Harrell's Concordance statistic estimate = 0.7118 *tumor size was treated as a continuous variable. ** Variables were eliminated in backward model selection. Abbreviations: ECOG Status (Eastern Cooperative Oncology Group Status), Body Mass Index (BMI), Charlson comorbidity index (CCI), inferior vena cava (IVC), clear cell renal cell carcinoma (ccRCC).

Poster #46

RACIAL DIFFERENCES IN CLINICOPATHOLOGIC CHARACTERISTICS, SURVIVAL, AND DISEASE RECURRENCE FOR PATIENTS UNDERGOING RADICAL NEPHRECTOMY WITH TUMOR THROMBECTOMY.

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Presented By: Sol Moon, MD

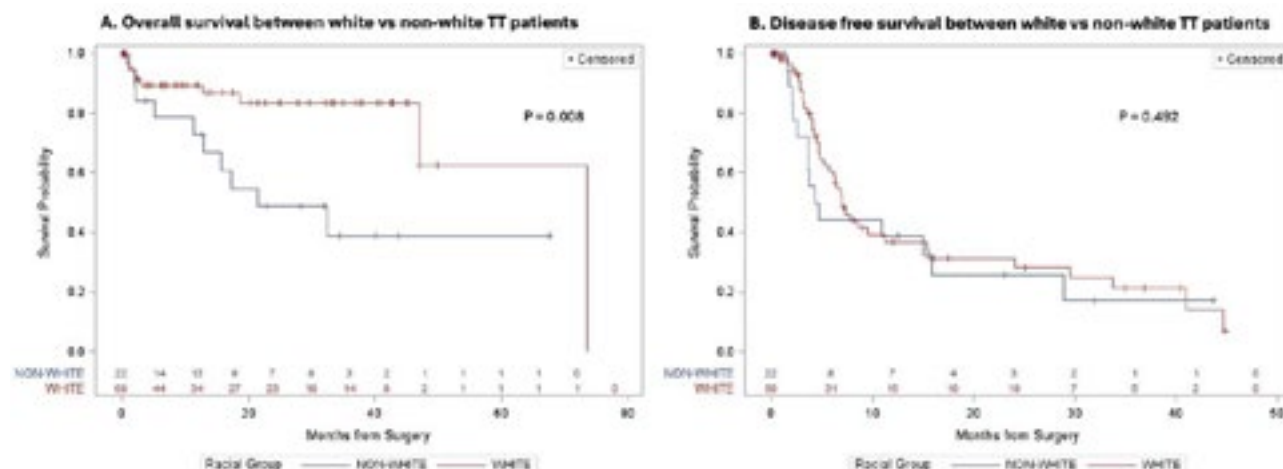
Introduction: Radical nephrectomy with tumor thrombectomy (TT), typically performed for locally advanced staged renal cell carcinoma (RCC), is a challenging operation and survival is compromised compared to resection of localized disease. Prior literature has noted differences in survival for advanced RCC based on race. However, few studies have examined race-based differences in patients undergoing nephrectomy with TT. Our objective was to evaluate racial differences in clinicopathological characteristics and survival for TT patients.

Methods: We reviewed patients treated with nephrectomy and TT from 2015 – 2023 at a high-volume, tertiary care center. Pre-operative, intraoperative, pathologic and survival outcomes were recorded for White and non-White cohorts. Wilcoxon rank-sum tests and chi-square/Fisher's exact tests were used for continuous and categorical variables, respectively. Overall survival (OS) and disease-free survival (DFS) Kaplan-Meier curves were created and tested using the log-rank test.

Results: Ninety-one patients (69 White and 22 non-White) underwent nephrectomy with TT, 27 (30%) cases were cytoreductive. Fifteen (16.5%) patients had a level 0 TT, 22 (24.2%) level I, 24 (26.4%) level II, 17 (18.7%) level III, and 13 (14.2%) level IV. Non-White patients presented with more systemic symptoms (59% vs 35%, $p=0.043$) and had higher proportion of non-clear cell histology (59% vs 12%, $p<0.001$). Post-operatively, non-White patients were more likely to have minor complications (79% vs 46%, $p=0.014$) and longer lengths of stay (IQR, 5-12 vs 4-7, $p=0.023$). No differences were noted for gender, age, TNM staging, IMDC risk criteria, TT level, blood loss or transfusions, readmission, or major complications. Non-White patients had worse OS (median survival 32.5 vs 73.6 months, $p=0.008$), Fig. 1A. DFS for non-White patients (median 4.5 months 95% CI 2.5-15.9) and White patients (median 7.0 months 95% CI 5.2-15.4) demonstrated no significant difference ($p=0.492$), Fig. 1B.

Conclusion: Minimal preoperative and intraoperative differences exist between White and non-White patient cohorts undergoing nephrectomy with TT. However, we noted significant worse OS for non-White patients with no changes in DFS, suggesting decreased survival may not be related to disease progression or recurrence, but rather possible health care disparities. Broad, multi-institutional investigation is needed to better identify loco-regional factors contributing to this alarming finding.

Funding: This study was partially supported by the National Institutes of Health (grant numbers UL1TR003096 and P30CA013148)



Poster #47

SYMPTOMATIC PRESENTATION OF RENAL CELL CARCINOMA

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Presented By: Alexandra Isabel López-Chaim, BSc

Introduction: The prevalence of the classic triad- hematuria, flank pain and abdominal mass- among renal cell carcinoma (RCC) patients appears to be declining. However, the relationship between these symptomatic presentations and patient outcomes remains unclear. A contemporary analysis could provide insights into the stage-specific epidemiology of RCC symptoms and clarify survival differences between localized and metastatic disease. The objective of this study is to clarify the impact of symptomatic presentation in renal cell carcinoma.

Methods: The linked SEER-Medicare database was utilized to identify RCC patients diagnosed between 2004-2017. This analysis was complemented by a claims-based algorithm to capture presentations of hematuria, abdominal pain, or abdominal/pelvic mass or swelling within the preceding 12 months.

Results: Among 47,369 RCC patients, 32,503 (68.6%) exhibited at least one symptom, while 14,866 (31.4%) remained asymptomatic. Symptomatic patients decreased over time ($p < 0.001$). Abdominal pain was most prevalent in Stage I (60.2%, $p < 0.001$). The classic triad of hematuria, abdominal pain, and abdominal masses was observed in only 2.9% of patients and it held no correlation to the stage at presentation. The median follow-up time was 65 months (IQR 35-106). Patients with non-specific symptoms had no association with survival outcomes; those with the classic triad and abdominal mass specifically both had increased risk of death (aHR 1.14; 95%CI 1.07-1.21 and aHR 1.05; 95%CI 1.01-1.08, respectively). The five-year survival rate for patients without and with the triad of symptoms was 53.78% and 44.61% respectively.

Conclusion: A significant proportion of incidentally found RCC patients present with symptoms, although those with the classic triad is rare. Symptoms are decreasing over time, while conversely, AJCC Stage 1 disease is increasing over time. Only abdominal pain is associated with Stage I. The lack of association with survival observed in symptomatic patients non-specific to the classic triad may be attributed to incidental detection, particularly among those presenting with non-specific abdominal pain. This study analyzed United States Medicare claims linked with a national cancer registry, revealing that over half of renal cancer patients presented with symptoms such as abdominal pain, swelling or hematuria. Presence of abdominal pain and hematuria symptoms alone did not demonstrate effect on survival rates.

Funding: N/A

Poster #48

LONG-TERM ONCOLOGICAL AND FUNCTIONAL OUTCOMES OF CRYOABLATION OF SMALL RENAL MASSES; 20-YEAR FOLLOW-UP RESULTS OF A SINGLE INSTITUTIONAL EXPERIENCE

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Presented By: Mahdi Mottaghi, M.D.

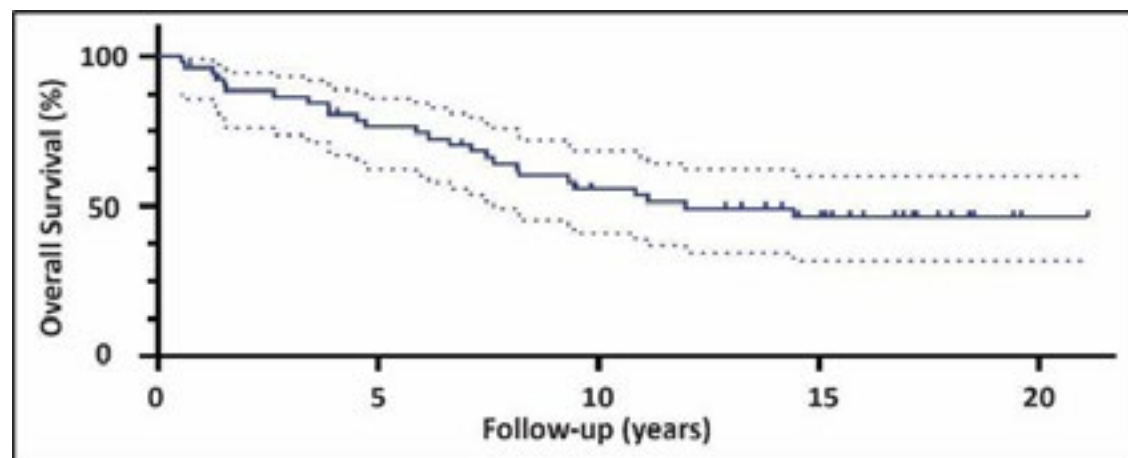
Introduction: Cryoablation of the small renal mass (SRM) is a less invasive nephron-sparing treatment option and an alternative to partial nephrectomy (PN). Herein, we aim to present our institutional experience on the long-term functional and oncological outcomes of renal cryoablation of SRMs.

Methods: We conducted an IRB-approved retrospective database update of 129 consecutive patients who underwent cryoablation of a SRM (<4cm) from 10/2001-12/2011 at Duke University Hospital. Technical failure was considered as persistent enhancement on CT, requiring further ablative or surgical intervention. Disease progression was defined as local recurrence, metastasis, or need for systemic therapy. Functional and oncological outcomes were reported as post-ablation creatinine and eGFR; recurrence-free, metastasis-free, progression-free, and overall survival.

Results: The mean age was 65.52±11.37 years. The mean±SD (median) overall and radiologic follow-up were 9.9±5.6 (11) and 7.4±5.6 (6.1) years, respectively. Polar location on the preoperative CT was upper, central, and lower in 45(36%), 52(41%), and 29(23%), respectively. Biopsy data were available for 85(66%) cases, with 61(72%) cases diagnosed as renal cell carcinoma. Eleven (8.5%) cases experienced local failure that was managed with repeat ablation (7 cases), partial nephrectomy (1), and watchful waiting (4). Most cryoablations (101/129) were conducted without any reportable adverse events. Of 28 reported complications, 23 were Clavien-Dindo grade 1-2. Higher-grade complications were post-operative bleeding, ureteropelvic junction obstruction, perirenal collection in two cases, and pulmonary edema requiring reintubation. Regarding functional outcomes, although creatinine increased (Wilcoxon test; p<0.001) and eGFR (Paired t-test; p<0.001) declined significantly at 1-year post-ablation, the mean change was only 11% and 8.1% from the baseline, respectively. For cases with biopsy-proven RCC, the mean OS and MFS were 46.2% and 95.1% in 15-year follow-up, respectively. Univariate Cox regression analysis identified the patient's age at treatment, COPD, and 1-year eGFR levels as significant predictors of overall survival. On multivariate analysis, only age was a weak independent predictor of overall survival (HR:1.07; p=0.02). Both RFS and PFS were 86.1%, and CSS was 96.5% at the 15-year follow-up. Ten cases experienced recurrence and were managed with repeat ablation (7/12), PN (2/12), and radical nephrectomy (1/12).

Conclusion: Renal cryoablation is an effective modality for oncological control and preservation of renal function in the management of SRMs.

Funding: N/A



Poster #49

RACIAL DIFFERENCES IN SURVIVAL FOR LOCALLY ADVANCED RENAL CELL CARCINOMA

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¹Brody School of Medicine, Dept. of Urology, Greenville, ²Brody School of Medicine, Dept. of Education, Greenville, ³Brody School of Medicine, Dept. of Urologic Oncology

Presented By: Jean-Pierre Kanumuambidi, MPH

Introduction: Previous studies have established that African Americans with renal cell carcinoma (RCC) tend to have more aggressive tumors and worse outcomes than other races. The impact of racial differences on locally advanced tumors, specifically tumor thrombus, and metastatic RCC (mRCC), remains unclear. We aim to evaluate survival outcomes among different racial groups in a population of RCC tumor thrombus patients.

Methods: This IRB-approved retrospective study analyzed patients aged 18-80 with RCC and tumor thrombus who underwent nephrectomy between 2010 and 2015, using the National Cancer Database (NCDB). The study focused on assessing survival differences between racial backgrounds. Demographic covariates included age, sex, and race/ethnicity. Clinical covariates included tumor stage, grade, subtype, thrombus level, type of surgery, comorbidities, hospital type, and patient residence.

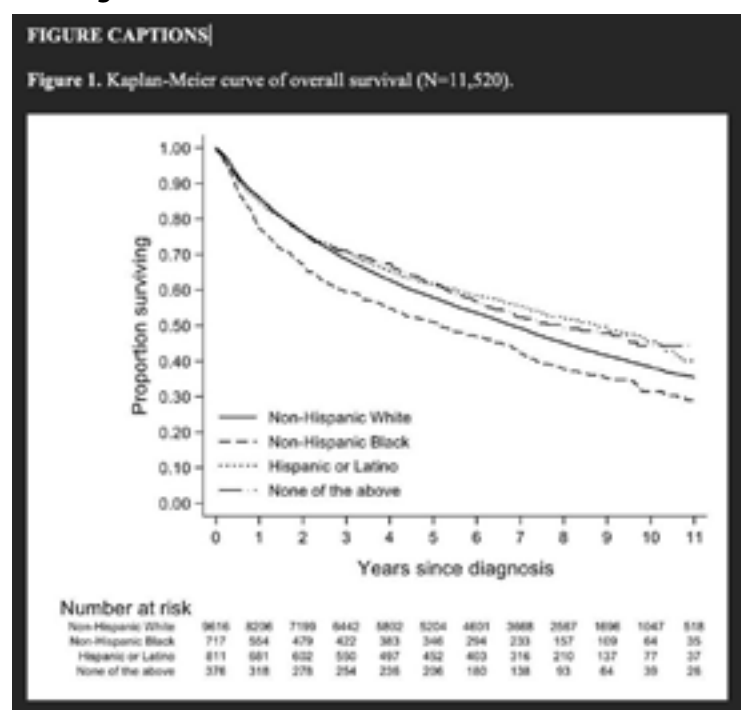
Statistical analyses, including Kruskal-Wallis, Chi-square, and log-rank tests, were used to compare results by race/ethnicity. Survival outcomes were assessed using Kaplan-Meier curves, and multivariable analyses were performed using Cox proportional hazards and multinomial logistic regression. Significance was set at $P < 0.05$.

Results: We identified 11,520 patients with RCC and tumor thrombus who underwent surgery between 2010-2015. Of these, 83% were non-Hispanic White, 6% non-Hispanic African American, and 7% Hispanic. The overall mortality rate was 55%, and 82% in mRCC cases. The study population included 2,429 mRCC patients. African Americans had lower survival rates compared to Caucasians in both overall and mRCC cohorts. Multivariable analysis confirmed higher mortality for African Americans (HR: 1.22 overall, $P < 0.001$; HR: 1.24 in mRCC, $P = 0.019$).

Overall, 5-year survival rates according to the tumor thrombus presence did not differ among higher levels between Caucasians and African Americans for level I-III 39% and 46%, $p = 0.21$; and Level IV 39% and 39%, $p = 0.39$, respectively. There was a survival advantage for Level 0 tumor thrombus among the Caucasian population, $p < 0.001$ Log-rank test.

Conclusion: African American patients diagnosed with RCC and tumor thrombus face a 22% higher risk of mortality compared to non-Hispanic white patients. They often present with more locally advanced disease and mRCC. The mortality risk for metastatic RCC is increased by 24% compared to Caucasians. The results underscore the demographic impact of race on disease severity and support clinical consideration when managing African American patients.

Funding: N/A



Poster #50

COMPARATIVE STUDY ON SURVIVAL OUTCOMES AMONG OCTOGENARIANS TREATED WITH PARTIAL NEPHRECTOMY AND ABLATIVE TECHNIQUES IN STAGE I RENAL TUMORS

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¹Miami Cancer Institute, ²Herbert Wertheim College of Medicine, Florida International University, ³Tulane University

Presented By: Arjun Pon Avudaiappan, MD

Introduction: Nephron-sparing procedures are the preferred first-line treatment for localized T1 renal cell carcinoma. Guidelines suggest ablative techniques can be considered a viable option in Stage I renal tumors. With the increase in age, the number of functional renal units decreases; therefore, renal preservation plays a vital role in improving the functional and survival outcomes of the elderly population. There are limited studies in the literature that compare PN and ablation for renal tumors in the elderly population. In this study, we use the National Cancer Database to compare the survival outcomes between PN and RN among octogenarians.

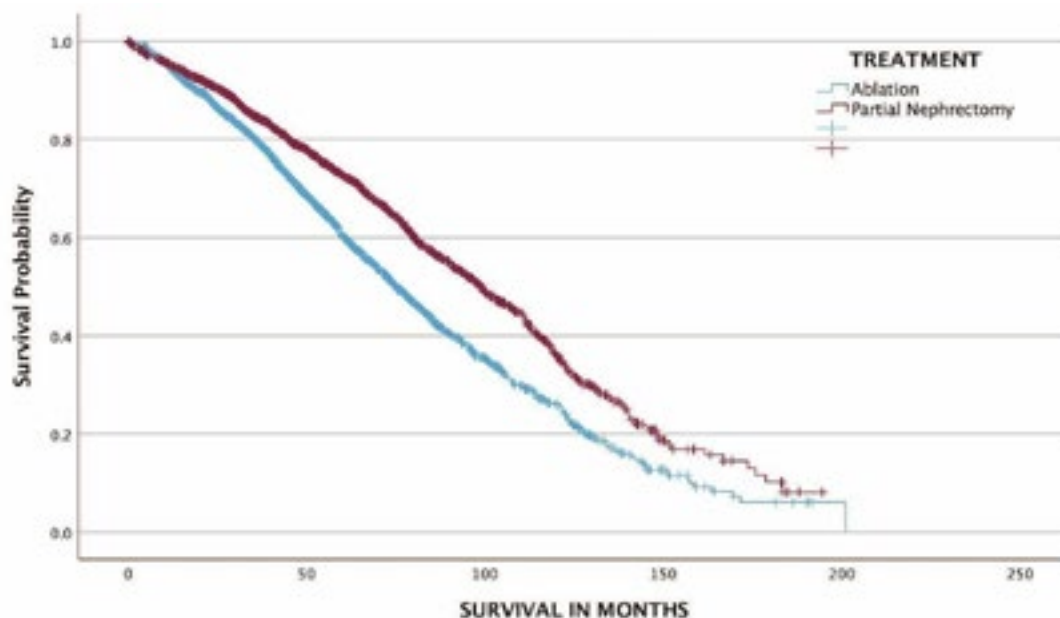
Methods: Our study was on individuals above 80 years diagnosed with stage I tumors (cT1N0M0) between 2004 and 2018. The primary cohort was divided into the PN and ablation cohorts based on the treatment modality. The PN cohort included those who underwent PN, and the ablation cohort included those who underwent cryotherapy, laser ablation, and thermal ablation. A Kaplan-Meier analysis was performed to compare the survival outcome between these groups after propensity matching with sex, race, ethnicity, median income, insurance, facility type, clinical T, grade, histology, and tumor size.

Results: Of 371,500 patients with T1 disease, 6,222 met our selection criteria. Among them 3381(54.3%) underwent PN and 2841(45.7%) underwent ablation. Among the ablation cohort, 1878(66.1%) underwent cryoablation, 763(26.9%) underwent thermal ablation, and 200(7.0%) underwent laser ablation. After propensity-matching, each cohort had 1661 patients. The median overall survival (OS) for the PN and ablation cohorts were 98.8 and 75.1 months, respectively ($p < 0.001$). However, for T1a tumors, the median OS for PN and ablation cohorts were 103.1 and 80.5 months, and for T1b tumors, the median OS were 85.7 and 55.5 months, respectively ($p < 0.001$).

Conclusion: Our study on stage I disease among octogenarians observed that PN had better OS than ablation. Similarly, T1a and T1b tumors had better OS with PN compared to ablative techniques. Therefore, based on risk stratification, renal preservation through PN can be considered a viable option in T1b tumors among carefully selected octogenarians.

Figure 1. Overall survival comparing partial nephrectomy and ablation techniques for stage I renal tumors in octogenarians

Funding: N/A



Poster #51

ROBOTIC RADICAL NEPHROURECTOMY FOR UPPER TRACT UROTHELIAL CARCINOMA IN GERIATRIC PATIENTS: COMPARISON WITH NON-GERIATRIC PATIENTS WITH INTERMEDIATE TERM ONCOLOGIC FOLLOW UP

Justin Refugia, Parth Thakker, Timothy O'Rourke, Adam Cohen, Aaron Bradshaw, Randy Casals, Maxwell Sandberg, Wyatt Whitmann, Sumit Saini, Ashok Hemal

Atrium Health Wake Forest Baptist

Presented By: Adam Bret Cohen, BS, MD

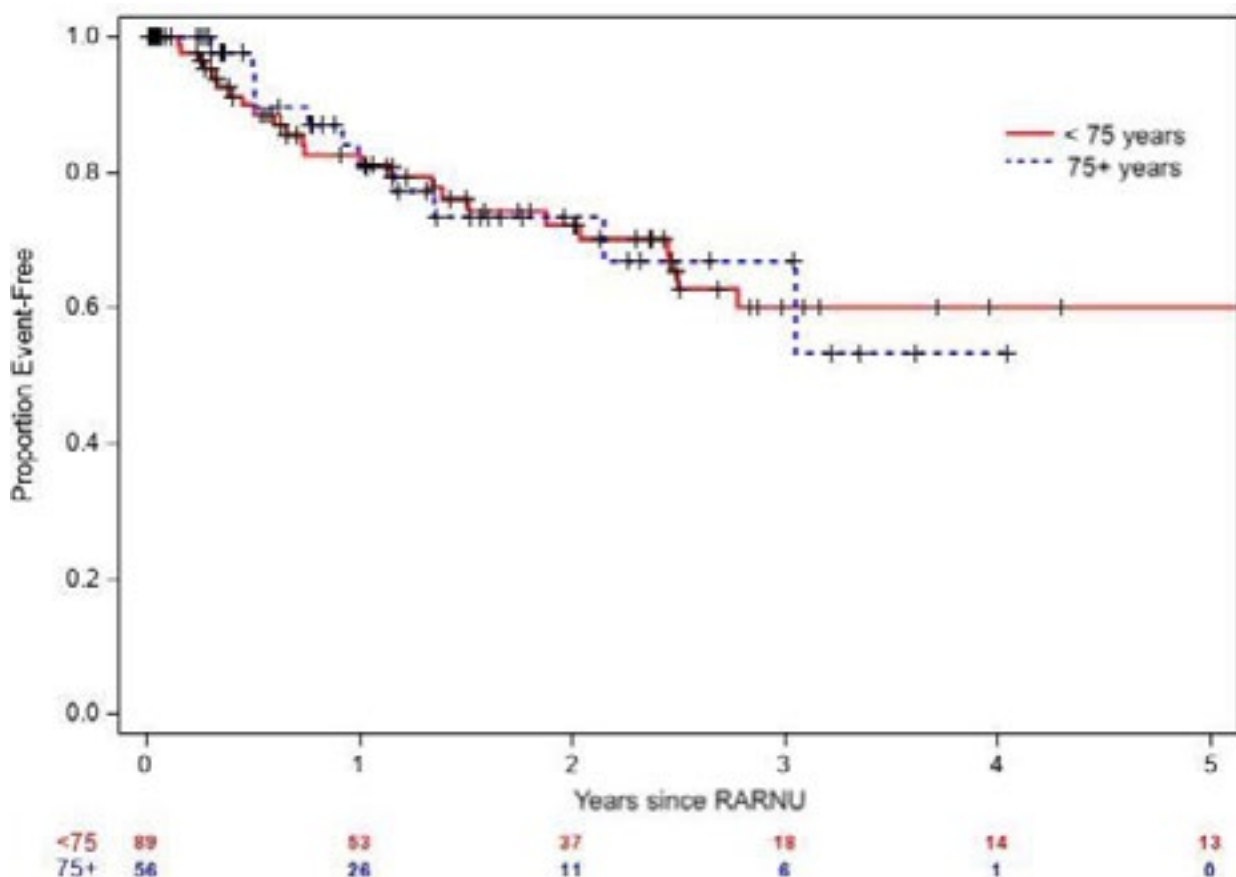
Introduction: To assess the oncologic efficacy and safety of robot-assisted approach to radical nephroureterectomy (RARNU) in geriatric versus younger patients with upper tract urothelial carcinoma (UTUC).

Methods: Single center, retrospective cohort study from 2009 to 2022 of 145 patients (two cohorts: <75 and ≥75 years old) with non-metastatic UTUC who underwent RARNU. Primary endpoint was UTUC-related recurrence of disease during surveillance (bladder-specific and metastatic). Safety assessed according to 30-day, modified Clavien-Dindo (C.D.) classifications (Major: C.D. III-V). Survival estimates with Kaplan-Meier method.

Results: There were 89 patients < 75 years (median 65 years) and 56 patients ≥75 years (median 81 years). Comparing the young versus geriatric cohorts: median follow-up 38 vs 24 months (p=0.03, respectively) with similar three-year bladder-specific recurrence survival (60% vs 67%, HR 0.70, 95% CI [0.35, 1.40], p=0.31) and metastasis-free survival (79% vs 70%, HR 0.71, 95% CI [0.30, 1.70], p=0.44). Overall survival at one-year (89% vs 76%) and three-years (72% vs 41%; HR 3.29, 95% CI [1.88, 5.78], p<0.01). The 30-day major (1% vs 0) and minor complications (8% vs 14%, p=0.87). Limitations include retrospective study design of a high-volume, single surgeon experience.

Conclusion: Compared to younger patients with UTUC, geriatric patients undergoing RARNU have similar oncologic outcomes at intermediate term follow-up with no increased risk of 30-day perioperative complications. Thus, age alone should not be used to disqualify patients from definitive surgical management of UTUC with RARNU.

Funding: n/a



Poster #52

SOCIOECONOMIC DIFFERENCES IN CLINICOPATHOLOGIC CHARACTERISTICS AND SURVIVAL FOR PATIENTS UNDERGOING RADICAL NEPHRECTOMY WITH TUMOR THROMBECTOMY.

Kartik Patel, B.S.¹, Milton Williams, M.D.¹, Sol Moon, M.D.¹, Andrew Fang, M.D.¹, Jeffrey Nix, M.D., MSHA, FACS^{1,2}, Sunil Sudarshan, M.D.^{1,2}, Soroush Rais-Bahrami, M.D., MBA, FACS^{1,2,3}, James Ferguson, M.D., Ph.D.^{1,2}, Robert Oster, Ph.D.^{2,4}, Charles Peyton, M.D.^{1,2}

¹Department of Urology, University of Alabama at Birmingham Heersink School of Medicine, ²O'Neal Comprehensive Cancer Center, University of Alabama at Birmingham Heersink School of Medicine, ³Department of Radiology, University of Alabama at Birmingham Heersink School of Medicine, ⁴Division of Preventative Medicine, Department of Medicine, University of Alabama at Birmingham Heersink School of Medicine

Presented By: Kartik Patel, BS

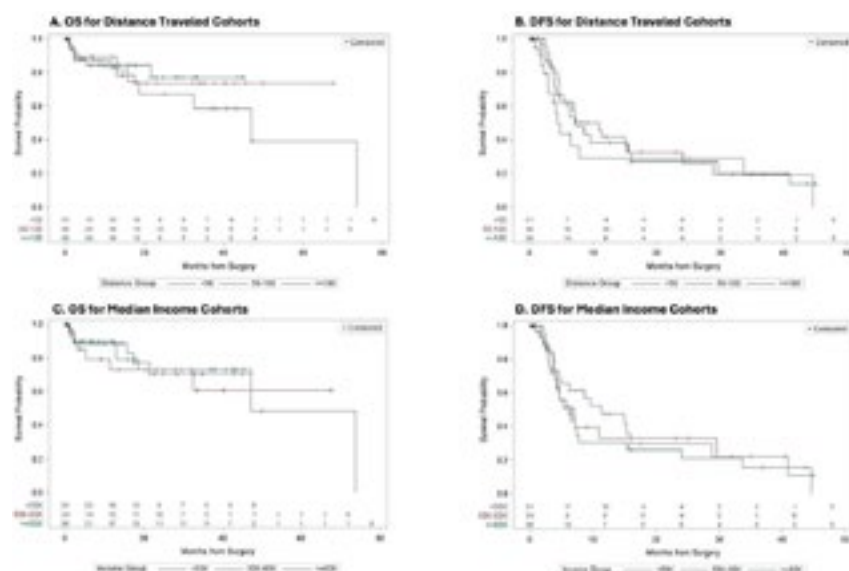
Introduction: Socioeconomic factors, such as distance traveled (DT) for treatment and median income (MI) may influence oncologic outcomes. Advanced RCC with venous tumor thrombus (TT) often requires referral to a tertiary care center. We sought to evaluate differences in clinicopathologic characteristics and survival based on DT and MI for RCC patients undergoing nephrectomy with tumor thrombectomy.

Methods: We reviewed RCC TT patients undergoing surgery from 2015-2023 at the University of Alabama at Birmingham. Patients were grouped based on DT and MI determined by ZIP codes (American Community Survey U.S. Census Bureau data). Based on median distribution analysis, DT was categorized as <50, 50-100, or ≥100 miles and MI was grouped as < \$50K, \$50K-\$60K, and ≥ \$60k. Wilcoxon rank-sum tests, chi-square/Fisher's exact tests, and Kruskal-Wallis tests were used for continuous (two-group), categorical, and continuous (three-group) variables, respectively. Kaplan-Meier curves and log-rank testing was performed for overall survival (OS) and disease-free survival (DFS).

Results: Ninety-one patients (69 White and 22 non-White) underwent nephrectomy with tumor thrombectomy. Fifteen (16.5%) patients had a level 0 TT, 22 (24.2%) level I, 24 (26.4%) level II, 17 (18.7%) level III, and 13 (14.2%) level IV. Amongst DT and MI cohorts, no differences were noted for TNM staging, TT level, blood loss/transfusions, post-operative complications, length of stay, or readmission. Patients with MSKCC intermediate and poor risk disease were more likely to travel > 50 miles to receive care ($p < 0.05$). Additionally, low and middle-income patients were more likely to travel > 50 miles for care and be non-white ($p < 0.05$). No significant difference in OS (Figure 1A,1C) or DFS (Figure 1B,1D) between DT and MI cohorts, ($p > 0.05$) was noted.

Conclusion: Patients who traveled > 50 miles to receive care at a tertiary center were more likely to be from lower income areas, non-White, and present with higher risk disease ($p < 0.05$). Although these patients faced increased barriers to care, there were no significant differences in OS, DFS, postoperative complications, length of stay, or readmission rates between the cohorts. These results support the trend toward regionalization of advanced oncologic care to optimize outcomes. Further research is needed to investigate interventions to minimize the burden of overcoming these barriers to care.

Funding: This study was partially supported by the National Institutes of Health (grant numbers UL1TR003096 and P30CA013148)



Poster #53

THE APPLICATION OF PUBLISHED SARCOPENIA THRESHOLDS TO PREDICT OVERALL SURVIVAL IN PATIENTS WITH NON-METASTATIC RENAL CELL CARCINOMA TO PREDICT OVERALL SURVIVAL

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Presented By: Gregory Palmateer, BA

Introduction: Sarcopenia, defined as low muscle mass, is associated with worse surgical outcomes and increased mortality. However, there is a lack of consensus on standardized sarcopenia thresholds. We applied previously published sarcopenia thresholds to our racially diverse cohort of patients with renal cell carcinoma (RCC) and examined if they were predictive of worse overall survival (OS).

Methods: We retrospectively reviewed the Emory University prospectively maintained kidney cancer database for patients with any stage non-metastatic RCC who underwent nephrectomy between 2007 and 2022. Axial slices at the mid-L3 vertebral level were segmented for total muscle, cross-sectional psoas, and paraspinal muscle area. Skeletal muscle index (SMI, cm²/m²), linear muscle index (LMI, cm²/m²), and psoas muscle index (PMI, cm²/m²) were calculated after height adjustment. Sarcopenia status was determined using cohort medians and published sarcopenia thresholds. The association between sarcopenia thresholds and OS was assessed using univariable and multivariable Cox hazards models for each threshold.

Results: A total of 343 patients were included in the study. Median follow-up time was 41.5 months (IQR 17.8–61.7 months) with 62 (18.1%) mortality events. Table 1 describes the sarcopenia thresholds, prevalence, and results per model. Across models, sarcopenia prevalence ranged from 14% to 51.6% for SMI, 39.4% to 50.7% for LMI, and 0.6% to 0.9% for PMI. Thresholds by Zhang et al. (HR 2.41, p = 0.004), Higgins et al. (HR 1.78, p = 0.027), Derstine et al. (HR 2.51, p < 0.001), Fintelman et al. (HR 1.77, p = 0.027), and Noguchi et al. (HR 12.54, p = 0.003) were all associated with worse OS on univariable analysis. After adjusting for age, sex, race, ECOG, and obesity (BMI ≥ 30 kg/m²), only Desertine et al. (HR 2.11, p = 0.018) was independently associated with worse OS.

Conclusion: Thresholds by Desertine et al. were independently associated with worse OS in our cohort. Notably, thresholds by Higgins et al., which incorporated BMI, had a sarcopenia prevalence nearly twice as large as Desertine et al. and its association with worse OS approached statistical significance. Additional studies assessing threshold performance are needed before sarcopenia thresholds can be standardized.

Funding: N/A

Table 1. Univariable and multivariable Cox Hazards models for overall survival in patients with RCC according to proposed sarcopenia thresholds.

Study	Cohort Description	Parameter (cm ² /m ²)	Thresholds (male)	Thresholds (female)	Number Sarcopenic (%)	Univariable HR (95% CI)	p-value	Multivariable HR (95% CI)*	p-value
Prado et al., 2001	Canadian with lung or GI cancer	SMI	<52.4	<38.5	159 (46.4)	1.57 (0.95-2.61)	0.079	1.19 (0.62-2.24)	0.598
Featon et al., 2018; Postka et al., 2016	English/German literature review for weight loss (SR)	SMI	<55	<39	177 (51.6)	1.40 (0.84-2.33)	0.199	0.87 (0.46-1.62)	0.658
Marin et al., 2013	Canadian adults with lung or GI cancer	SMI	<33 (BMI >25) <43 (BMI <25)	<41	40 (14.0)	0.56 (0.22-1.40)	0.212	1.52 (0.45-5.12)	0.501
Zhang et al., 2017	Turkey, Italy, Australia, Belgium and Israel nursing homes (SR)	SMI	<41	<35	52 (13.2)	2.40 (1.32-4.41)	0.004	1.92 (0.96-3.79)	0.059
Higgins et al., 2021	American with localized RCC	SMI	<34 (BMI >30) <47 (BMI <30)	<47 (BMI >30) <38 (BMI <30)	157 (45.8)	1.79 (1.07-2.95)	0.027	1.58 (0.92-2.71)	0.096
Desertine et al., 2018	Healthy American (kidney donors)	SMI	<45.4	<34.4	81 (23.6)	2.51 (1.46-4.26)	<0.001	2.11 (1.14-3.91)	0.018
Fintelman et al., 2024 (25th percentile)	Healthy American (Framingham Heart Study)	SMI	<32.9 (age <45) <33.2 (age 45-54) <33.6 (age 55-64) <37.6 (age 65-74) <45.1 (age ≥75)	<38.5 (age <45) <37.2 (age 45-54) <36.8 (age 55-64) <35.4 (age 65-74) <34.8 (age ≥75)	121 (35.3)	1.77 (1.07-2.93)	0.027	1.54 (0.84-2.84)	0.163
Cohort Median SMI	American with non-metastatic RCC	SMI	<51.3	<39.1	173 (50.4)	1.20 (0.72-1.96)	0.488	1.17 (0.62-2.18)	0.62
Schmeusser et al., 2022	American with localized RCC	LMI	<33.3	<26.6	135 (39.4)	1.30 (0.79-2.15)	0.306	1.13 (0.66-1.93)	0.653
Jones et al., 2015	UK patients with colorectal carcinoma	PMI	<5.85	<3.85	3 (0.9)	5.08 (0.69-37.40)	0.111	3.45 (0.45-26.24)	0.231
Noguchi et al., 2020	Japanese males with localized cRCC	PMI	<4.096	<4.096	2 (0.6)	12.54 (1.64-95.73)	0.003	7.21 (0.99-57.66)	0.062
Cohort median LMI	American with non-metastatic RCC	LMI	<31.3	<26.6	154 (50.7)	1.14 (0.76-1.92)	0.565	0.96 (0.55-1.66)	0.877
Cohort Median PMI	American with non-metastatic RCC	PMI	<9.9	<7.2	173 (50.4)	1.62 (0.97-2.70)	0.067	1.29 (0.75-2.21)	0.348

Number of observations in the original data set = 343. Number of observations used = 337. *Multivariable models adjusting for age, sex, race, Eastern Cooperative Oncology Group status, and obesity.

**Hazard's confidence interval estimate. Abbreviations: hazard ratio (HR); confidence interval (CI); skeletal muscle index (SMI); linear muscle index (LMI); psoas muscle index (PMI); body mass index (BMI); renal cell carcinoma (RCC).

Poster #54

PERIOPERATIVE AND POSTOPERATIVE OUTCOMES OF OPEN PARTIAL NEPHRECTOMY (OPN) VS ROBOTIC-ASSISTED PARTIAL NEPHRECTOMY (RAPN): ANALYSIS OF A 1001 CASE SINGLE SURGEON SERIES

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Presented By: Amanda Elizabeth Kahn, MD

Introduction: To evaluate intraoperative and post-operative variables (including complications) of OPN and RAPN in a large single surgeon series

Methods: We retrospectively evaluated 1,001 consecutive patients who underwent an OPN or RAPN performed by a single surgeon. Intraoperative and postoperative data points were collected including warm ischemia time (WIT), operative time, length of stay (LOS), postoperative complication rates, readmission rates, and surgical pathology. Outcomes were analyzed using the Wilcoxon-rank sum test.

Results: 238 (23.8%) OPN and 763 (76.2%) RAPN were analyzed. There were significantly more patients with high RENAL nephrometry scores (10-12) in OPN compared to RAPN (23.7% vs 14.6%, $p=0.004$). Mean operative and WIT were significantly shorter for OPN vs RAPN (172 vs 193 minutes, $p < 0.001$ and 8 vs 19 minutes, $p < 0.001$ respectively). Clampless partial nephrectomy was performed significantly more often during OPN compared to RAPN (9.9% vs 2.4%, $p < 0.001$). Estimated blood loss and transfusion rates were greater with the OPN vs RAPN (800 vs 300 mL, $p < 0.001$ and 21.2% vs 5%, $p < 0.001$ respectively). There were no significant differences in intraoperative complications.

Median LOS was 2 days for the robotic cohort and 4 days for the open cohort ($p < 0.001$). Median tumor size was significantly larger in the open cohort (4.2 [range 0.8-13.] vs 2.8 [range 0.5-12.2] centimeters, $p < 0.001$). There was no significant difference in postoperative readmission rates between OPN and RAPN (11.5% vs 8.3%, $p=0.143$). Postoperative Clavien-Dindo complication rates grade 3a and higher were 10 in the OPN cohort (4.2%) compared to 33 in the RAPN cohort (4.3%).

Conclusion: OPN was performed on masses with significantly higher RENAL nephrometry scores but still resulted in significantly shorter operative and WIT compared to RAPN. Blood transfusion rates were higher with OPN. OPN resulted in longer hospital stay and similar rates of grade 3 or higher complications

Funding: N/A

Poster #55

COMPARING RENAL CELL CARCINOMA WITH TUMOR THROMBUS ACROSS NORTH AMERICA, CENTRAL/SOUTH AMERICA, AND SOUTH KOREA USING THE INTERCONTINENTAL COLLABORATION ON RENAL CELL CARCINOMA DATABASE

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Presented By: Maxwell Louis Sandberg, MD, MS

Introduction: Renal cell carcinoma (RCC) with a tumor thrombus (RCC-TT) carries a high morbidity and mortality. Though there are few studies, survival from RCC has been examined across the world with results tending to point towards equivalent overall survival (OS) with worse cancer-specific survival (CSS), access to clinical trials, and/or guideline-based care in lower-income countries and regions of the world. With multi-institutional collaboration, the purpose of this study was to analyze geographical differences of RCC-TT between patients in North America (NA), Central/South America (CSA), and South Korea.

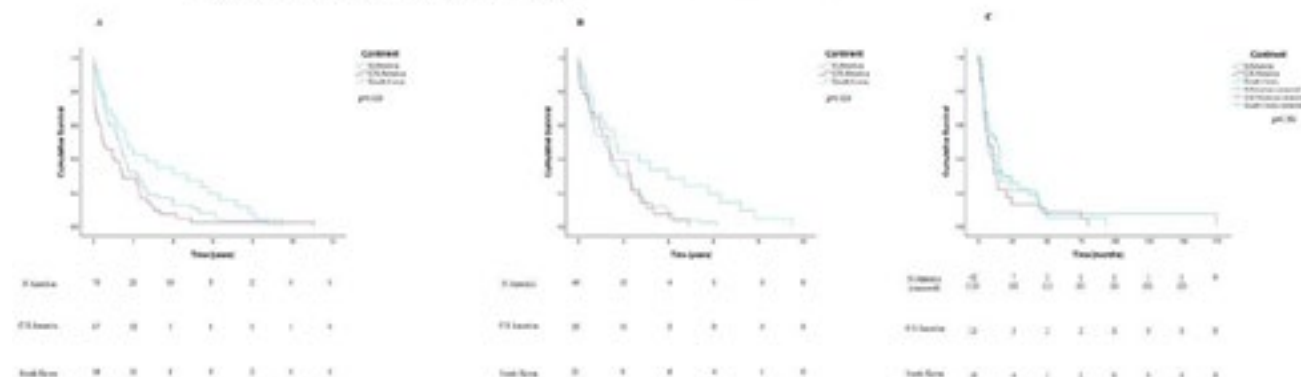
Methods: Patients with RCC-TT who underwent nephrectomy plus thrombectomy were retrospectively analyzed. Patients were from NA, CSA, and South Korea. All comparisons were done based on the region where a patient had their surgery and follow-up. Chi-squared test, analysis of variance, and Kaplan-Meier survival with log-rank test were used.

Results: A total of 478 patients were included, 212 from North America, 209 from Central/South America, and 57 from South Korea. Of note, thrombus level was different using the Neves classification system between regions ($p < 0.001$), with a greater thrombus level in CSA. Surgical approach differed, with laparoscopic cases done most often in CSA and robotic in NA ($p < 0.001$). Tumor grade was lowest in South Korea ($p < 0.001$) and stage ($p < 0.001$) greatest in CSA. Metastasis-free survival was equivalent by region ($p > 0.05$). Use of systemic therapy was greater in NA and South Korea compared to CSA ($p < 0.001$). OS was greater in South Korea compared to CSA on Kaplan-Meier analysis (Figure 1; $p = 0.026$). CSS was greater in South Korea relative to NA and CSA (Figure 1; $p = 0.026$).

Conclusion: Patients from NA, CSA, and South Korea diagnosed with RCC-TT do not present the same and have different outcomes peri-/post-operatively. This includes important variables which have impacts on patient morbidity and mortality. Considering increased efforts on health equity in urology, the causes of these differences call for further investigation.

Funding: N/A

Figure 1. Kaplan-Meier Survival Analysis by Geographical Region. The following figure represents a Kaplan-Meier survival analysis comparing North American patients, Central/South American patients, and South Korean patients. The study included 478 patients. The proportion of patients surviving at each time interval is shown on the y-axis and time (months) on the x-axis. Log-rank significance comparisons are shown below the figure legends. Numbers at risk tables are also provided below the graphs with one configuration in parentheses where applicable. Patients without a specific date for a diagnosis of recurrence after surgery are included from analysis for graphs C.



Poster #56

ROBOTIC SALVAGE PARTIAL NEPHRECTOMY FOR TUMOR RECURRENCES AFTER ABLATION

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Atrium Health Wake Forest Baptist

Presented By: Adam Bret Cohen, BS, MD

Introduction: For T1 renal masses, primary management with multiple thermal ablations has similar local control rates to partial nephrectomy. However, single ablations have worse local recurrence rates that necessitate challenging salvage interventions. In our study, we investigated the safety and oncologic efficacy of robot assisted salvage partial nephrectomy (PN) for patients with local recurrence of tumor at site of prior cryoablation (cryo) or radiofrequency ablation (RFA).

Methods: We queried our single-center database to identify patients for inclusion in this retrospective case series. Patients required surveillance with cross-sectional imaging and had to undergo prior cryoablation or RFA with subsequent robot assisted salvage PN. Interventional radiology evaluation required to determine lack of candidacy for repeat ablation. Primary outcomes were safety, reported as perioperative Clavien-Dindo complications, and oncologic efficacy. Limitations include no comparative arm.

Results: From 2017 to 2023, we identified ten patients (Cryo, N=8; RFA, N=2) with local tumor recurrence at a median of 24- months after ablation for the index lesion (median 2.3 cm diameter). At site of prior ablation, the patient's tumor recurrence was median 2.7 cm. Robot assisted salvage PN was performed with 22-minute median warm ischemia time after renal artery trunk clamping (one patient with artery and vein clamping) and 161-minute median OR time. Pathology was clear cell RCC for all ten patients with negative surgical margins. No 90-day C.D. complications were reported. Median follow up was 16-months and only one patient (10%) had another local recurrence at PN site 31-months post-op.

Conclusion: Our data suggest that salvage partial nephrectomy via a robot assisted approach may be a feasible and safe management option for patients with kidney tumor recurrences after failing ablative management.

Funding: N/A

Kidney-Benign and Malignant Poster Session

Poster #58

ARE ABNORMAL VASECTOMY PATHOLOGY REPORTS PREDICTIVE OF PROCEDURAL FAILURE?

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Presented By: Max David Sandler, BS

Introduction: Technical errors can occur during vasectomy, such as difficulty identifying and transecting the vas deferens. While not required by American Urological Association guidelines, evidence suggests most urologists order pathologic confirmation of a correctly excised vas. However, if pathology reports fail to indicate a completely transected vas, it may lead to uncertainty regarding the success of the procedure. This study aims to explore the relationship between abnormal pathology reports and rates of vasectomy failure to determine whether such reports should be a cause for concern and impact clinical decision making.

Methods: We conducted a retrospective chart review on males aged ≥ 18 who underwent vasectomy for the first time between January 2004 and January 2024. Demographics, post-operative pathology reports, provider documentation such as operative notes, and semen analysis (SA) results were collected. Any pathology report which failed to identify a complete cross section of either the left or right vas deferens was considered abnormal. Vasectomy failure was defined as presence of motile sperm or $\geq 100,000$ nonmotile sperm on SA at ≥ 3 months post-vasectomy. Descriptive statistics were employed for analysis.

Results: For 2,446 vasectomies with pathology reports, 2,399 (98.1%) reports were normal; 1330 followed up for SA, and 55 were failures (4.1%). Conversely, 47 (1.9%) had an abnormal report (Table 1). Of these, 31 patients followed up for SA; success rate was 87.1% ($N = 27$) with a failure rate of 9.7%, and one was found to have sperm on SA < 3 months after vasectomy but did not return for follow up. The remaining 3 of 31 were failures secondary to technical errors in transecting the vas on one side. Pathology reports stated "benign nerve and fibrovascular tissue", "artery", and "no vas deferens lumen is visualized". In all three, pathology identified complete cross section of the contralateral vas.

Conclusion: While pathology reports may provide early feedback, they do not reliably predict vasectomy failure. Semen analysis testing remains the primary measure of success. Our research examining outcomes over a 20-year period provides long-term data from a large cohort, potentially supplementing clinical practice guidelines. Future, prospective research could explore long-term outcomes of patients with abnormal pathology who did not follow up for SA.

Funding: N/A

	Total With Pathology	Normal Pathology	Abnormal Pathology
	2446	2399	47
Follow-up SA	1361 (55.6%)	1330 (55.4%)	31 (66.0%)
Failure on SA	58 (4.3%)	55 (4.1%)	3 (9.7%)

Table 1. Outcomes of vasectomy based on post-procedural histological report findings.

Poster #59

LONG TERM SAFETY OF FILLING HYDROPHILIC COATED IMPLANTS WITH AN ANTISEPTIC: THE KINDER EGG EFFECT WITH IRRISEPT IN TITAN HYDROPHILIC COATED IMPLANTS

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¹EL CAMINO HEALTH, ²MONTEREY MENS HEALTH, ³WK ADVANCED UROLOGY

Presented By: Gerard D. Henry, MD

Introduction: Biofilms affect virtually all implantable materials in the body including penile implants. The risk of infection after mechanical failure revision surgery is much higher (7-18%) than after virgin implant operations (1-3%). The most common point of failure for Titan® implants, and almost exclusively, is the tubing. The fluid leaks out and can usually be found around the pump and tubing within the fibrous capsular sheath at the time of revision surgery. Irrisept® has been evaluated by the manufacturer for up to 36 months for shelf life stability without any deterioration of efficacy. So, can we reduce infections during revision surgery by affecting the biofilm pre-operatively?

Aim: To evaluate the components of a Titan® hydrophilic coated implant after priming and filling with Irrisept® after 6 months.

Methods: Titan® Classic and Titan® Touch penile implants were filled using Irrisept® and were stored for 6 months in a saline bath at 98.6°F (37°C) to simulate body temperature environment. Each implant was cycled on a weekly basis and evaluated for any dysfunctionality. Three (3) Titan® Classic 20cm implants (P/N ES89202400) and 3 Titan® Touch 20cm implants (P/N ES29202400) were used for testing. Samples were assembled with 75cc reservoirs (P/N ER80752400) and filled using Irrisept® solution (Table 1). Following the 6-month period, the Irrisept® was drained aseptically from each implant. Each implant was dissected and evaluated by Coloplast engineers for crystallization or any untoward effects from the Irrisept®.

Results: No dysfunctions were observed during weekly cycling of the implants throughout the 6-month period. All implants inflated and deflated as intended. Images are shown below of a Titan® Classic and Titan® Touch pump (Figures 1 and 2). No crystallization was observed. There were no anomalies, irregularities, corrosion, or material degradation of any kind found within the pump bulb, reservoir, tubing, cylinder bladder, or pump body channels.

Conclusion: During this 6-month period, no dysfunctions were observed across all implants. Filling Titan® implants with Irrisept® may serve as an adjunct to other maneuvers to help reduce the relatively high rate of penile implant infections after revision surgery for mechanical failure.

Funding: Coloplast

Table 1. Product Scope

Catalog Number	Description
Titan Classic Pump	
ES85XX	Titan Infra Zero Ang
ES89XX	Titan Scrotal Zero Ang
EN85XX	Titan Narrow Infra Zero Ang
EN89XX	Titan Narrow Scrotal Zero Ang
517770	Titan Pump
Titan Touch Pump	
ES28XX	Titan Touch Infra Zero Ang
ES29XX	Titan Touch Scrotal Zero Ang
EN28XX	Titan Touch Narrow Infra Zero Ang
EN29XX	Titan Touch Narrow Scrotal Zero Ang
517750	Titan Touch Pump
Reservoir	
ER80752400	Titan Reservoir, Cloverleaf Design, 75cc

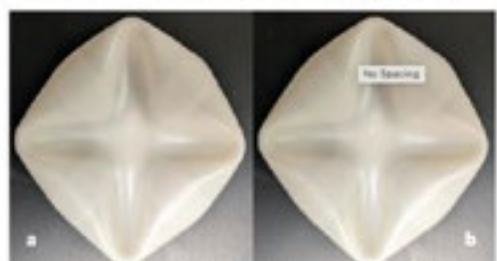


Figure 2. 75cc Cloverleaf reservoir inverted after attachment to Titan® Classic (a) and Titan® Touch (b) pump for 6 months.

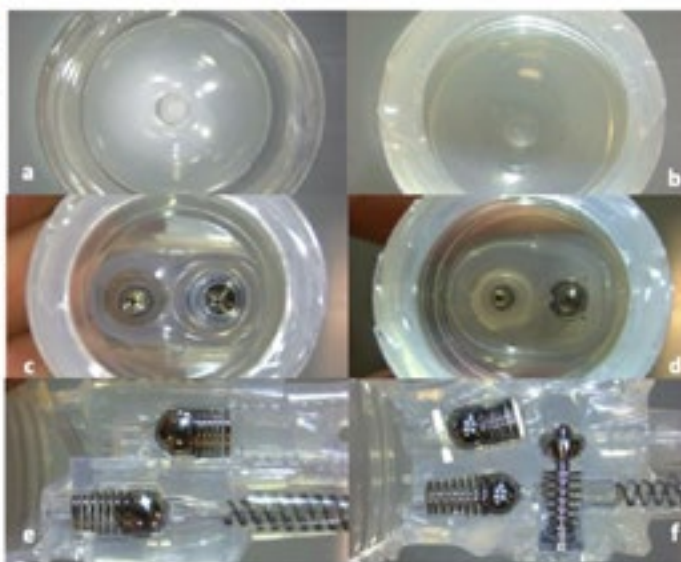


Figure 1. Detailed evaluation of Titan® Classic (a, c, e) and Titan® Touch (b, d, f) Pumps

Poster #60

DECOMPRESSION EPIDIDYMECTOMY- A SAFE AND EFFECTIVE APPROACH TO LOCALIZED SCROTAL CONTENT PAIN

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University of Florida

Presented By: Chase William Mallory, MD

Introduction: Epididymectomy is an underutilized, yet effective intervention for scrotal content pain localized to the epididymis. Referral to a surgeon experienced in scrotal surgery is often valuable given possible injury to the testicle or gonadal vasculature which reside close to the epididymis. At our tertiary referral center, epididymectomy is offered to men with pinpoint, reproducible, epididymal tenderness who present for scrotal content pain refractory to conservative management. We describe a novel surgical approach and outcomes to minimize complications and maximize patient pain relief.

Methods: Patients were assessed for chronic scrotal content pain who underwent decompression epididymectomy at a tertiary referral center from July, 2022 to August, 2024. Pain had to be present for greater than 30 days, reproducible on exam and localized to the epididymis. Patients were assessed for laterality, prior surgeries, origin of pain, post-operative pain assessment and 90-day complications.

Results: Thirty men underwent decompression epididymectomy. Mean time to initial follow up was 3.9 weeks. Scrotal content pain improved 93.3% (n=28), resolved 36.6% (n=11) and was unchanged in 6.6% (n=2) of men. Lack of pain improvement was associated with bilateral epididymectomy and previous chronic pain medication use. No patients demonstrated increased pain at initial follow up. No complications were noted 90 days post-operatively. Pain response did not correlate with prior scrotal surgical history. On subgroup analysis, 20 men underwent epididymectomy alone, without concomitant scrotal surgery. All patients had improvement in pain, with 40.0% (n=8) noting resolution in pain at time of initial follow up (4.7 weeks).

Conclusion: Our case series demonstrates that decompression epididymectomy is a safe and effective approach to epididymal resection for scrotal content pain. Our approach may help minimize potential complications and risk to the gonadal vessels, while maximizing pain relief.

Funding: N/A

	Epididymectomy (n=30)	Epididymectomy only (n=20)
Average follow up (wks)	3.9	4.7
90-Day complications	-	-
Pain Post-op (%)		
Resolved	36.6	40.0
Improved	93.3	100.0
Stable	6.6	-
Worsened	-	-

Poster #61

AN UPDATE ON THE EJACULATORY DYSFUNCTION ASSESSMENT USING AN EJACULATION SCORE QUESTIONNAIRE IN A SOUTH FLORIDA COHORT

Julian Cruz¹, Anthony Farias¹, Noah Defauwes¹, Pushan Prabhakar¹, Jorge Caso², Daniel Martinez¹

¹Miami Cancer Institute, ²Tulane University

Presented By: Julian Andres Cruz, Bachelor of Science

Introduction: Traditionally, male sexual health has focused heavily on issues such as erections and orgasms. However, this has often led to neglecting issues related to ejaculation. To address this gap, our pilot study presents the Ejaculation Score, a continuous assessment tool that aims to evaluate the ejaculatory process. Although ejaculatory dysfunction is a common problem for men, it has not been given sufficient consideration or attention.

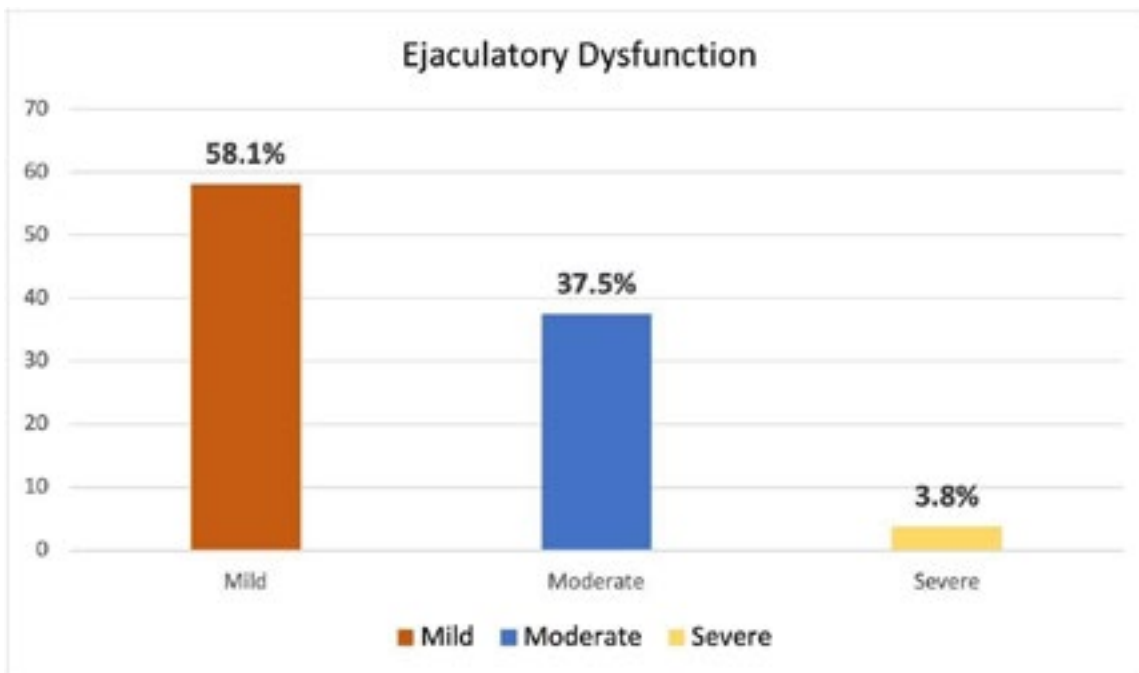
Methods: To assess ejaculatory dysfunction, we created a detailed questionnaire known as the ejaculation score. It was designed in order to gain a deeper understanding of these issues and address them in a more effective manner.

Results: A total of 221 patients completed the self-administered questionnaire. The average age of the participants was 53 years, with a range from 24 to 83 years old. Of all these, 160 patients provided responses that contributed to the final ejaculation score. According to the results, 93 patients (58.1%) were categorized with mild ejaculatory dysfunction, 60 patients (37.5%) had moderate ejaculatory dysfunction, and 6 patients (3.8%) experienced severe ejaculatory dysfunction. One patient reported no ejaculatory dysfunction at all.

Conclusion: In summary, the Ejaculation Score pilot study represents a notable advancement in male sexual health. By focusing on the ejaculatory process, this evaluation tool highlights an essential aspect of male sexual function that has not received adequate attention. Given the widespread nature of ejaculatory dysfunction among men, creating a thorough assessment tool that is also dependable is vital for understanding and addressing these issues effectively.

Figure 1: Ejaculation Score breakdown among all patients (n = 221)

Funding: N/A



Poster #62

NO RIGID RULES: VARIABILITY IN QUALITY OF HEALTH INFORMATION AMONGST DIRECT-TO-CONSUMER PHARMACIES

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¹Duke University Department of Urology, ²Washington University School of Medicine in St. Louis

Presented By: Hasan F. Jhaveri, MD

Introduction: In recent years, direct-to-consumer (DTC) telehealth has become increasingly popular among men seeking treatment for erectile dysfunction (ED). In addition to diagnosis and treatment, these sites claim to offer information for patients on a variety of men's health topics. Qualitative aspects of these sites have seldom been studied using validated tools. We systematically evaluated the quality, accessibility, usability, and reliability of the five most popular DTC men's telehealth platforms.

Methods: We identified the five most popular DTC men's telehealth platforms by unique annual visitors using SEMRush, an online tool for comparing web traffic. Only DTC platforms offering ED treatment were eligible for inclusion. We then analyzed the reliability, quality, and readability of patient information on each site using a series of validated metrics for online health information (JAMA, DISCERN, Flesch Readability Score, LIDA instrument).

Results: Five platforms (Hims, Roman, Lemonaid, BlueChew, Numan) were included in the study. Each website offered fully virtual, asynchronous care as well as information for patients on etiologies of ED and an explanation of treatment options. DISCERN reliability scores were highest for the largest two platforms (Hims, Roman), although all sites met the score cutoff for "fair" reliability. JAMA scores varied widely between platforms, with only Hims meeting all four criteria for quality. LIDA accessibility scores were also higher for the largest platforms, while reliability and supplement scores were universally poor. The readability of written content on all sites was deemed "fairly difficult" or "difficult" by the Flesch readability test.

Conclusion: We found wide variation in the reliability, quality, and accessibility of health information on the five most popular DTC men's telehealth platforms. Patients seeking ED treatment online are at risk for receiving incomplete or inaccurate information, potentially in violation of the Food and Drug Administration's (FDA) minimum standards for communication and incongruent with the AUA's accepted guidelines. Urologists should be aware of the existence of DTC platforms and prepared to counsel patients on the uncertainties associated with their use.

Funding: N/A

	Maximum	Hims	Roman	BlueChew	Lemonaid	Numan
JAMA						
Authorship	1	1	1	0	0	1
Attribution	1	1	0	0	0	1
Disclosure	1	1	1	0	1	1
Currency	1	1	1	0	0	0
LIDA						
Accessibility	63	61	61	39	30	41
Usability	54	42	45	42	42	42
Reliability	27	19	17	11	14	13
Supplement	24	13	13	8	14	12
DISCERN						
	80	61	57	39	47	55
Flesch						
	100	59.6	37.6	53	54	48.1

Poster #63

PURGING OF CANCER CELLS FROM PROPAGATED SPERMATOGENIAL STEM CELLS PRIOR TO AUTO TRANSPLANTATION TO RESTORE FERTILITY

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Presented By: Kimberly Waggener, MD

Introduction: Childhood cancer treatment success has increased significantly over the past few decades, thus underscoring the need for reliable fertility preservation methods for patients undergoing gonadotoxic therapies. Spermatogonial stem cell (SSC) cryopreservation before initiating chemotherapy or radiation and re-transplantation later in life has been proposed as a fertility restoring option in childhood cancer survivors. One concern is the possibility of malignant cell contamination in testicular tissue biopsies, and reintroduction of cancer following treatment. According to a systematic review of over 900 manuscripts, only a limited number of studies have focused on techniques to detect and purge cancer cells prior to SSC transplantation; unfortunately, none of these methods were successful. This study explored the possibility of purging cancer cells for potential future clinical applications

Methods: SSCs and MOLT4 acute lymphoblastic leukemia (ALL) cells were co-cultured in StemPro Complete medium using different concentrations of ALL cells (0.05%, 0.5%, 5%, and 50% MOLT4 cells). Samples were retrieved from patients with confirmed malignant infiltration of testicular tissue. Medium was discarded after each passage to remove unattached MOLT4 cells. Following the final passage, the MOLT4 contamination level was quantified using various methods (flow cytometry, in-vivo imaging system, dPCR). Malignant cells were purged from the culture using fluorescence-activated cell sorting (FACS) and selective culturing methods. The efficacy of both purifying techniques was confirmed.

Results: Our preliminary results indicate that while MOLT4 cells propagated rapidly in StemPro medium, refreshing SSCs culture without centrifugation (spin-negative) does not significantly affect germ cell count, and thus is a reliable option for removing MOLT4 cells suspended in SSC culture, which are adherent to the culture dish. CD1a digital PCRs showed no-amplification in SSC alone but high-amplification in MOLT-4 alone and SSC/MOLT-4 co-culture and is therefore reliable and sensitive for detection of residual MOLT4 ALL cells in a sample. Our study showed co-culturing and sorting using either FACS or selective culturing were effective in purging residual malignant cells from patient samples.

Conclusion: We were able to establish methods for removing cancer cells that may have relevance to the In Vitro propagation of human SSC for auto-transplantation to preserve fertility.

Funding: N/A

Poster #64

TRENDS IN VARICOCELE SURVEILLANCE AND SURGICAL INTERVENTION IN CHILDREN AND ADOLESCENTS

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Presented By: Isis Sweeney

Introduction: Varicocelectomy is often recommended in the setting of abnormal semen analyses, testicular atrophy, or associated testicular discomfort. Managing varicoceles in the adolescent populations is less clear because of the unknown impact on fertility. Expert consensus recommends adolescent patients diagnosed with varicocele undergo further evaluation to assess testicular growth. Varicocele surveillance trends including prevalence, length of follow-up, and indications for intervention are underreported. We report our experience with varicocele surveillance and the triggers for surgical intervention in the pediatric population at our institution.

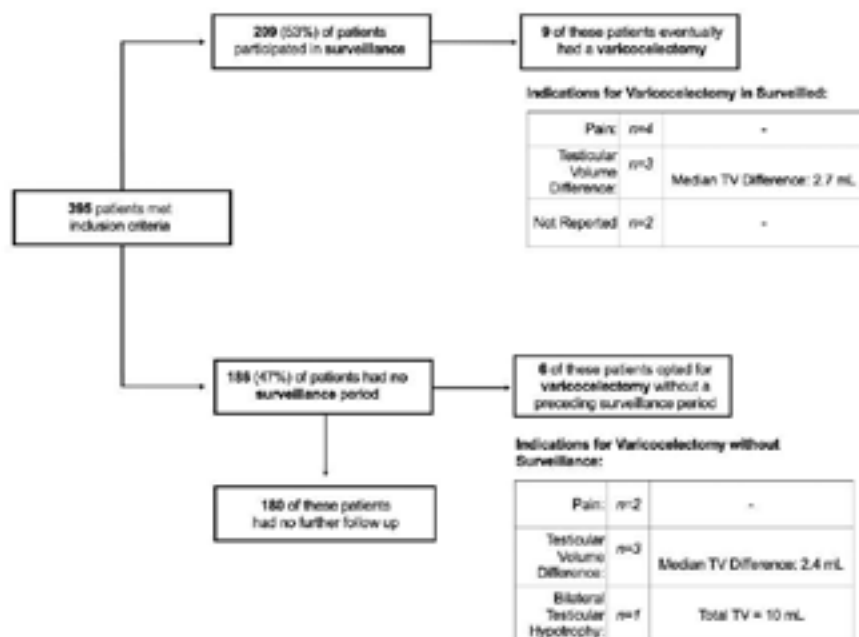
Methods: A single institutional retrospective review of electronic medical records from a tertiary referral center was performed. We evaluated pediatric patients ≤ 18 years old diagnosed with varicocele from 5/1/1993 to 5/31/2023. Varicocele diagnosis was identified using ICD 9 and 10 codes. Surveillance was defined as having at least one additional encounter for varicocele evaluation following the initial diagnosis. Testicular volumes were obtained by scrotal ultrasound and clinical assessment.

Results: 96% of patients (380 of 395) had no varicocelectomy. 209 (53%) patients participated in surveillance. 9 of these patients eventually had a varicocelectomy. Indications for surgery in patients being surveilled included testicular pain (n=4), testicular volume difference (n=3 with a median testicular volume difference of 2.7 mL), and 2 patients with no reported indication.

186 (47%) patients had no surveillance period, 6 of which had a varicocelectomy. Indications for surgery in these patients included testicular pain (n=2), testicular volume difference (n=3 with a median testicular volume difference of 2.4 mL), and bilateral testicular hypotrophy (n=1) with a total testicular volume of 10 mL. The median age at diagnosis was 15.05 years in the surveillance group and 15.5 years in the non-surveillance group.

Conclusion: Only half of children and adolescent patients participated in surveillance of their varicocele. Rates of boys proceeding to varicocelectomy were very low and did not differ between patients seen at the primary visit and those who were followed for their varicocele. Our findings highlight the importance of maximizing patient counseling about varicoceles at diagnosis. Surveillance of young males with varicoceles requires patient, guardian, and provider education to counsel patients who may not otherwise undergo evaluation until infertility is encountered.

Funding: N/A



Poster #65

COMING UP WITH THE ANSWER: IS RETROGRADE EJACULATION ASSOCIATED WITH PREVIOUS PHOSPHODIESTERASE-5 INHIBITOR USE?

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Presented By: Christopher Zhou

Introduction: Retrograde ejaculation (RE) constitutes a disruption and reversal in the antegrade seminal pathway, often leading to sexual dissatisfaction and possible subfertility in men across all ages. Alpha adrenergic blockers are used to treat benign prostatic hyperplasia (BPH) and psychotropic medications are established causes of RE. Phosphodiesterase 5 inhibitors (PDE5Is) such as tadalafil and sildenafil are commonly prescribed to treat erectile dysfunction and lower urinary tract symptoms (LUTS) associated with BPH. However, there is limited literature regarding the relationship between PDE5I use and subsequent retrograde ejaculation. The purpose of this study was to elucidate the relationship between retrograde ejaculation and the usage of PDE5Is.

Methods: An IRB-approved retrospective review was performed at a tertiary referral center on men who underwent a retrograde semen analysis and of men with an ICD-9, 10 diagnosis of retrograde ejaculation in the electronic medical record (EMR). Exclusion criteria included men without retrograde ejaculation based on semen analysis or evaluation of the EMR. Baseline patient demographics included comorbidities, medications, and PDE5I usage. Data were analyzed using descriptive statistics and chi-square tests.

Results: Review demonstrated 98 male patients with a mean age of 51.68 ± 15.99 years, of which 26 (26.5%) were previously exposed to PDE5Is at the time of RE diagnosis. Men who were previously prescribed PDE5Is were more likely to be older at time of diagnosis with RE (mean age 58.19 ± 13.31 , $p=0.016$). There were no statistically significant differences in BMI, race, ethnicity, smoking status, or presence of diabetes or hypertension between men with previous PDE5I usage versus those without ($p>0.062$). Of the men exposed to PDE5Is at any point, 34.6% were on sildenafil, 30.8% were on tadalafil, and 34.6% were on a combination of the two. There was no significant difference between concomitant alpha blocker use or use of psychotropic medications between men who had taken PDE5Is versus those who had not ($p>0.088$).

Conclusion: In our findings, a relatively small fraction of patients was shown to have previous PDE5I exposure at the time of diagnosis of retrograde ejaculation. These findings suggest PDE5Is may not be associated with incidences of RE. Further prospective studies to navigate this relationship are warranted.

Funding: N/A

	ICD 9/10 Diagnosis (N=98)	Semen Analysis Diagnosis (N=5)	Total (N=98)
PDE5I use at time of Diagnosis			
Yes	16 (17.2%)	3 (60.0%)	19 (19.6%)
No	77 (82.8%)	2 (40.0%)	79 (80.4%)
History of PDE5I Exposure			
Yes	23 (24.7%)	3 (60.0%)	26 (26.5%)
No	75 (75.3%)	2 (40.0%)	77 (75.5%)
Concomitant Alpha Blocker Use			
Yes	39 (41.9%)	0 (0.0%)	39 (39.8%)
No	54 (58.1%)	5 (100.0%)	59 (60.2%)
Psychotropic Medication Use			
Yes	52 (55.9%)	2 (40.0%)	54 (55.1%)
No	41 (44.1%)	3 (60.0%)	44 (44.9%)
Smoking Status			
Never Smoker	41 (44.8%)	2 (40.0%)	43 (44.3%)
Former Smoker	42 (45.7%)	2 (40.0%)	44 (45.4%)
Current Smoker	9 (9.8%)	1 (20.0%)	10 (10.3%)
Ethnicity			
Unknown	1 (1.1%)	0 (0.0%)	1 (1.0%)
Non-Hispanic or Latino	78 (84.8%)	4 (80.0%)	82 (84.5%)
Hispanic or Latino	13 (14.1%)	1 (20.0%)	14 (14.4%)
Race			
White	53 (57.8%)	2 (40.0%)	55 (56.7%)
Black or African American	28 (30.4%)	3 (60.0%)	31 (32.0%)
Asian	1 (1.1%)	0 (0.0%)	1 (1.0%)
Other	19 (20.9%)	0 (0.0%)	19 (20.3%)
BMI			
Mean (SD)	28.230 (5.522)	23.588 (4.622)	27.988 (5.548)
Range	16.90 - 47.90	18.40 - 30.27	16.95 - 47.90
History of Diabetes			

Poster #66

PRESENCE AND ETIOLOGY OF ERECTILE DYSFUNCTION IN PEYRONIE'S DISEASE: TESTING THE AUA GUIDELINE RECOMMENDATIONS ON THE COLOR DUPLEX DOPPLER ULTRASOUND

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Presented By: Alan Perry, BA

Introduction: Peyronie's disease (PD) and ED can coexist, affecting the patient's perception of erectile function. The AUA guidelines recommend intracavernosal injection, with or without doppler ultrasound, prior to invasive interventions. Our objective was to assess vascular erectile integrity in patients with PD.

Methods: Patients who underwent color doppler duplex ultrasound (CDDU) at our institution from August 2004 through June 2024 were retrospectively reviewed. CDDU findings such as peak systolic velocities and resistive indices were recorded following injection of low dose Alprostadil and again after a period of privacy and visual sexual stimulation. Among patients diagnosed with PD, comparisons of patient characteristics between those with and without a diagnosis of ED were made using ANOVA (continuous characteristics) or Chi-squared test (categorical characteristics).

Results: Of men that underwent CDDU, 1468/2452 (60.%) were diagnosed with PD. Among those with PD, 327 (22%) were diagnosed with PD only and 1141 (78%) were diagnosed with both PD and ED. Those with PD only had lower BMI (27.1 vs 28.4), were less likely to have hypertension (37% vs 46%), less likely to have Diabetes Type 2 (16% vs 31%), less likely to have used PDE-5 inhibitor (39% vs 82%), and less likely to have failed to a PDE-5 inhibitor (30% vs 73%) compared to men with both PD and ED, all $p < 0.005$. Average SHIM scores were higher among those with PD only compared to PD and ED (19 vs 11). CDDU diagnoses for men with PD and ED were: AI (32%), CVOD (43%), mixed vascular ED (26%).

Conclusion: In a large cohort of men with PD we identified multiple potential risk factors for erectile dysfunction. CDDU of men with PD demonstrates that three-quarters of patients have some form of vascular erectile dysfunction. Counselling for surgical interventions should include a Doppler assessment to ensure patients are appropriately triaged to PD-corrective surgery versus penile implant. Future AUA Guidelines should reclassify the recommendation for evidence-based testing prior to surgical interventions from 'Expert Opinion' to 'Clinical Principle'.

Funding: N/A

Poster #67

EFFECTIVENESS OF THE “MINI-JUPETTE” SLING, USED ALONGSIDE AN INFLATABLE PENILE PROSTHESIS, FOR MALE URINARY INCONTINENCE

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Presented By: Kashish Khanna, MD

Introduction: Inflatable penile prosthesis (IPP) placement along with the mini-jupette can reliably treat climacturia and mild stress urinary incontinence and erectile dysfunction (ED) in males post radical prostatectomy (RP). The mini-jupette sling additionally has been shown to be inexpensive, safe, and a durable option to treat urinary incontinence in these men. However, only limited studies are available in literature which utilize a standard method to validate this improvement.

Aim: To measure the improvements in male urinary incontinence after utilization of mini-jupette sling and IPP in patients undergoing RP. To quantify improvement in erectile function post procedure as compared to standard IPP implantation.

Methods: All patients who underwent the “mini jupette” sling, alongside the IPP starting August 2022 to July 2024 were included in this cross-sectional study. The patients provided responses to a telephone interview about post-operative outcomes following the mini-jupette and IPP procedure using a standard questionnaire which included the Satisfaction Survey for Inflatable Penile Implant (SSIFI) score. The response to improvement in incontinence were expressed qualitatively as the presence or absence of climacturia and quantitatively reported as number of pads used per day prior to and after the surgery. Erectile function was assessed by the International Index of Erectile Function (IIEF) Questionnaire.

Results: Total 24 patients were included, 22/24 patients showed reduction in the number of pads used per day post procedure. Of these 46% were completely dry. 11/15 patients reported resolution of climacturia, 1/15 reported improvement and 3/15 continued to have climacturia post op. The SSIFI score ranged from 51 to 77 and was consistent with similar functional results and satisfaction as standard IPP implantation. All patients reported significant improvement in erectile function, 5/11 had a post op IIEF score of 25.

Conclusion: The “mini-jupette” sling, used alongside an inflatable penile prosthesis is an effective procedure in patients post radical prostatectomy to reduce climacturia and mild stress urinary incontinence as well as improve erectile dysfunction through a single surgery.

Funding: N/A

Poster #68

NOVEL IN VIVO PATIENT-DERIVED PEYRONIE'S XENOGRAFT MODEL RECAPITULATES ACCURATE HUMAN CURVATURE IN IMMUNOCOMPROMISED RATS

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Tulane University

Presented By: Garrett Joseph Brinkley, PhD, MD

Introduction: Peyronie's disease (PD) is a psychologically debilitating and physically limiting condition with ~ a 4% prevalence in the adult male population. Few non-surgical options exist, partly due to the limited pool of validated animal models available for preclinical research. The available models do not mirror the origin of the human PD tissue microenvironment but simulate TGF-beta plaque pathophysiology. To address this issue, for the first time, this study aimed to form a translational preclinical PDX animal model system mimicking human PD.

Methods: In compliance with intuitional approved protocols and appropriate consent, fresh Peyronie's plaques were excised from human patients. Human plaques were subsequently implanted into the tunica albuginea of an immunocompromised (nude) rat. Rodents were then followed for three or four months. Curvature was then assessed using saline injected through a 28 gauge needle into the lateral side of the corpora cavernosa at the base of the penis. Curvature was measured from the midline proximal to the distal aspect of the point of maximal curvature. Penile tissue was then harvested, and the specimen was fixed in formalin, sectioned, and then stained with hematoxylin and eosin (H&E).

Results: A total of six rats were implanted with PDX, 5 of which survived for evaluation. Artificial erection with normal saline demonstrated a 48.7° curvature for 2 of the rats (Figure 1). 2 rats still have not been evaluated. The plaque was not implanted correctly in one of the experiments, so it was used as a sham experiment. H&E staining demonstrated persistent plaque on the dorsolateral aspect of the penial shaft adjacent to the dorsal vein and nerve bundle. ICH, Trichrome, and TUNNEL assay are currently pending.

Conclusion: Peyronie's disease is challenging to treat with standard care. There is an imminent need to validate available therapies better, optimize current strategies, and provide new treatment options. This study described a novel PDX model for PD that recapitulates the in vivo plaque microenvironment. This pilot study validated the feasibility of developing a PDX animal model for human PD with curvature. Additional optimization analysis warrants further investigation in future studies.

Funding: N/A

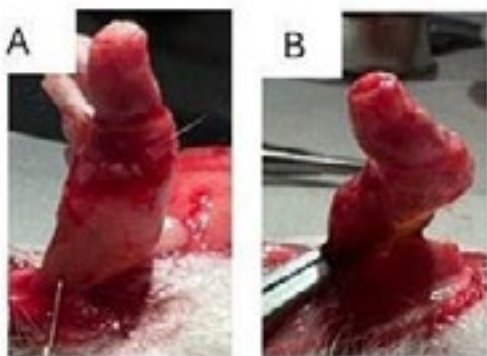


Figure 1: Comparison of penile curvature in collagen plaque implantation after 4 months
A) Sham Surgery (plaque removed PDX) B) Peyronie's plaque placed midshaft

Poster #69

THE USE OF URETHRAL BULKING WITH BULKAMID FOR URINARY INCONTINENCE AFTER PROSTATE TREATMENT: A RETROSPECTIVE CASE SERIES

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Presented By: Ketch Cowan, BS, MD

Introduction: Urinary incontinence after prostate treatment (IPT) is a highly morbid and feared iatrogenic complication that plagues the urological community. The role of transurethral bulking within this population remains unclear. The most recent AUA/SUFU IPT guidelines state that efficacy is low and cure is rare with urethral bulking after prostate treatment, but recognize there is a lack of studies exploring both the effectiveness and feasibility of all available agents currently on the market. The use of several bulking agents has been examined in this context, however, none have explored the feasibility of Bulkamid®. This pilot study assessed the safety and effectiveness of transurethral bulking with Bulkamid® for the treatment of IPT.

Methods: A retrospective chart review of patients who underwent transurethral bulking with Bulkamid® at our institution in the last year. All patients had previously undergone surgery on the prostate with subsequent SUI diagnosed after the procedure. Severity of SUI was quantified before and after the procedure with pads used per day (PPD). Intraoperative factors measured include operative time and volume of injection. Patient satisfaction, postoperative PPD, and complications were reported at a follow-up one month after surgery.

Results: 5 patients with IPT underwent transurethral bulking with Bulkamid® at our institution. Of these patients, the average age was 76, 4 patients had previously undergone RALP for prostate cancer while 1 patient had undergone HoLEP. Of the RALP patients, 1 had a prior AUS placement and 1 had a sling. Preoperative PPD ranged from 1 to 4, with a mean of 2.2. Mean operative time was 38 minutes, with volumes of Bulkamid® injected ranging from 2 to 4ml with a mean of 2.6ml. There were no intraoperative or postoperative complications. After 1 month, 4 patients still required 1 PPD and 1 was pad-free, with a mean decrease in postoperative PPD of 1.25. All 5 were satisfied with the procedure and results.

Conclusion: Early findings of bulking with Bulkamid® suggest it is a safe and effective option for mild IPT within this limited case series.

Funding: N/A

Table 1: Study Overview

Patient	Prior Prostate Tx	Prior SUI Sx	Pre-Op PPD	Volume Injected (mL)	1 Month Post-Op PPD	Patient Satisfaction
1	RALP	AUS	4	3	1	Yes
2	RALP	-	1	2	0	Yes
3	HoLEP	-	3	4	1	Yes
4	RALP	-	1	2	1	Yes
5	RALP	Sling	2	2	1	Yes

Poster #70

MULTICENTER EXPERIENCE WITH FIRST-LINE INTRAVESICAL GEMCITABINE-DOCETAXEL VERSUS BACILLUS CALMETTE-GUERIN FOR HIGH-RISK NMIBC

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Presented By: Gabrielle R. Yankelevich, DO

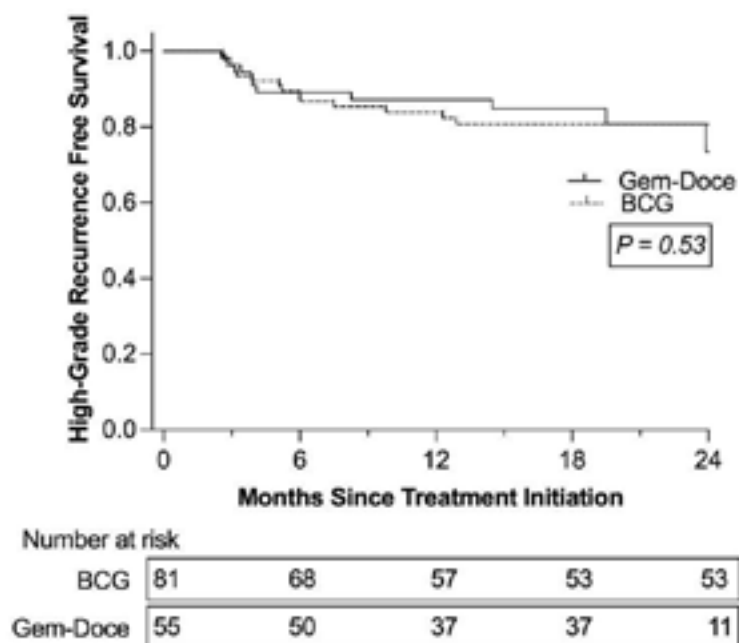
Introduction: During the modern bacillus Calmette-Guérin (BCG) shortages, sequential intravesical chemotherapy (Gemcitabine-Docetaxel, Gem-Doce) therapy has gained traction for treatment patients with treatment-naïve, high-risk non-muscle invasive bladder cancer (HR-NMIBC). In this study, we assessed if Gem-Doce was associated with similar oncologic efficacy to BCG as first line treatment of HR-NMIBC.

Methods: Multi-center, retrospective cohort study of 136 patients with HR-NMIBC that initiated intravesical treatment between August 2020 and August 2023. Included patients required Gem-Doce or BCG induction and had option for maintenance therapy. Patients with history of any upper tract urothelial carcinoma were excluded. The primary outcome was histologic, high-grade bladder cancer recurrence during routine surveillance (quarterly cystoscopy and urine cytology). Oncologic efficacy (high-grade recurrence free survival [RFS]) of first-line Gem-Doce versus BCG at 12- and 24-months after initiation was compared with the Kaplan-Meier method.

Results: During an overall median follow up of 21 months, a cohort of 55 patients received Gem-Doce to the contemporary cohort of 81 patients that received BCG. There were comparable distributions of bladder cancer pathologies for Gem-Doce and BCG (any HG Ta: 62% vs 51%; any T1: 39% vs 36%; any CIS: 28% vs 18%, respectively). There were 30 high-grade recurrences identified (Gem-Doce: 12; BCG: 18). Gem-Doce did not have significantly differing oncologic efficacy compared to BCG (12-months RFS: 87% vs 84%; 24-months RFS: 74% vs 81%, respectively), as seen in Figure 1.

Conclusion: In this multicenter study, first-line Gem-Doce for HR-NMIBC yields comparable oncologic efficacy to BCG at intermediate-term follow up. As clinical trials for patients with treatment-naïve, HR-NMIBC await completion, our study suggests that Gem-Doce should remain in a urologist's repertoire.

Funding: N/A



Poster #72

PRIMARY CHEMOABLATION OF RECURRENT LOW-GRADE INTERMEDIATE-RISK NON-MUSCLE-INVASIVE BLADDER CANCER (LG-IR-NMIBC) WITH UGN-102: A SINGLE-ARM, OPEN-LABEL, PHASE 3 TRIAL (ENVISION)

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Presented By: William C. Huang, MD

Introduction: Low-grade, intermediate-risk non-muscle-invasive bladder cancer (LG-IR-NMIBC) is a persistent and recurrent cancer that is inadequately controlled by the current standard of care: transurethral resection of bladder tumor (TURBT). We report efficacy and safety data from ENVISION (NCT05243550), an ongoing prospective, phase 3, multinational, single-arm trial, designed to evaluate UGN-102 as primary chemoablative therapy in patients with a history of LG-IR-NMIBC requiring TURBT.

Methods: Enrolled patients received 6 weekly intravesical instillations of UGN-102, a reverse thermal hydrogel containing mitomycin (75 mg); 3 months after the first instillation of UGN-102, patients underwent cystoscopy, urine cytology testing, and for-cause biopsy to determine the presence or absence of bladder cancer. The primary endpoint was complete response (CR) at 3 months. Patients who achieved CR entered the follow-up period. Patients not achieving CR due to residual disease received standard of care treatment and then entered follow-up. Secondary endpoints included duration of response, defined as the time from CR at 3 months to the earliest date of disease recurrence, progression, or death from any cause, whichever occurred first.

Results: 240 patients with recurrent LG-IR-NMIBC were enrolled (61% male, 98% white, 68% aged ≥ 65 years). All enrolled patients received at least one dose of UGN-102, and 95% (228) received all 6 doses. CR at 3 months was achieved by 191 patients (79.6%; 95% confidence interval [CI] 73.9–84.5). For these patients, the probability of remaining in response 12-months after CR was 82.3% (95% CI 75.9–87.1; Kaplan–Meier estimate). The most common adverse events (AEs) ($\geq 5.0\%$ of patients) were dysuria, hematuria, urinary tract infection, pollakiuria, fatigue, and urinary retention. AEs were generally mild-to-moderate in severity and resolved or were resolving. Serious AEs occurred in 12.1% (29/240); 2 of these were considered treatment-related (urinary retention and urethral stenosis, both resolved).

Conclusion: Results from ENVISION demonstrate that primary chemoablation using UGN-102 results in a high and clinically meaningful CR rate in patients with recurrent LG-IR-NMIBC. Participants who achieved an initial CR had a high probability of remaining disease-free 12 months later. UGN-102 may represent a well-tolerated and valuable alternative to TURBT for patients with LG-IR-NMIBC.

Funding: UroGen Pharma.

Poster #73

DEVELOPMENT AND INITIAL EXPERIENCE OF A DEDICATED FEMALE BLADDER CANCER CLINICAL CARE COORDINATOR ROLE

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Vanderbilt University Medical Center

Presented By: Bree Duncan

Introduction: Although the majority of bladder cancer patients are male, women present with higher stage disease and have higher perioperative mortality. Given the male predominance of this disease, patient-centered resources are often male-focused and a lower proportion of women are enrolled in clinical trials. Recognizing the lack of educational, research, and clinical support aimed toward woman, our center established a novel clinical care coordinator position to help women with bladder cancer better navigate their care. We describe our initial experience with implementing this female bladder cancer clinical care coordinator (FBCCCC) role.

Methods: A single FBCCCC (registered RN) was assigned to all women with advanced bladder cancer undergoing radical cystectomy at our academic quaternary care referral center. The FBCCCC met with patients both independently and joined during clinic consultations with physicians, as well as established a direct point of contact for support with: clinical trial information, decision-making, patient care resources, educational and emotional support, and day-to-day unexpected needs. The FBCCCC initiates additional communication to address any questions through 6 months following surgery, or longer if clinically indicated.

Results: Thirty-four women aged 64 years on average (range 37-79 years) received FBCCCC support before and after radical cystectomy between 5/2023 and 9/2024. The majority of patients presented with advanced disease. The most common reason patients initiated contact was for questions concerning scheduling. During the pre-operative phone visit, questions were commonly medical in nature, specifically regarding expected recovery. Three Emergency Department visits were avoided due to the FBCCCC. Twenty unnecessary/incorrectly scheduled appointments were cancelled due to the FBCCCC. The majority (22/34) of women report they would come to our institution specifically because of the FBCCCC role.

Conclusion: Utilization of a FBCCCC fulfills an unmet need for female bladder cancer patients. Women undergoing radical cystectomy specifically acknowledged this program as one of the most important reasons why they were satisfied with care at our institution. Next steps for this role at our institution include expanding into non-muscle invasive cancer patients and more specific postoperative care involvement. We hope to establish a template that other institutions can initiate to support women with bladder cancer and/or other cancers.

Funding: N/A

Poster #74

ARE TURBT PATHOLOGY OVERREADS NECESSARY? A DESCRIPTIVE REVIEW OF PATHOLOGIC CONCORDANCE FOR REFERRED BLADDER CANCER PATIENTS OVER A 12-YEAR PERIOD

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Presented By: Brett J. Friedman, MD, MPH

Introduction: The diagnosis, grade and stage of bladder cancer (BC) portends specific surgical and therapeutic considerations with impacts on quality and quantity of life. The American Urologic Association/Society of Urologic Oncology (AUA/SUO) Non-Muscle Invasive Bladder Cancer (NMIBC) guidelines recommended pathology review in 2016 to guide patient-centered treatment. We herein report our experience with pathology review of transurethral resections of bladder tumor (TURBT) specimens from patients referred to our institution over a 12-year period.

Methods: From 2011 to 2023, external referrals for BC management were reviewed by our genitourinary pathologists. Variables of interest included stage, grade, and adverse histopathologic features, notably lymphovascular invasion (LVI) and histologic subtype (HS). Discordances were divided into three categories, namely mild, moderate or major. Major discordances included disease status (benign vs malignant), muscle invasion (MIBC vs NMIBC), or primary malignancy (primary vs metastatic lesion). Moderate discordances involved NMIBC risk category changes. Mild discordances covered cases without risk category change as well as the identification of LVI/HS. Statistical comparison of pre-/post-2016 data was conducted with two-tailed t-test.

Results: In total, 425 pathologic reviews of TURBT specimens were performed. Our institution reviewed double the annual TURBT specimens after the 2016 AUA/SUO guideline recommendations (43/year vs 21/year; $p < 0.01$). One third ($n = 142/425$, 33.4%) of reviews were discordant, a proportion not affected by the pre/post 2016 recommendations (26% pre vs 37% post; $p = 0.06$). There were more than double the annual Histologic Subtype identified after 2016 (2.5/year vs 7.1/year, $p < 0.001$) but the HS percentage of all reviews and HS discordance rates were not different. Among discordant cases, most were moderate (46.5%) to mild (42.7%), while only 10.6% were major. Most discordances were upgrades for moderate (29 of 66; 43.9%) and mild (40 of 61; 65.6%) with only 1/15 major discordances being an upgrade.

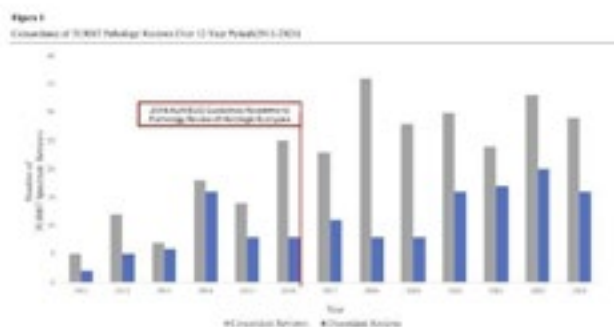
Conclusion: Appropriate pathologic evaluation of TURBT specimens leads to specific therapeutic decisions for BC. In this histologic review, discordances between initial outside pathologic evaluation and review at our institution were seen in 1/3 of patients. How this affected clinical outcomes remains unexplored but an area of future research.

Funding: N/A

Table 1
Demographics and Characteristics of TURBT Pathology Reviews

		TURBT 2011-2015 (n=204)	TURBT 2017-2023 (n=221)	Overall	p-value
Age (years)	Mean (SD)	61.7 (11.1)	60.9 (11.1)	61.3 (11.1)	0.68
	Range	21.8-84.0	21.8-84.0	21.8-84.0	
Number of prior years	Mean (SD)	12.8 (10.2)	12.9 (10.2)	12.8 (10.2)	0.7
	Range, Mean (SD)	0-30 (10.2)	0-30 (10.2)	0-30 (10.2)	
Mean of prior year	White, Mean (SD)	17.2 (10.4)	18.0 (11.1)	17.6 (10.8)	0.59
	Black, Mean (SD)	8.8 (10.1)	10.8 (10.1)	9.8 (10.1)	0.48
	Hispanic, Mean (SD)	8.0 (10.1)	10.8 (10.1)	9.4 (10.1)	0.7
TURBT Pathology Workup (per year)					
All Reviews, Mean (SD)		7.1 (10.1)	10.7 (10.1)	8.9 (10.1)	0.001
	Range, Mean (SD)	0-30 (10.1)	0-30 (10.1)	0-30 (10.1)	
All HS Reviews, Mean (SD)		7.1 (10.1)	10.7 (10.1)	8.9 (10.1)	0.001
	Range, Mean (SD)	0-30 (10.1)	0-30 (10.1)	0-30 (10.1)	
Proportion of Histologic Subtype (HS) Reviews, Mean (SD)		4.7 (10.1)	10.7 (10.1)	7.7 (10.1)	0.001
	Range, Mean (SD)	0-30 (10.1)	0-30 (10.1)	0-30 (10.1)	
Moderate, Moderate-Mild, Mean (SD)		7.1 (10.1)	10.7 (10.1)	8.9 (10.1)	0.001
	Range, Mean (SD)	0-30 (10.1)	0-30 (10.1)	0-30 (10.1)	

† = statistically significant ($p < 0.05$), SD = Standard Deviation, TURBT = Transurethral Resection of Bladder Tumor, HS = Histologic Subtype



Poster #75

LEGEND: PHASE 1/2 STUDY OF DETALIMOGENE VORAPLASMID, A NOVEL, INVESTIGATIONAL, NON-VIRAL INTRAVESICAL GENE THERAPY FOR BCG-UNRESPONSIVE NON-MUSCLE-INVASIVE BLADDER CANCER (NMIBC) WITH CARCINOMA IN SITU

Shreyas Joshi, Susan Kalota, Matthew Bui, Rian Dickstein, Jen-Jane Liu, Yair Lotan, Scott Johnson, John Taylor, Raj Pruthi, Christine Tosone, Joseph Zabell, Gary Steinberg, Gordon Brown, Vikram Narayan

Presented By: Shreyas S. Joshi, MD, MPH

Introduction: Detalimogene voraplasamid is a novel, investigational, non-integrating, non-viral gene therapy engineered for intravesical administration to elicit local stimulation of anti-tumor immune responses and drive durable efficacy in high-risk NMIBC, while mitigating the risk of systemic toxicities from immune stimulation. We describe the phase 1 (dose-escalation) portion of LEGEND (NCT04752722), a first-in-human, phase 1/2, open-label, multicenter study of detalimogene voraplasamid in high-risk BCG-unresponsive NMIBC with carcinoma in situ (CIS).

Methods: Patient eligibility criteria: age ≥ 18 years; ECOG PS 0–2; BCG-unresponsive NMIBC with CIS \pm resected coexisting papillary tumors; no cystectomy; satisfactory bladder function with ability to retain study drug for ≥ 60 minutes. In the phase 1 portion of LEGEND, three escalating doses of detalimogene voraplasamid (0.25, 0.8 and 2.5 mg/mL) were administered by a two-dose instillation schedule at W1&2 Q3M. Dose level 2 (0.8 mg/mL) was additionally administered at a four-dose instillation schedule at W1, 2, 5&6 Q3M. Primary objective of phase 1: assess safety and tolerability of detalimogene voraplasamid through 12W. Efficacy evaluation was a secondary objective; complete response (CR) was defined per FDA guidance on BCG-unresponsive NMIBC [February 2018].

Results: Twenty-four patients (18 males/6 females; median age 74Y) received ≥ 1 dose of detalimogene voraplasamid by intravesical administration. Treatment-related adverse events (TRAEs) were reported in 13 (54.2%) patients and were mainly Grade 1/2 in severity, except for one Grade 3 TRAE of renal failure in a patient with an ongoing history of renal failure. The most common TRAEs were urinary tract infection (12.5%; all Grade 2); micturition urgency (12.5%; two Grade 1; one Grade 2), hematuria (12.5%; all Grade 1) and dysuria (12.5%; all Grade 1). In the efficacy-evaluable population across all doses tested ($n=22$), the overall CR rate was 73%. The recommended phase 2 dose (RP2D) and schedule was established as four instillations of detalimogene voraplasamid 0.8 mg/mL Q3M.

Conclusion: Interim data from the phase 1 portion of LEGEND suggest a promising safety and tolerability profile of detalimogene voraplasamid. Overall, 73% of patients achieved a CR. Detalimogene voraplasamid at 0.8 mg/mL administered in a four-instillation schedule Q3M is now being investigated in patients with BCG-unresponsive NMIBC with CIS ($n=100$) in the pivotal phase 2 portion of LEGEND.

Funding: enGene Inc.

Poster #76

MECHANISM OF ACTION AND TRANSLATION TO THE CLINIC OF DETALIMOGENE VORAPLASMID (EG-70) – A NOVEL, INVESTIGATIONAL NON-VIRAL IMMUNOTHERAPY FOR NON-MUSCLE-INVASIVE BLADDER CANCER (NMIBC)

James C. Sullivan, Yair Lotan, Marie-Line Goulet, Shauna Dauphinee, Daniel Veilleux, Kristine Louis, David Lazure, Sarah Stevenson, Darius Bilimoria, Fazmina Zamzameer, Ximin Chen, Sebastien Sublemontier, Sahar Amirkhani, Carlos Fleet, Raj Pruthi, Anthony Cheung, Shreyas Joshi, Ashish M. Kamat, Vikram Narayan

Presented By: Vikram M. Narayan, MD, FACS

Introduction: Detalimogene voraplasamid (EG-70) is a novel, investigational, non-integrating, non-viral gene therapy designed to elicit local stimulation of anti-tumor immune response in the bladder while mitigating the risk of systemic toxicities from immune stimulation. Detalimogene voraplasamid is administered by intravesical instillation (IVI) to patients with NMIBC to drive bladder-localized expression of innate (retinoic acid-inducible gene I [RIG-I] agonists) and adaptive (interleukin-12 [IL-12]) immune regulators and remodel the tumor microenvironment. LEGEND is an ongoing Phase 1/2 study (ClinicalTrials.gov: NCT04752722) investigating the safety and efficacy of detalimogene voraplasamid in patients with BCG-unresponsive NMIBC. We now present preclinical data supporting the mechanism of action of detalimogene voraplasamid, which involves immune cell recruitment, tumor microenvironment remodeling and, ultimately, immune training on neoantigens and tumor clearance.

Methods: Preclinical evaluation of detalimogene voraplasamid efficacy was conducted in an orthotopic syngeneic mouse model of bladder cancer to recapitulate a physiological tumor microenvironment in immunocompetent C57BL/6 mice. Luciferase-expressing MB49 cells were instilled in the bladder on study Day 1; following confirmation of tumor engraftment by in vivo bioluminescence imaging on Day 9, mice received two weekly IVIs of mEG-70 (a murine surrogate of EG-70) on Days 10 and 17. Effect of mEG-70 was assessed post-dosing by flow cytometry, MSD immunoassays, immunohistochemistry, bioluminescence in vivo imaging, bladder weight evaluation, and overall survival. In the Phase 1 part of the LEGEND study, detalimogene voraplasamid was assessed in patients with high-risk BCG-unresponsive NMIBC with carcinoma in situ (CIS).

Results: Immune profiling revealed a profound remodeling of the tumor microenvironment from an immunosuppressive phenotype to a pro-inflammatory milieu supportive of tumor clearance. Accordingly, mEG-70 was associated with marked reduction in tumor burden and marked survival improvement in mice. As demonstrated by either bladder or flank tumor cell rechallenge, the anti-tumor immune response in surviving tumor-free mice resulted in durable protection against subsequent tumor re-challenge and systemic immune memory.

Conclusion: These preclinical findings demonstrate that detalimogene voraplasamid delivers genetically encoded immunostimulatory payloads locally to the bladder. The mechanism of action described preclinically has been translated into the clinic in the Phase 1 part of the LEGEND study, in which detalimogene voraplasamid was generally well tolerated, with an overall complete response rate of 73%.

Funding: enGene, Inc.

Poster #77

SEX BASED DIFFERENCES OF SOMATIC MUTATIONS IN CAUCASIAN BLADDER CANCER POPULATION

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Presented By: Jean-Pierre Kanumuambidi, MPH

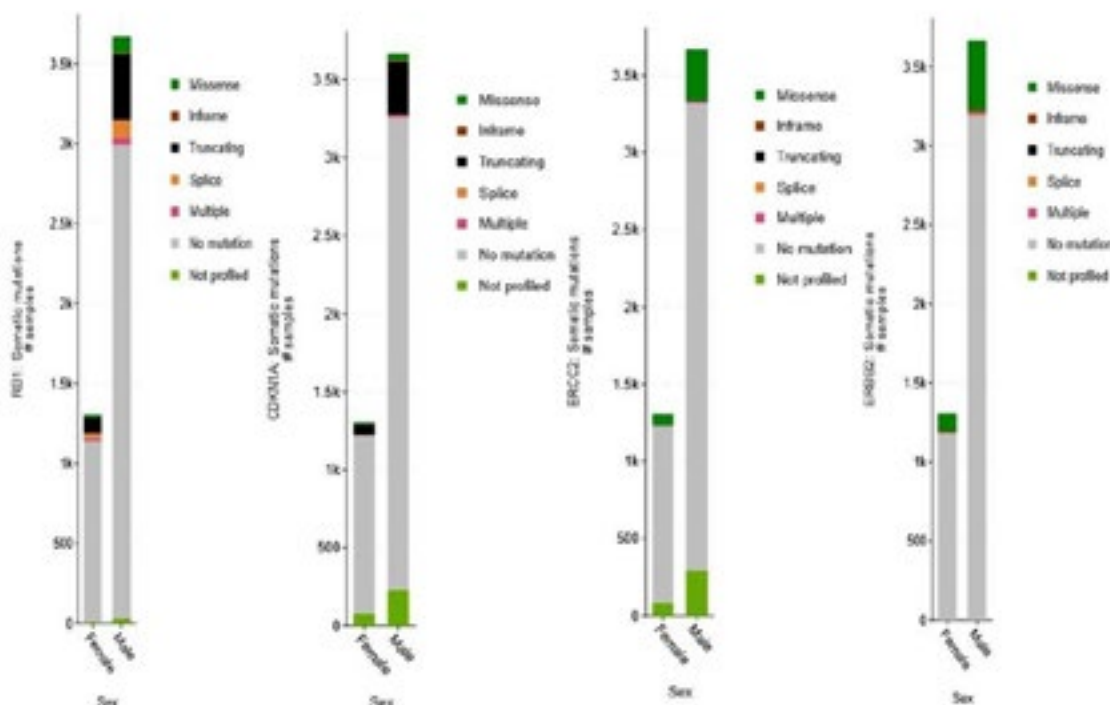
Introduction: There is known male preponderance of 2:1 compared to females in patients diagnosed with bladder cancer. In this study, we explored genetic mutations that may explain the higher incidence in males using next-generation sequencing (NGS) data.

Methods: We accessed the American Association for Cancer Research Project Genomics Evidence Neoplasia Information Exchange (GENIE) registry and identified Caucasian patients with bladder cancer. The cohort was divided into male and female groups based on somatic mutations. We analyzed the frequency of these mutations, focusing on those with a frequency rate greater than 5%, and considered p-values less than 0.05 as statistically significant.

Results: Out of 4,040 patients diagnosed with bladder cancer, 1,519 (38%) who had all required data were included in our study. This group comprised 79.3% male and 20.7% female patients, with a median age of 70 years at diagnosis. We included a panel of 1,362 genes. The overall frequency of mutations was higher in males compared to females (15.5% vs. 10.47%, $p = 0.002$). Specifically, four genes were significantly more frequently mutated in males than in females ($p < 0.05$): RB1 (20.95% vs. 14.27%), with truncations being the most prevalent mutation (11.17% vs. 7.42%; $p < 0.001$); CDKN1A (12.87% vs. 7.71%), with truncations also being the most common mutation (9.29% vs. 5.2%; $p < 0.001$); ERBB2 (17.33% vs. 12.75%), where missense mutations were the most prevalent (12.05% vs. 8.34%; $p < 0.001$); and ERCC2 (10.87% vs. 7.16%), with missense mutations being the most common (9% vs. 5.6%; $p < 0.001$). None of the genes studied were more frequently mutated in females.

Conclusion: In the bladder cancer population, somatic genetic mutations are more common in males compared to females. The significantly mutated genes are involved in various cellular functions, including cell proliferation and DNA damage repair. Gaining a deeper understanding of these sex-based genetic profiles may help elucidate the heterogeneity observed in bladder cancer.

Funding: N/A



Poster #78

ASSOCIATION OF PRIOR ABDOMINAL SURGERY WITH PERI- AND POST-OPERATIVE OUTCOMES IN PATIENTS UNDERGOING RADICAL CYSTECTOMY FOR BLADDER CANCER

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Presented By: Nikita Bastin

Introduction: In patients undergoing major abdominopelvic surgery, history of prior abdominal surgery (PAS) is an established risk factor known to influence surgical complexity, peri-operative course, and patient outcomes. There are, however, limited data describing the impact of PAS on patients undergoing radical cystectomy for bladder cancer. The current study sought to evaluate the association of PAS with surgical and oncologic outcomes in patients undergoing radical cystectomy at a high-volume academic center.

Methods: The study cohort included consecutive patients undergoing radical cystectomy with ileal conduit diversion at a single institution from 2018 through 2020. Prospectively collected patient-level data were obtained from the medical record. Baseline comorbidities were quantified using the Charlson Comorbidity Index (CCI) and categorized as mild (CCI 1-2), moderate (CCI 3-4), and severe (CCI ≥5). The primary outcome was post-operative complications, categorized using the Clavien-Dindo classification (I-V). We performed multivariable analysis to determine the association of PAS with post-operative outcomes after adjustment for patient-level factors.

Results: The study cohort included 272 patients of median age 70 (65-75), of which 219 (80%) were male, 208 (76%) were current or prior smokers, and 131 (48%) had undergone PAS. Overall, 92 (33%) patients experienced a total of 170 Grade 2-5 complications. The incidence of Grade 2-5 complications was significantly higher in patients with PAS than those without (54% vs. 42%, $p=0.028$). On multivariable analysis adjusted for sex and CCI, prior abdominal surgery was associated with an approximate 32% increase in the odds of Grade 2-5 complication (OR 1.32, 95% CI 1.02-1.72, $p=0.03$).

Conclusion: In patients undergoing radical cystectomy for bladder cancer, a history of prior abdominal surgery was associated with increased rate of Grade 2-5 complications. As such, patients with PAS are likely to benefit from pre-operative interventions such as prehabilitation to mitigate risk and optimize the post-operative course.

Funding: N/A

Poster #79

EVALUATION OF SYSTEMIC THERAPY AND SURGICAL CONSOLIDATION IN PATIENTS WITH NODE POSITIVE UPPER TRACT UROTHELIAL CARCINOMA

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¹University of Kentucky, ²University of Freiburg

Presented By: Joon Kyung Kim, MD

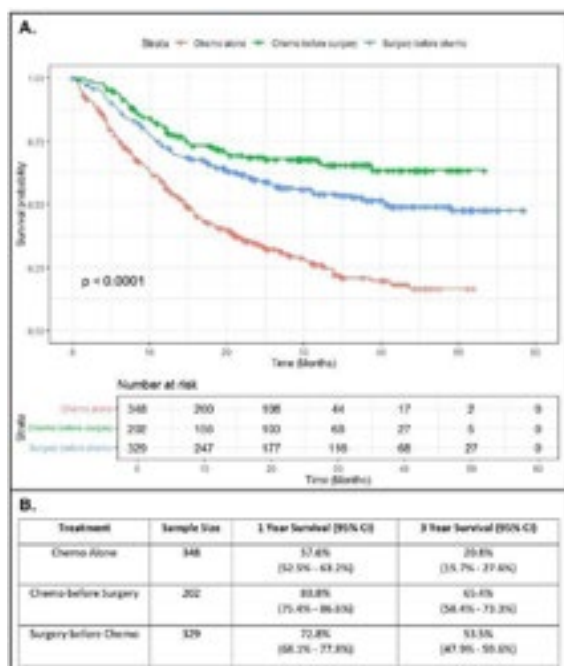
Introduction: The recommended treatment for high-grade upper tract urothelial carcinoma (UTUC) includes radical nephroureterectomy with regional lymph node dissection for clinically organ-confined disease. The timing of peri-operative systemic therapy is multifactorial, with extrapolation of data from muscle-invasive bladder cancer in the neoadjuvant setting, and level 1 data for UTUC in the adjuvant setting. The timing of peri-operative systemic therapy and need for surgical consolidation in the clinically node positive setting is even more unclear. The goal of this study is to compare survival in cN+ patients managed with neoadjuvant, adjuvant, and systemic therapy alone approaches.

Methods: Patients with cT0-4 N1-3 M0 UTUC who received chemotherapy with or without nephroureterectomy (NU) between 2018 and 2021 in the National Cancer Database (NCDB) were included. Patients were stratified into three treatment groups: chemotherapy only (CO), neoadjuvant chemotherapy followed by nephroureterectomy (NAC-NU), and nephroureterectomy followed by adjuvant chemotherapy (NU-AC). OS was analyzed using Kaplan-Meier analysis and log rank tests. Cox proportional hazard models were employed to adjust for potential confounders.

Results: A total of 1193 patients were included (CO, NAC-NU, and NU-AC treatment groups consisted of 495, 287, and 411 patients, respectively). Patients in the CO group were older ($P < 0.001$), more commonly males ($P < 0.001$) compared with NAC-NU and NU-AC cohorts. There was no significant difference in Charlson comorbidity index between the three groups. The pathologic complete response rate (ypT0N0) in the NAC-NU was 6.5%. Patients managed with NAC-NU exhibited the most favorable OS compared to NU-AC and CO ($P < 0.0001$), with 3-year OS 65.4% (95% CI 58.4%-73.3%), 53.5% (47.9%-59.6%), and 20.8% (15.7%-27.6%) in these groups, respectively. On multivariate analysis controlling for age, sex, and clinical stage using NAC-NU as a referent, NU-AC and CO exhibited inferior OS (HR 1.48, 95% CI 1.06-2.06, $P = 0.021$ and HR 2.92, 2.14-4.00, $P < 0.001$, respectively).

Conclusion: The use of neoadjuvant chemotherapy followed by nephroureterectomy provides optimal survival outcomes in patients with cN+ high-grade UTUC. These data suggest that, when feasible, surgical consolidation is an important treatment component in patients with cN+ disease, likely owing to low rates of pathologic complete response.

Funding: N/A



Poster #80

ASSOCIATION OF SOMATIC GENE MUTATIONS IN UROTHELIAL CANCER BASED ON LOCATION IN THE BLADDER

Arjun Venkatesh, MS¹, Jean-Pierre Kanumuambidi, MPH, ESE¹, Reynier Rosales Rodriguez, BS¹, Nicole Murray, MD, MPH, MBA², Mohammed Al-Toubat, MD¹, K.C. Balaji, MD¹

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Presented By: Arjun Venkatesh

Introduction: Although the size, grade and stage of bladder cancer have proven prognostic significance, the clinical significance of location is less clear. Conceivably, tumors in the lateral wall near the ureteral orifices may have a different etiology and clinical behavior compared to urothelial cancers at the dome. We carried out an exploratory analysis of differences in somatic genetic mutations based on location of the tumor in the bladder to gain additional insights into the differences in etiology.

Methods: From the American Association for Cancer Research Project Genomics Evidence Neoplasia Information Exchange registry, a total of 2,980 patients with bladder urothelial carcinoma were identified. Patients were filtered to ensure no missing data and having at least 5 patients in each ICD cohort. Mutation frequencies were compared using chi-square tests, focusing on the 423 genes with a mutation frequency greater than 5%. P-values were adjusted using the Benjamini-Hochberg method, with $p < 0.01$ considered significant.

Results: A total of 570 patients were identified within ICD cohorts for trigone, dome, lateral, anterior and posterior wall cancers. Of the total 14,154 genes, 423 (3%) genes were mutated in more than 5% of the cohort. Pairwise comparison revealed 35 genes with significant mutational differences between tumor locations. Of these, 10 genes were significantly more frequently mutated in the anterior wall, 14 in the dome, 4 in the posterior wall, and 7 in the trigone. The top 15 most significant genes and their associated location in the bladder are listed in Table 1.

Conclusion: This study identified distinct genomic alterations based on tumor location in the bladder. Additional studies are warranted to understand the biological and clinical significance of these novel findings, which could guide more personalized therapeutic approaches in bladder cancer.

Funding: N/A

Gene	Trigone	Dome	Lateral Wall	Anterior Wall	Posterior Wall	P-Value	Most Frequently Mutated Site
BPTF	10 (11.90%)	5 (11.90%)	11 (5.14%)	22 (34.38%)	14 (8.70%)	<0.001	Anterior Wall
KMT2A	21 (25.00%)	14 (29.79%)	16 (8.21%)	3 (5.00%)	23 (14.29%)	<0.001	Dome
OBSCN	8 (11.11%)	18 (38.30%)	19 (9.74%)	9 (15.00%)	33 (20.50%)	<0.001	Dome
TP53	50 (59.52%)	36 (76.60%)	113 (52.80%)	19 (29.69%)	87 (54.04%)	<0.001	Dome
CSMD1	23 (27.38%)	7 (14.89%)	15 (7.01%)	8 (12.50%)	33 (20.50%)	<0.001	Trigone
DNAH11	24 (28.57%)	16 (34.04%)	34 (15.89%)	3 (5.00%)	23 (14.29%)	<0.001	Dome
SYNE1	20 (23.81%)	18 (38.30%)	38 (17.76%)	20 (31.25%)	19 (11.80%)	<0.001	Dome
FCGBP	13 (15.48%)	12 (25.53%)	17 (7.94%)	3 (5.00%)	9 (5.59%)	<0.001	Dome
BIRC6	19 (22.62%)	12 (25.53%)	27 (12.62%)	3 (5.00%)	12 (7.45%)	<0.001	Dome
RELN	19 (22.62%)	6 (14.29%)	13 (6.07%)	11 (18.33%)	15 (9.32%)	<0.001	Trigone
F5	9 (10.71%)	9 (19.15%)	19 (8.88%)	11 (17.19%)	39 (24.22%)	<0.001	Posterior Wall
XIRP2	16 (19.05%)	13 (27.66%)	23 (10.75%)	3 (5.00%)	16 (9.94%)	0.001	Dome
MYO7A	11 (13.10%)	4 (8.51%)	11 (5.14%)	13 (20.31%)	10 (6.21%)	0.001	Anterior Wall
RYR1	14 (16.67%)	18 (38.30%)	31 (14.69%)	11 (17.19%)	22 (13.66%)	0.002	Dome
SPTAN1	10 (11.90%)	8 (17.02%)	28 (13.08%)	16 (25.00%)	9 (5.59%)	0.002	Anterior Wall

Poster #81

LATE WEEK CYSTECTOMIES: A RETROSPECTIVE ANALYSIS OF POST OPERATIVE COMPLICATIONS BASED ON TIME OF THE WEEK

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Presented By: Michael George Dubic, MD

Introduction: Previous investigations have suggested that performing elective cases towards the end of the work week are associated with greater number of post operative complications and decreased adherence to standardized post operative care protocols, yet other studies have found no such differences. We hypothesized that post operative complication rates would be higher in patients undergoing radical cystectomy for bladder cancer when surgery is performed in the latter part of the work week.

Methods: Using a prospectively maintained ERAS database for all radical cystectomies performed at our single center, high volume institution, we retrospectively reviewed patients who underwent robotic radical cystectomy (RRC) or open radical cystectomy (ORC) between January 1, 2015, and April 1, 2024, based on which day of the week their operation took place. After controlling for surgeon, patient demographics, pathologic factors, and medical comorbidities, surgeries taking place on Monday, Tuesday, or Wednesday (MTW) were compared to those that took place on Thursday or Friday (ThF). Primary outcomes of interest were hospital length of stay (LOS) and 30-day all complication rate. Secondary outcomes included 30-day reoperations, ICU stays, and length of surgery. Analysis was stratified according to surgical technique

Results: A total of 144 ORC (68, ThF) and 348 RRC (103, ThF) were analyzed. Surgical timing had no statistically significant impact on complications, reoperations, LOS, ICU admission, or length of operation for patients undergoing RRC. For ORC, LOS was predicted to be 1.4 days shorter ($p=0.025$) and operative times 25 minutes less ($p=0.02$) in the ThF group after multivariate regression. There was a non-statistically significant trend towards fewer Clavien-Dindo grade ≥ 3 complications in the ThF group ($p=0.0813$). No differences were found in ICU admission or reoperation.

Conclusion: Overall, we observed minimal impact of surgical timing, later versus earlier in the week, as it pertains to immediate post-operative outcomes and LOS. This is likely attributable to the highly protocolized care delivered at our institution for radical cystectomy, which offsets the effects of late-week burnout, weekend cross-coverage, and reduced staffing that might typically be expected to result in poorer post operative outcomes for cases performed later in the week. This furtherer supports developing standardized pathways, especially for complex urologic surgeries.

Funding: N/A

Poster #82

ASSESSING THE IMPACT OF GUIDELINE NON-ADHERENCE ON THE DIAGNOSIS OF GENITOURINARY INJURIES IN ACUTE TRAUMA SETTINGS

Andrea Juneau, MD, Parris Kapple, Rebecca Edwins, MD, Eniola Ogundipe, MD, Leah Ashby, APRN, Uzoma Anele, MD

University of Louisville Health

Presented By: Andrea Denise Juneau, MD

Introduction: Delayed recognition of genitourinary injuries poses a significant risk of patient harm in the acute trauma setting. Although professional society guidelines are useful diagnostic aids, suboptimal adherence may increase risk. Through a comprehensive analysis of clinical outcomes arising from delayed diagnosis, we aim to investigate the prevalence and implications of undiagnosed genitourinary trauma to illuminate the importance of timely intervention and improve diagnostic protocols.

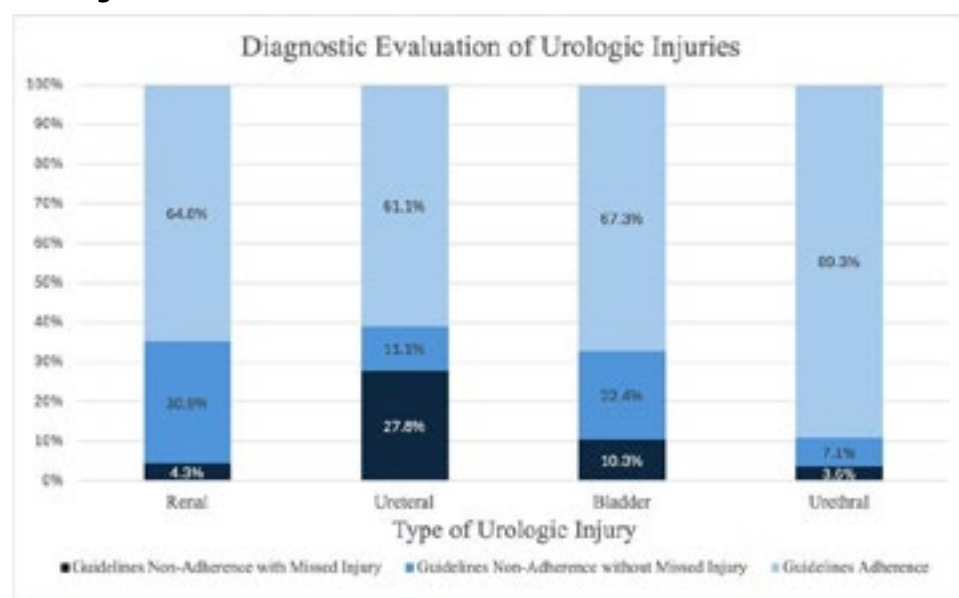
Methods: We accessed a large, prospectively-managed database maintained at our level 1 trauma center to identify patients diagnosed with urotrauma from 2020-2023. Data were systematically analyzed for American Urological Association (AUA) Urotrauma Guidelines non-adherence (GNA) during initial hospital assessment. Missed injury (MI) was defined as failure to diagnose urotrauma within 24 hours of patient arrival. Descriptive analyses were performed to characterize patterns in injury assessment.

Results: Of 447 urotrauma patients initially reviewed, 387 (median age 33 [range: 14-87] years) were analyzed after excluding patients lacking urotrauma diagnoses or who expired within 24 hours of presentation. Initial evaluation revealed 35.1% (136/387) rate of GNA, with 18.4% (25/136) resulting in MI. Renal injuries were the most common urotrauma diagnosis but had the lowest rate of MI while ureteral injuries were the least common urotrauma diagnosis but had the highest rate of MI. GNA was highest in ureteral injury and lowest in urethral injury (Figure 1). Lack of urinalysis or gross hematuria documentation in initial workup was noted in 46.3% of GNAs. Additionally, 20.6% did not undergo subsequent/delayed imaging despite injury concerns on initial imaging report. Among those with MI, 72% (18/25) required urologic intervention which was delayed by a median 5.5 (range: 2-78) days after presentation and 12% (3/25) of MIs required readmission.

Conclusion: Although urotrauma guidelines are designed to standardize care and enhance outcomes, we found their application at our institution to be inconsistent and inadequate with GNA in over 1/3 of urotrauma presentations. Consequently, nearly 20% of these GNAs resulted in MI, of which 80% had delayed urologic surgical intervention. These deficiencies represent unique opportunities to increase institutional awareness, promote contemporary practice patterns, and ultimately improve the quality of patient care outcomes.

Figure 1. Guidelines non-adherence and missed injury rates among urotrauma diagnoses.

Funding: N/A



Poster #83

ENHANCING UROLOGY REFERRAL INTAKE THROUGH AI-ASSISTED PRE-CHARTING: A PILOT STUDY

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Presented By: Aaron W. Stewart, MD

Introduction: The use of artificial intelligence (AI) in healthcare is growing, which can improve providers' clinical workflow and assist in the synthesis of healthcare data. We aimed to assess how AI can assist in pre-charting new patient referrals to a tertiary urologic kidney stone clinic.

Methods: Ten patients who were referred for kidney stone disease to a single academic center between October 2022 and November 2023 were randomly selected for review. The referral packets were scanned PDF packets and varied in length from 10 to 44 pages. Hona (Hona AI, San Francisco, CA), a web-based artificial intelligence software, was used to provide a pre-templated clinical summary of the referral packet. Five fellowship-trained endourologists from different academic centers were assigned to pre-write a non-templated clinic note for each of the ten patients. Assignments were randomized such that each physician completed five notes with AI assistance and five without. The time to create each clinic note was recorded. After completion of all ten charts, the physicians were asked to complete a satisfaction survey. Each clinic note was evaluated using the Physician Documentation Quality Instrument (PDQI-9) by two separate authors, and these scores were averaged. Outcomes were compared using Wilcoxon rank-sum tests, with $p < 0.05$ indicating statistical significance.

Results: A total of 50 notes were written, 25 with and 25 without AI assistance. Median note writing time was 8.2 min (IQR 7.0-10.2) for AI-assisted notes and 9.4 min (IQR 8.4-11.7) for non-AI-assisted notes, representing a 13% reduction in time for note generation with AI assistance ($p = 0.048$). The median total PDQI-9 score was 42.5 for AI-assisted notes and 42.0 for non-AI-assisted notes ($p = 0.321$). AI-assisted notes scored significantly higher on being "up-to-date" (median 5 vs. 4.5, $p = 0.020$); there were no other significant differences on PDQI-9 questions (Figure). Clinicians were either "very satisfied" or "somewhat satisfied" with the AI software overall. All five clinicians "strongly agreed" that the AI-generated report is superior to the current standard referral documents in their practice.

Conclusion: For urology referrals, AI assistance led to faster creation of a pre-clinic note without compromising note quality. All the physicians involved preferred the AI assistance to the current standard referral document in their practice.

Funding: N/A

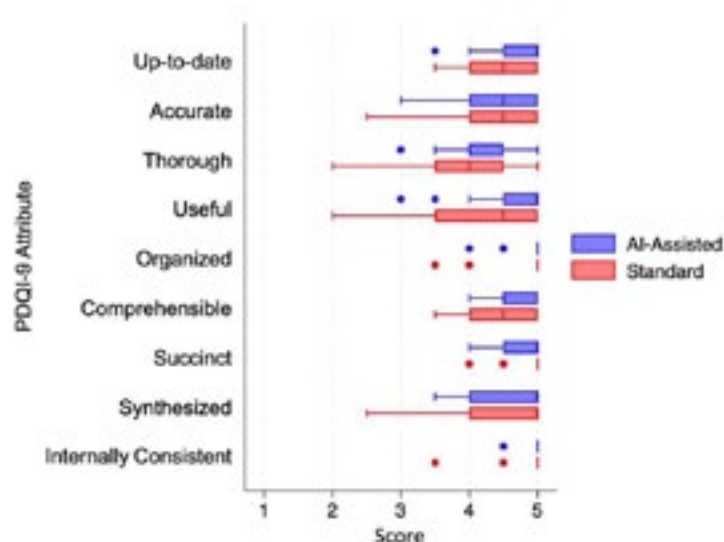


Figure: Scores for each attribute assessed in the PDQI-9, stratified by AI assistance. Each attribute is scored on a 5-point Likert scale (1-5).

Poster #84

ARE WE WITNESSING THE DEMISE OF OPEN SURGERY? TRENDS OVER TWO DECADES OF OPEN VERSUS MINIMALLY INVASIVE SURGERY IN UROLOGY

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Presented By: Gabrielle R. Yankelevich, DO

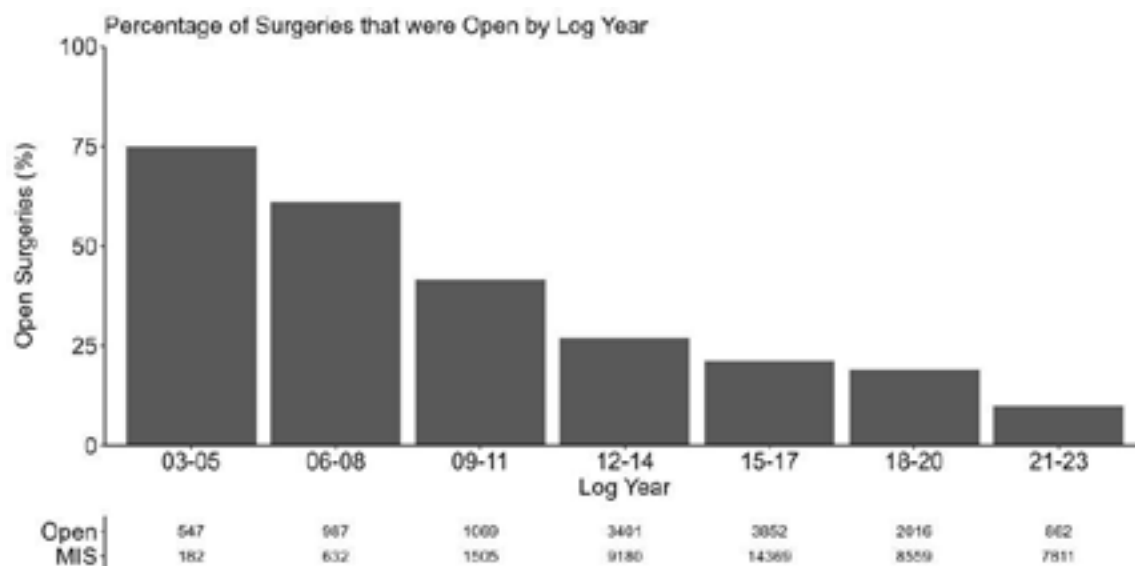
Introduction: The advent of minimally invasive surgery (MIS) in recent years has resulted in declining utilization of open approach (OA) in vascular and general surgery. We performed a contemporary review of American Board of Urology (ABU) data to assess trends in surgical approach in urology.

Methods: Operative logs from ABU examinees from 2003-2023 were obtained. CPT codes were used to identify OA and MIS for radical nephrectomy (RN), partial nephrectomy (PN), radical nephroureterectomy (RNU), radical prostatectomy (RP), and adrenalectomy (RA). We included patients ≥ 18 years of age. The raw counts and proportions of OA and MIS procedures were calculated over time across all surgeries and within each specific surgery.

Results: From 2003-2023, there were 54,972 surgical procedures reported to ABU with 23% (12,734) being open and 77% (42,238) being MIS. In general, the proportion of OA decreased over time, as shown in **Figure 1**. Notably, the percentage of OA decreased across all surgical procedures despite increasing surgical volume. The percentage of overall OA decreased from 75% (2003-2005) to 9.9% (2021-2023) among ABU examinees. Consistent declines were observed in OA across the individual surgical procedures. For example, the use of OA for RP declined from 67.8% in 2003-2005 to a mere 3.2% in 2021-2023. During the same periods, RN decreased from 85.2% to 25.5%, PN from 91.2% to 12.8%, RNU from 66.7% to 9.3%, and RA from 100% to 25.8%.

Conclusion: Open surgery in urologic oncology is becoming increasingly rare across different procedures and is being replaced by minimally invasive approaches. These findings raise questions regarding the future of open surgery in urologic oncology. Moreover, with continued decline of OA, adequate training in open surgical techniques may become increasingly difficult to attain for urologic trainees.

Funding: N/A



Poster #85

EVALUATING METAL-MODIFIED CERIUM NANOSTRUCTURES FOR BIOFILM INHIBITION ON LATEX AND SILICONE CATHETER MATERIALS

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Presented By: Jeremy Ben Sheiber, B.S.

Introduction: Urinary tract infections (UTIs) present significant challenges, particularly in catheterized individuals. Catheter-associated bacterial biofilm formation interferes with antibiotic delivery complicating patient treatment. Metal nanostructure coatings, such as silver cerium nanoparticle (AgCNP), have demonstrated antimicrobial activity by generating reactive oxygen species. Specifically, this compound has been shown to inactivate biofilm formation and reduce bacterial biomass in prevalent urinary pathogens including *Staphylococcus aureus* and *Pseudomonas aeruginosa*, thus, demonstrating promise as a catheter-associated urinary tract infection (CAUTI) prevention strategy.

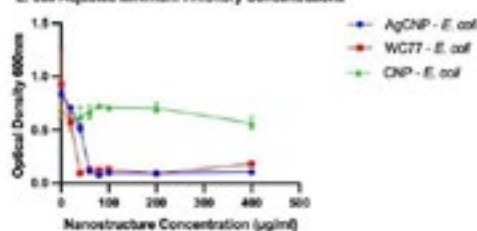
Methods: This study examines two formulations of metal nanostructure coatings (AgCNP and WC77) for their effect on biomass and biofilm formation on latex and silicone catheter materials compared to uncoated materials. Minimum inhibitory concentration (MIC) testing of AgCNP and WC77 against *S. aureus*, *P. aeruginosa*, *Escherichia coli*, and *Klebsiella pneumoniae* was performed using a 1×10^8 CFU/mL bacterial challenge in tryptic soy broth supplemented with 1% dextrose. Nanostructure concentrations of 0, 20, 40, 60, 80, 100, 200, and 400 $\mu\text{g/mL}$ were incubated for 24 hours at 37°C, followed by optical density measurements at 600 nm. All experiments were performed in triplicate. Appropriate positive and negative controls were incorporated, including triplicates of non-challenged compound in identical growth conditions. The aforementioned non-challenged conditions were used to adjust for **Introduction:** absorbance in calculating the adjusted minimum inhibitory concentrations.

Results: The respective MICs for AgCNP and WC77 were found to be 60 $\mu\text{g/mL}$ and 40 $\mu\text{g/mL}$ for *E. coli*, 200 $\mu\text{g/mL}$ and 100 $\mu\text{g/mL}$ for *S. aureus*, 100 $\mu\text{g/mL}$ and 80 $\mu\text{g/mL}$ for *P. aeruginosa*, and 80 $\mu\text{g/mL}$ for both compounds against *K. pneumoniae*.

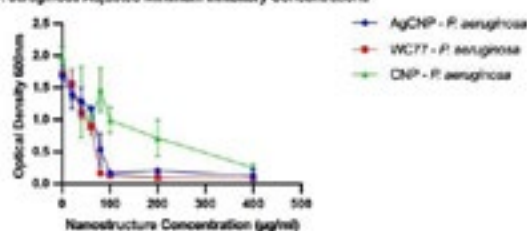
Conclusion: Our results demonstrate that AgCNP and WC77 significantly reduce bacterial biomass formation in liquid compared to controls. This ability, as it relates to *Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Escherichia coli*, and *Klebsiella pneumoniae* may improve treatment and prevention of catheter-associated urinary tract infections. Additional studies of these compounds surrounding their effects on catheter-biofilm formation are ongoing.

Funding: N/A

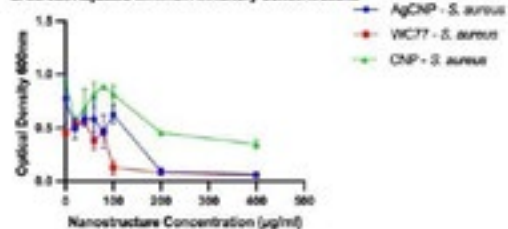
E. coli Adjusted Minimum Inhibitory Concentrations



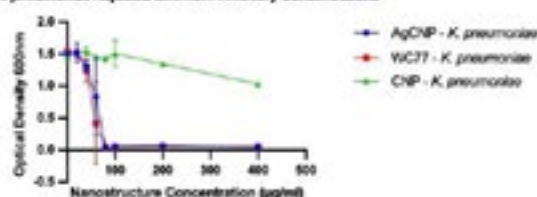
P. aeruginosa Adjusted Minimum Inhibitory Concentrations



S. aureus Adjusted Minimum Inhibitory Concentrations



K. pneumoniae Adjusted Minimum Inhibitory Concentrations



Poster #86

EARLY POSTOPERATIVE VIRTUAL VISITS IMPROVE PATIENT OUTCOMES POST-INGUINAL LYMPH NODE DISSECTION FOR PENILE CANCER

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¹Moffitt Cancer Center, ²USF Morsani College of Medicine

Presented By: Adnan Nazir Fazili, MD

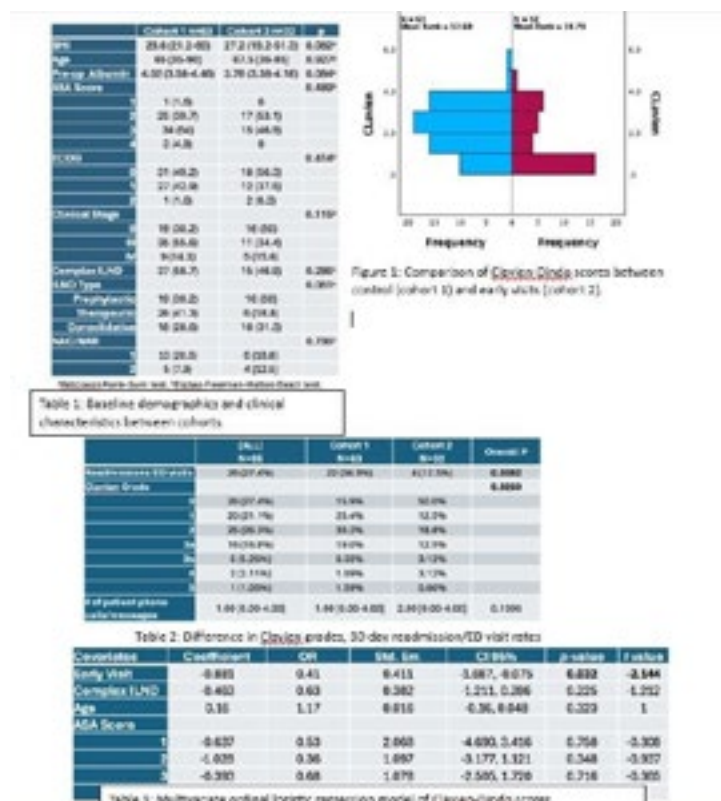
Introduction: Inguinal lymph node dissection (ILND) is the standard of care for high-risk localized and low volume inguinal node positive penile cancer. Although this cancer is potentially curable with radical inguinal surgery, ILND has a very high morbidity. Here we compare a single surgeon's postoperative outcomes after ILND at a high-volume North American center for penile cancer with respect to early postoperative clinic visits facilitated by virtual telemedicine.

Methods: Data was retrospectively collected on patients undergoing ILNDs performed by a single surgeon from August 2006 to April 2024 including baseline health and demographic information, postoperative complications, readmission rates/emergency room visits, and post discharge patient calls/portal messages. The sample population was divided into two groups differentiated by early postoperative follow up and compared to the previously standardized surgical pathway follow up. The primary objective was to evaluate differences in postoperative complication rates and hospital readmissions/ emergency room visit rates.

Results: The early follow up cohort showed a statistically significant reduction in overall 30-day Clavien scores with univariate analysis ($p=0.026$) and multivariate ordinal regression ($p=0.032$, OR=0.41). Cohort 2 showed a statistically significant reduction in postop hospital readmission/ED visits with univariate analysis ($p=0.0382$). However, logistic regression analysis accounting for confounders showed a close but statistically insignificant association. Post-op patient calls showed no significance between cohorts.

Conclusion: We present data from a high-volume ILND center, delineating an institution-wide, standardized change in earlier post op follow-up. Our data showed a statistically significant reduction in post op Clavien scores within the early follow up group. Although reduction in post op ED visits/readmissions were not statistically significant after accounting for confounders, early post op visits allowed earlier identification of incipient complications and allowed for early outpatient interventions without the need of hospitalization. Telemedicine can easily facilitate an early check in point for patients undergoing an already very morbid surgery.

Funding: N/A



Poster #87

ACADEMIC UROLOGIST PER CAPITA IN THE UNITED STATES

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Presented By: Zachary M. Connelly, MD, PhD

Introduction: The physician shortage is becoming more critical, especially in specialties like Urology. There is a projected 46% shortage of urologists by 2035. Only 38% of U.S. counties have practicing urologists. Our study aims to assess the per capita availability of academic urologists by state and AUA section and to explore the representation of urologic specialties within academic settings.

Methods: Data collection involved utilizing the American Urologic Association sections in the United States and their state-wise list of academic programs. Each program's website was visited to record information on urologists, and specific specialties. The number of academic urologists per 100,000 citizens (per capita) was calculated using 2021 estimates from the U.S. Census Bureau. As all data collected was publicly available, the project was exempt from institutional review board oversight.

Results: Our search identified 2,308 academic urologists in the United States, yielding a calculated ratio of 0.7 academic urologists per capita. The highest ratio was found in the New York Section (3 per capita), while the South-Central section had the lowest (0.47 per capita), followed by the Southeastern Section (0.49 per capita). Oncology was the most common subspecialty among academic urologists, with 25% fellowship trained in oncology and accounting for .15 urologic oncologists per 100,000 persons. The Southeastern section accounted for the lowest number of urologic oncologists per capita, though, at 0.1. In total, the Southeastern section was below the United States average for each urologic subspecialty except for endourology.

Conclusion: Several states lack academic urology programs. While oncology care is prominently featured in academic medicine nationwide, notable gaps exist in the Southeastern Section. This data serves as a valuable resource for state societies and individual programs to discern regional gaps and facilitate targeted recruitment efforts for specialized practitioners to help meet the growing patient population.

Funding: N/A

Sections	General	Oncology	Endourology	Pediatrics	Female Pelvic Medicine	Reconstructive/Trauma	Infertility/Sexual Medicine	Robotics
New England	.24	.33	.11	.17	.19	.04	.07	.03
Northeastern	.42	.26	.11	.11	.04	.04	.02	0
New York	.62	.66	.51	.52	.38	.09	.2	.05
Mid Atlantic	.11	.18	.05	.13	.06	.11	.04	.13
Southeastern	.1	.1	.08	.06	.03	.03	.01	.01
North Central	.14	.16	.05	.1	.08	.02	.08	.02
South Central	.12	.1	.03	.06	.04	.02	.01	.04
Western	.12	.14	.04	.07	.05	.03	.04	.02
Total United States	.15	.17	.05	.1	.06	.04	.04	.03

Poster #88

ANALYSIS OF LONGITUDINAL CHANGE IN BLADDER CAPACITY FOR INTERSTITIAL CYSTITIS/BLADDER PAIN SYNDROME PATIENTS THAT UNDERWENT REPEAT BLADDER HYDRODISTENSION

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Presented By: Stephen Tranchina, MD

Introduction: Therapeutic options for interstitial cystitis/bladder pain syndrome (IC/BPS) include cystoscopy with bladder hydrodistension (HOD) and, due to benefits typically lasting ≤ 6 months, many patients choose to have repeat HOD. The objective of this study was to investigate whether patients having repeat HOD experienced a significant change in bladder capacity (BC) over time.

Methods: We had previously utilized chart review to identify IC/BPS patients who underwent HOD at our institution between 2009-2022. Patients with ≥ 2 HOD were included, and BC was measured following each HOD. For the current analysis, the existing database was updated to include HOD data from 2022-2024 and further identify patients who: (i) progressed from non-bladder-centric (i.e., BC > 500 cc) to bladder-centric (BC ≤ 500 cc), and (ii) went from bladder-centric to non-bladder-centric. Hunner Lesion (HL) status and glomerulations (graded from 0 to 3) at each HOD were also recorded.

Results: Overall, 16/221 (7.2%) patients progressed from a non-low BC to having a low BC at the time of final HOD (Group 1). Additionally, 15/221 (6.8%) went from low BC to having a non-low BC at the time of final HOD (Group 2). No group differences were apparent in number of HODs (5.38 (± 4.35) vs. 7.53 (± 5.50); $p=0.234$), time between first and last HOD (50.06 (± 32.85) vs. 72.60 (± 37.80) months; $p=0.086$), and age (54.19 (± 13.99) vs. 54.27 (± 14.62); $p=0.988$). Additionally, 4/16 (25%) patients who progressed to low BC ultimately underwent cystectomy and all were HL+. Surgery occurred an average of 30.5 (± 20.62) months after the first HOD. Finally, the average grade of glomerulations was lower among the group that "improved" from low to non-low BC (1.29 ± 0.66 vs. 1.91 ± 0.60 , $p=0.011$)

Conclusion: For most patients, IC/BPS appears to be a chronic rather than progressive condition. Using longitudinally collected BC data from a large patient cohort, we have identified two interesting patient subgroups; one consisting of patients that appear to be progressing towards end-stage bladder disease, and the other consisting of patients that appear to be improving. A combination of more HOD, over a greater time period, and a lower glomerulation burden, may underlie improvement in BC seen in a subset of IC/BPS patients.

Funding: N/A

	Non-Low to Low BC	Low to Non-Low BC
Number of patients	16	15
Average number of HOD	5.38 (± 4.35)	7.53 (± 5.50)
Average Change in BC From First to Last HOD (cc)	-217.19 (± 103.57)	313.67 (± 185.78)
Average Time Between First and Last HOD (Months)	50.06 (± 32.85)	72.60 (± 37.80)
Average Glomerulations Grade	1.91 (± 0.60)	1.29 (± 0.66)
Average Age at Final HOD	54.19 (± 13.99)	54.27 (± 14.62)
Underwent Cystectomy	4/16 (25%)	1/15 (6.67%)

Table 1. Descriptive Data. Summary of the descriptive data obtained via chart review describing patients who underwent multiple HOD and either progressed from non-bladder-centric (i.e., BC > 500 cc) to bladder-centric (BC ≤ 500 cc) or progressed from bladder-centric to non-bladder-centric.

Poster #89

INCIDENCE OF NEW MENTAL HEALTH DIAGNOSES IN TESTICULAR CANCER SURVIVORS

Siddharth Marthi, Gregory Palmateer, Talia Helman, Dattatraya Patil, Edouard Nicaise, Taylor Goodstein, Vikram Narayan, Kenneth Ogan, Viraj Master, Shreyas Joshi

Emory University Department of Urology

Presented By: Siddharth Marthi, MD

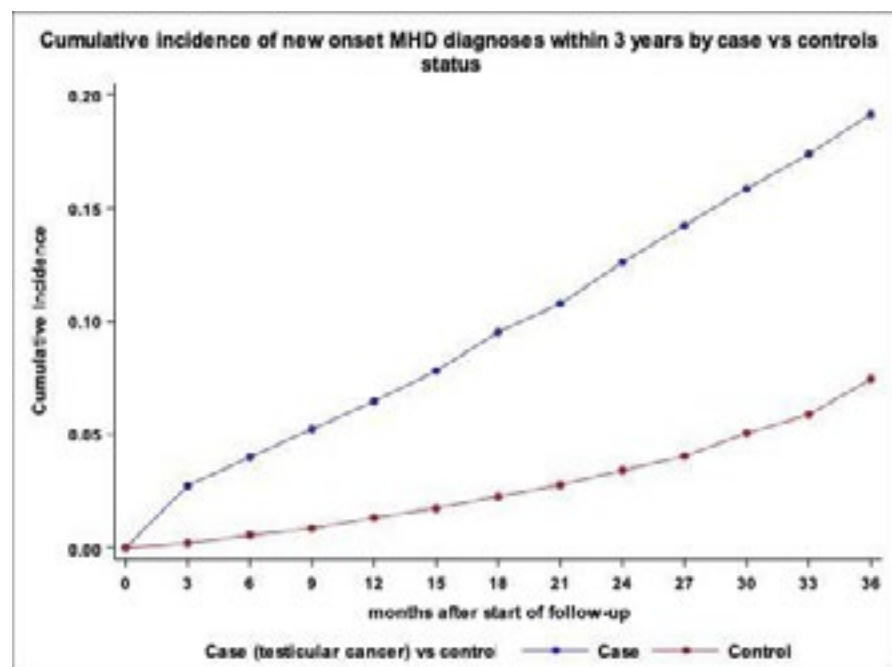
Introduction: Following a new cancer diagnosis, patients are at risk for being diagnosed with a mental health disorder (MHD). The presence of MHD is associated with longer hospital stays, decreased adherence to treatment recommendations, and worse disease-specific survival. As testicular cancer is very curable, survivorship and quality-of-life considerations are of particular importance. Our aim was to evaluate the incidence of and risk factors for MHD in patients after orchiectomy for testicular cancer.

Methods: Enrollment data and administrative billing claims were obtained from the Truven Marketscan Commercial Claims and Encounters database. Patients 18 years or older diagnosed with testicular cancer between 2009 and 2021 who underwent orchiectomy and maintained continuous insurance coverage spanning 6 months before and 12 months after diagnosis were included. Patients with MHD diagnosis prior to orchiectomy were excluded. Chemotherapy, RPLND, and radiation were defined as advanced treatments. Our primary outcome was any insurance claim associated with a new diagnosis of MHD at 12 and 36 months after orchiectomy. Factors predicting the onset of MHD were analyzed using multivariable logistic regression. Male patients with no lifetime cancer diagnosis and four years of continuous insurance coverage were identified as a control group and matched by age, insurance plan, and region.

Results: 5,946 patients met inclusion criteria. Of these, 555 (9.3%) and 909 (15.3%) had a new diagnosis of MHD within 12 and 36 months of orchiectomy, respectively. The cumulative incidence of new-onset MHD was significantly different among cases and controls over 12 months (9.2% vs 2.14%, log-rank $p < 0.0001$) and 36 months (19.14% vs 7.44%, log-rank $p < 0.0001$) of follow-up. In the multivariate regression, younger age, more recent year of diagnosis, higher Charlson comorbidity index (CCI) score, and receipt of advanced treatment were associated with MHD, whereas geographic location and insurance coverage were not.

Conclusion: Patients without prior MHD who underwent orchiectomy had a higher incidence of developing a MHD compared to matched controls. Receipt of advanced treatments and more recent diagnosis also increased risk of developing new MHD. Physicians should counsel patients at initial evaluation for testicular cancer of the increased risk of developing MHD and refer patients to receive appropriate interventions in the post-operative period.

Funding: N/A



Poster #90

STAGGERED-START ANESTHESIA PILOT DID NOT IMPROVE OPERATING ROOM EFFICENCY FOR ENDOUROLOGY SURGICAL CASES

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¹Department of Urology, Mayo Clinic, Jacksonville FL, USA, ²Division of Administration, Mayo Clinic, Jacksonville FL, USA

Presented By: Neda Qosja

Introduction: The Urology service was selected for a pilot program of anesthesia staggered starts. We assessed the principle of staggered starts on anesthesia release times and on-time starts for an endourology cases performed in a room with a fixed fluoroscopy table.

Methods: At our institution, all patients are scheduled to roll into the operating room at 0730. An "on-time" start is categorized as being in the room by 0730. With a staggered start time of 0715 for select Urology cases, it was proposed that the percentage of on-time starts would increase and that ART (time from anesthesia induction to patient positioning) would shorten. Data from the first 60 pilot days was compared to the previous 50 operating room days.

Results: 43/50 (86%) baseline patients had an "on-time start" compared to 50/60 (83.3%) pilot patients (no improvement). Wheels in to induction time in the baseline group was 7.77 minutes vs. 9.56 minutes in the pilot group (no improvement). Wheels in to anesthesia release time in the baseline group was 12.34 minutes compared to 15.93 minutes in the pilot group (no improvement).

Conclusion: Staggered anesthesia start pilot did not appear to improve "on-time" OR starts or in-room to anesthesia release time for endourology surgical cases.

Funding: NA

Poster #91

CLINICAL CHARACTERISTICS OF IC/BPS PATIENTS FROM A LARGE PATIENT REGISTRY WHO HAVE UNDERGONE CYSTECTOMY

Madeline Snipes, MD¹, Stephen Tranchina, MD¹, Robert Evans, MD¹, Gopal Badlani, MD¹, Stephen Walker, PhD²

¹Department of Urology, Wake Forest University School of Medicine, ²Wake Forest Institute for Regenerative Medicine

Presented By: Madeline Snipes, MD

Introduction: Due to significant symptom heterogeneity, interstitial cystitis/bladder pain syndrome (IC/BPS) continues to be difficult to treat, and although several treatment options are available, none are broadly effective. Per AUA guidelines, an IC/BPS patient refractory to standard treatment approaches may elect to undergo cystectomy. Prior published reports have suggested that most patients, especially those with Hunner lesions (HL) and/or significant lower urinary tract symptoms, achieve dramatic symptom relief following surgery. The objective of this study is to describe the demographic and clinical features of end-stage IC/BPS patients who choose to undergo cystectomy.

Methods: This retrospective analysis of a large cohort of IC/BPS patients examined demographic and clinical data collected from the electronic medical record that included anesthetic bladder capacity (BC), HL status, results for validated IC/BPS symptom questionnaires (O'Leary Sant Interstitial Cystitis Symptom Index and Interstitial Cystitis Problem Index (ICSI/ICPI) and the Pelvic Pain and Urgency/Frequency (PUF) scale), and comorbid non-urollogic associated conditions.

Results: Patients in our large IC/BPS registry who had undergone cystectomy (47/600; 39F:8M) had an average age at surgery of 54.33 (± 15.5). Average time between diagnosis and cystectomy was 5.04 years (± 4.72). Average anesthetic BC was 380 mL (± 227.98), with 78.7% of patients having low BC (≤ 500 mL) and 17/47 (36.2%) patients with a history of HL. 20% of patients reported chronic pelvic pain, 12.5% reported fibromyalgia, 14.9% reported migraines, 61.7% reported allergies, 17% reported asthma, 19.1% reported panic disorder, and 19.1% reported depression. 23% of patients had a smoking history. Average PUF total score was 25.8 (± 7.2), with average symptom score 16.7 (± 4.7), average bother score 9.14 (± 2.7). Average ICSI and ICPI were 15.9 (± 4.3) and 15.8 (± 3.2), respectively.

Conclusion: Hunner lesion is a hallmark of bladder-centric IC/BPS, yet only about 1/3 of patients in our registry who had undergone cystectomy were HL positive. This indicates that, though HL status may be predictive of post-operative patient satisfaction, it may not be predictive of end-stage IC/BPS and ultimately cystectomy. Additionally, >60% of patients that underwent cystectomy reported comorbid allergies, which aligns with evidence that mast cells are implicated in IC/BPS pathophysiology.

Funding: N/A

Table 1. Demographics, clinical characteristics, and symptom scores from a Cohort of patients who have undergone cystectomy within our IC/BPS registry.

Demographic Characteristics	N (SD)
Age at cystectomy	54.33 (± 15.5)
Sex	39 F, 8 M
Average parity (women)	2
Clinical Characteristics	N (% or SD)
Time between diagnosis and cystectomy	5.04 years (± 4.72)
Number of BOD	2.4 (± 2.1)
Hunner lesion positive	17 (36.2%)
Smoking history	11 (13.4%)
Chronic pelvic pain	12 (20%)
Fibromyalgia	5 (12.5%)
Migraines	7 (14.9%)
Allergies	29 (17%)
Asthma	8 (17%)
Panic disorder	9 (19.1%)
Depression	9 (19.1%)
Symptom Scores	Average Scores (SD)
PUF	25.8 (± 7.2)
PUF symptoms	16.7 (± 4.7)
PUF bother	9.14 (± 2.7)
ICSI	15.9 (± 4.3)
ICPI	15.8 (± 3.2)

Poster #92

APPLICATION AND OUTCOMES OF A STANDARDIZED, EVIDENCE BASED INSTITUTIONAL APPROACH TO TETHERED CORD MANAGEMENT IN PEDIATRIC UROLOGY

Rebecca Edwins, MD¹, Robert Harrison, MD¹, Ian Mutchnick, MD², William Gump, MD², Thomas Moriarty, MD, PhD², Dennis Peppas, MD³, Ahmad Mohamed, MD³, Katie Canalicchio, MD^{1,3}, Laura Cornwell, MD^{1,3}, Jeffrey White, MD, PhD^{1,3}

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Presented By: Rebecca Edwins, MD

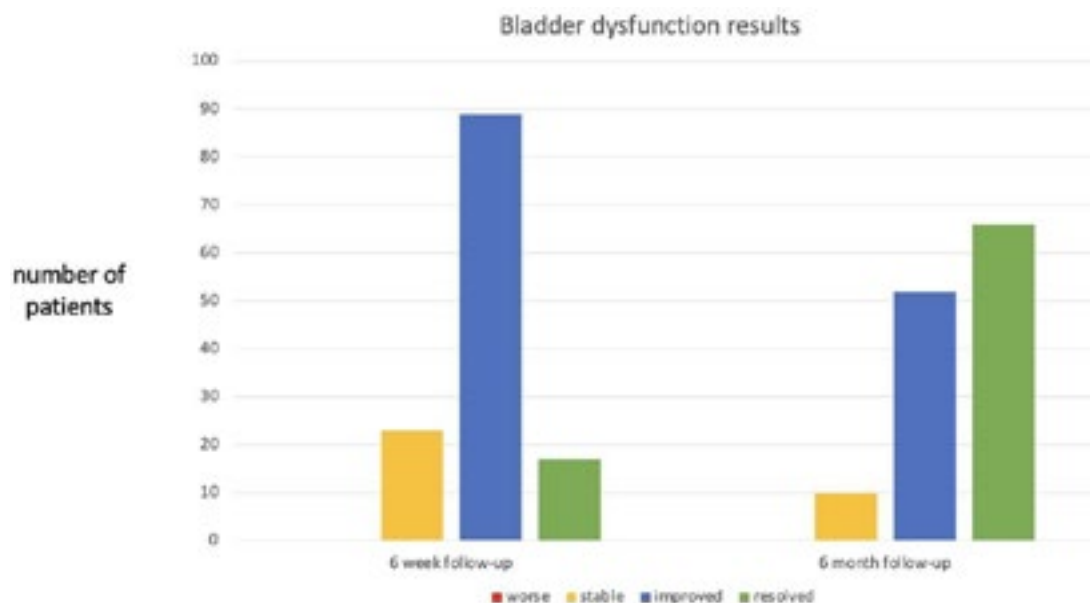
Introduction: Tethered cord syndrome (TCS) is a common diagnosis seen in pediatric urology, often presenting with bladder dysfunction. Despite extensive literature on defining and evaluating simple tethered cord (sTC), surgical management remains controversial. In this study, we aim to develop an algorithm for management of tethered cord and use this algorithm in collaboration with neurosurgery to determine suitable candidates for tethered cord release surgery.

Methods: Based on an EBM analysis of 93 papers from PubMed, an institutional standard for TC management was established with neurosurgery. After IRB approval, a prospective study was performed on all patients seen for sTC and managed using the surgical indications created during the year 2019. Data collected included demographics, clinical information, diagnostic and consultative outcomes. A multidisciplinary team comprising neurosurgery, urology, gastroenterology, general surgery, and/or orthopedics evaluated each patient. For patients who underwent surgical intervention, post-surgical follow-ups were conducted at 6 weeks and 6 months, with outcomes recorded on a four-point scale (worse, same, better, resolved). Statistical analysis was performed using Wilcoxon Signed-Rank Test and a linear regression model.

Results: In 2019, 729 patients were assessed for possible TC, and 151 underwent surgery based on the institutional algorithm. Two minor complications occurred, including surgical wound breakdown and upper extremity DVT. All surgical patients were symptomatic pre-operatively, with 76% presenting with three or more sTC symptoms. The most common presenting symptom was bladder dysfunction. 65% of these patients were evaluated by three or more subspecialties prior to surgery, with neurosurgery and urology being the most common. Significant improvements in symptoms (bladder, bowel, back pain, leg pain, gait, headache, tone) were observed in most patients. Specifically, bladder symptoms showed significant improvement over time in all patients who underwent surgery (six weeks vs six months, $p < 0.05$).

Conclusion: Surgical intervention for TC patients has low morbidity with significant improvement in symptoms post-operatively when managed via our institutional EBM algorithm. A standardized set of operative indications driven by a multidisciplinary, evidence-based algorithm for sTC was found to have high accuracy in identifying patients who benefit from surgery based on displayed symptom improvements.

Funding: N/A



Poster #93

COMPARISON OF OBSTRUCTIVE OUTCOMES IN PEDIATRIC AND ADULT PATIENTS FOLLOWING DEXTRANOMER/HYALURONIC ACID COPOLYMER (DEFLUX®) INJECTION FOR VESICoureTERAL REFLUX

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Presented By: Jordan Smith, MD

Introduction: Endoscopic injection of Deflux for treatment of vesicoureteral reflux (VUR) is a common and successful treatment option in pediatric patients. Postoperative ureteral obstruction is a rare complication, reported to occur in <1% of children. In contrast, the outcomes following Deflux injection in adults with VUR is considerably less understood and prompted our investigation.

Methods: We performed an IRB approved retrospective analysis on patients who underwent subureteric Deflux injection at our institution between 2000 and 2023. The review included demographic information, past medical history, urologic operative details, and postoperative outcomes. Data were analyzed using descriptive statistics.

Results: A total of 7 adult and 15 pediatric patients were identified to have undergone Deflux injection with a mean age of 39.7 years (range:18-53) and 7.9 years (range: 2-17) respectively. 6 of the 7 adults had a prior ureteral reimplantation, of which 4 ureters were reimplanted in a refluxing fashion as adults and 2 with a non-refluxing technique as children. One adult patient underwent injection twice due to persistent reflux, with 9 adult and 24 pediatric ureters injected. Table 1 shows operative details for all patients. 3 out of 9 (33%) adult and 0 pediatric ureters developed obstruction within 30 days of the procedure ($X^2=8.8$, $p=0.02$). All obstructed adult patients had prior reimplantation (2 had refluxing technique as an adult/1 non-refluxing technique as a child). The mean injected volume of Deflux in the obstructed group was 1.67mL versus 1.75mL in the non-obstructed group ($p=0.846$). 2 of the 3 obstructed adults had double HIT injections. In the obstructed adults, 1 resolved with conservative measures, while 1 required placement of a percutaneous nephrostomy tube, and 1 required ureteral stent placement. On long-term follow-up with a mean of 36 months (range: 4-72), 2 (29%) adult patients required nephrectomy, 1 for persistent ureteral obstruction and pain and 1 for chronic pain and recurrent UTIs. No pediatric patient developed delayed obstruction with loss of renal function on long-term follow-up (mean of 19 months).

Conclusion: Postoperative acute and chronic ureteral obstruction following sub-ureteric Deflux injection is rare in children. In contrast, adult patients have significantly higher rates of post-operative obstruction, particularly in those following ureteroneocystostomy.

Funding: N/A

Table 1. Injection volume and type per ureter

	Adult (N=9)	Pediatric (N=24)
Average Volume (Range)	1.72 mL (1.0-2.0mL)	1.31 mL (0.5-4.5mL)
Type of Injection		
Double HIT	2 (22.2%)	14 (58.3%)
HIT	7 (77.8%)	8 (33.4%)
STING	0 (0%)	2 (8.3%)

Poster #94

THE EXPERIENCE OF TOILET TRAINING IN DUCHENNE MUSCULAR DYSTROPHY

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Presented By: Joanna Orzel, BA, MD

Introduction: Duchenne muscular dystrophy (DMD) leads to the loss of continuity of muscle function in the body and has also shown dysfunction in the smooth muscle calls in the bladder and afferent nerve fibers in animal models. There is a need to further evaluate genitourinary system function in DMD patients as a high percentage have lower urinary tract complaints, significantly impacting the daily life of patients and caregivers.

Methods: An IRB-approved electronic survey was created on REDCap designed to capture the interest, timing, success rates, and disease severity of toilet training in individuals with DMD. This was then administered to individuals diagnosed with DMD and/or the parent/guardian of minors with DMD. Descriptive statistics were performed.

Results: 57 participants filled out the survey with 96.5% having genetically confirmed DMD. 31 individuals completed toilet training. The mean age of showing interest in toilet training was 3.2 years (+/- 1.46 years). The mean time to toilet training was 14.45 months (+/- 17.74 months) with mean age at full toilet training being 4.38 years (+/- 1.71 years). 46.7% of participants felt that their child had delayed toilet training. 26.7% had concerns about constipation during toilet training.

31% of children experienced accidental wetting, with the average age of wetting starting at 6.89 years old. Of these children, 66.7% noted that wetting occurred after steroids were started. 29% of participants have received a diagnosis of an intellectual or learning disability. 8 participants have received a diagnosis of attention deficit hyperactivity disorder.

Conclusion: To our knowledge, this is the initial study describing toilet training habits of children with DMD. There is a focus in quality of life with the advances in DMD care and this information can be used to help guide caregivers who will be or are going through toilet training with their children. Prior research has shown a significant prevalence of lower urinary tract symptoms and concern for development bladder bowel dysfunction and therefore, there is a need to understand the foundation of toileting in this patient population.

Funding: N/A

Poster #95

THE EFFECT OF AN EDUCATIONAL PAMPHLET ON PARENTAL KNOWLEDGE OF OPIOIDS FOLLOWING PEDIATRIC UROLOGIC SURGERY

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Presented By: Charis Royal

Introduction: Opioid misuse has become a public health crisis in the United States, affecting individuals of all ages, including children. Research shows a gap in perioperative opioid education, leading to improper use and disposal of excess opioids. This study aims to evaluate caregiver knowledge of prescription opioids and assess the impact of enhanced perioperative education on opioid use.

Methods: This study included 61 caregivers of pediatric urology patients from our outpatient clinic. Participants were randomly assigned to one of two groups: an assessment-only group or a group receiving an educational pamphlet followed by the same assessment. Data collected included caregiver and patient age, prior opioid knowledge and use, and preferred learning methods. Statistical analysis was performed using R, with t-tests for continuous variables and chi-square tests for categorical variables.

Results: A total of 61 caregivers participated, with 31 receiving the pamphlet before the assessment and 30 completing the assessment without prior education. Of the participants, 26/61 (42.6%) scored above the median. Notably, 20/31 (76.9%) in the pamphlet group scored above the median ($p < .001$). Caregivers who self-reported higher knowledge of opioids performed better on the assessment ($p < .001$). Most caregivers had learned about opioids from the internet or medical professionals, with the preferred educational methods being provider conversations and pamphlets.

Conclusion: Caregiver knowledge is crucial in preventing opioid misuse among pediatric patients. Providing educational materials prior to opioid prescription significantly improves caregiver understanding of opioid safety and handling. Furthermore, discussions with healthcare providers can enhance knowledge, potentially reducing the risk of opioid misuse in this vulnerable population.

Funding: N/A

Poster #96

EVALUATION OF IMPACT OF TRANSFER AND TRANSFER TIME ON TESTICULAR SALVAGE IN CHILDREN WITH TESTICULAR TORSION

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Presented By: Christian Richard Lee, BS

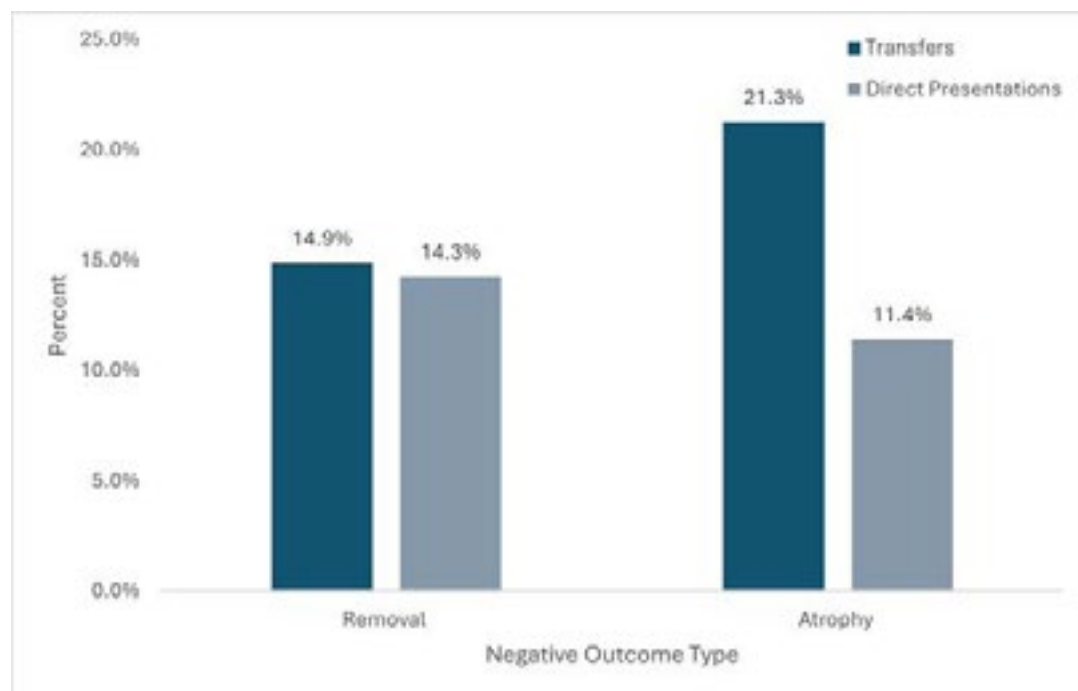
Introduction: Time from onset of testicular torsion (TT) to detorsion is critical to testicular salvage. Delaying time to surgical intervention reduces the chance of testicular salvage.¹ Research evaluating the impact of transfer time on salvage rates in pediatric TT is limited. UK studies led to the Royal College of Surgeons of England (RCSE) determination that TT cases should be managed at the presenting hospital when at all possible.² In the UK, this legally binds urologists/surgeons to manage TT regardless of pediatric subspecialty certification.³⁻⁶ In the US pediatric TT cases are frequently transferred, regardless of age and health status. This study's goals are to examine transfer time's effect on TT outcomes and compare TT outcomes for direct and transfer patients to a children's hospital and determine if the data supports the UK practice. Patients <18 during surgical treatment at Nemours Children's Health Orlando (NCH) from 2020-2024 were included in this IRB approved retrospective chart review.

Methods: After exclusions (neonatal/perinatal torsions), 82 direct presenting and transfer patients were identified. We evaluated age, time (symptom onset to referring ED, symptom onset to surgery, transfer initiation to NCH ED, NCH ED to OR), transport method, NCH repeat ultrasound (US), US results, surgical outcome, follow up, distance, comorbidities, and TWIST score. A negative outcome (NO) was defined as orchiectomy or atrophy.

Results: Our data shows transfer cases had higher incidences of NO than direct presentations. Transfers had 36.2% NO's while direct presentations had 25.7%. The data also shows that longer transfer times resulted in more NO's. Short transfers (<1 hour) had 9.1%, medium transfers (1-1.75 hours) had 33.3%, and long transfers (>1.75 hours) had 66.7% NO.

Conclusion: For specific NO's transfers and direct presentations had similar removal rates, while transfers had much higher atrophy rates. Time from onset of testicular torsion to detorsion is critical for testicular salvage. In the UK, attention to expeditious treatment is reflected in the expectation that surgeons treat TT avoiding routine transfers. Our data supports the notion that increases in transfer time increase NO's for pediatric TT. The data showed that transfer patients have significantly higher NO's than direct presentations. Lastly our data supports the UK guidelines.

Funding: N/A



Poster #97

THE USE OF ADJUNCT ALPHA-2 AGONISTS FOR DDAVP REFRACTORY NOCTURNAL ENURESIS: A RETROSPECTIVE MULTI-INSTITUTIONAL REVIEW

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Presented By: Ketch Cowan, BS, MD

Introduction: Desmopressin (DDAVP) is widely recognized as the first-line medical treatment for nocturnal enuresis (NE). In patients who fail DDAVP, there are limited effective treatment options. DDAVP + oxybutynin at best has a 10% complete response rate. Imipramine has been shown to have up to a 68% complete response rate in combination therapy. We are looking for alternatives for imipramine in patients not able to tolerate the medication. This study evaluated the effectiveness of adding an alpha-2 agonist as an adjunct therapy for NE in patients who did not respond to DDAVP monotherapy.

Methods: A retrospective chart review of the combined database of 2 institutions for patients with NE was performed. All patients who were initially prescribed DDAVP monotherapy for NE, followed by an alpha-2 agonist, either Guanfacine or Clonidine, were included. Effectiveness was examined by comparing pre- and posttreatment wet nights per week and Vancouver Symptom Scores (VSS).

Results: 46 patients were identified who were prescribed either Guanfacine or Clonidine in combination with DDAVP after failed monotherapy. Of these patients, the average age was 11.5 years, with 34 males and 12 females. Average wet nights per week while on DDAVP alone was 4.6, which decreased to an average of 3.1 after DDAVP and an alpha-2 agonist. After dual therapy, 24% of patients had a complete response (0/7 nights wet), 43% had a partial response (<4/7 nights wet), 24% had no response and 9% were lost to follow-up. Average pretreatment VSS was 3.8 compared to a posttreatment VSS of 2.9.

Conclusion: Patients started on a combination of DDAVP and Clonidine or Guanfacine after failed monotherapy had a complete response 24% of the time, with 43% of patients having a partial response. The use of alpha-2 agonists and these results further validate the idea that frontal lobe norepinephrine levels are the likely mechanism to correct refractory NE.

Funding: N/A

Table 1: Average Wet Nights Score and Response Rates

	Average Wet Nights		Response Rates		
	Before Treatment	After Treatment			
DDAVP + Alpha-2 Agonist		4.6	Complete	11	24%
		3.1	Partial	20	43%
			No Response	11	24%
			Noncompliant/ No Follow-Up	11	9%
			Partial and Complete	31	67%

Poster #98

A GEOGRAPHICAL DISTRIBUTION OF ISOLATED PENILE TORSION AND CHORDEE IN PEDIATRIC POPULATION IN THE OHIO RIVER VALLEY

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Presented By: Gabriel Leonardo Carreno, MD

Introduction: Isolated Penile torsion and chordee, usually associated with hypospadias, are rarely seen in isolation. Our clinical observations reveal a notable number of isolated cases of penile torsion and chordee without concurrent hypospadias. This study aims to quantify these cases, examine their geographical distribution by Zip code, and explore demographic and maternal factors that might influence these findings.

Methods: We conducted a retrospective review of patients at a Louisville, KY institution over the past five years. We included patients diagnosed with penile torsion or chordee, excluding those with hypospadias. Data were extracted from electronic medical records using ICD-10 and CPT codes, and demographic details, including home Zip codes, were collected.

Results: Out of 5,451 patients initially identified, 1,707 (31%) were excluded due to hypospadias. Among the remaining 3,744 patients (69%), 76% had penile torsion, 71% had chordee, and 47% had both conditions. The mean birth weight was 3.24 kg (SD \pm 0.66), and the average gestational age was 38.2 weeks (SD \pm 2.31). Low birth weight (<2500 grams) was noted in 209 infants (5.58%). Maternal health factors included infectious diseases (8%), gestational/maternal diabetes (7%), with intrauterine drug exposure at 1%, and minimal exposure to smoke, alcohol, and environmental chemicals. The racial distribution was 61% Caucasian, 24% African American, 4% Hispanic/Latino, 2% Asian, with other groups constituting smaller percentages.

Geospatial analysis revealed the highest concentration of cases in the 40216 zip code (Shively, southwest Louisville, KY), with 132 cases (3.5%). Other notable areas included 47130 (Jeffersonville, IN) with 125 cases (3.3%), and 40214 (Iroquois Park and Beechmont, Louisville) with 122 cases (3.2%). Additional high-density areas were Okolona (40219), Hillview, Pioneer Village, and Hebron Estates (40229), Valley Station (40272), and Fern Creek (40291).

Conclusion: Isolated penile torsion and/or chordee appear more common than previously thought. Maternal infections and diabetes were frequent health factors. Predominantly Caucasian patients, followed by African American individuals, sought care for these conditions. The regional prevalence underscores the need for specialized healthcare services and suggests potential unidentified environmental factors specific to the population.

Funding: None

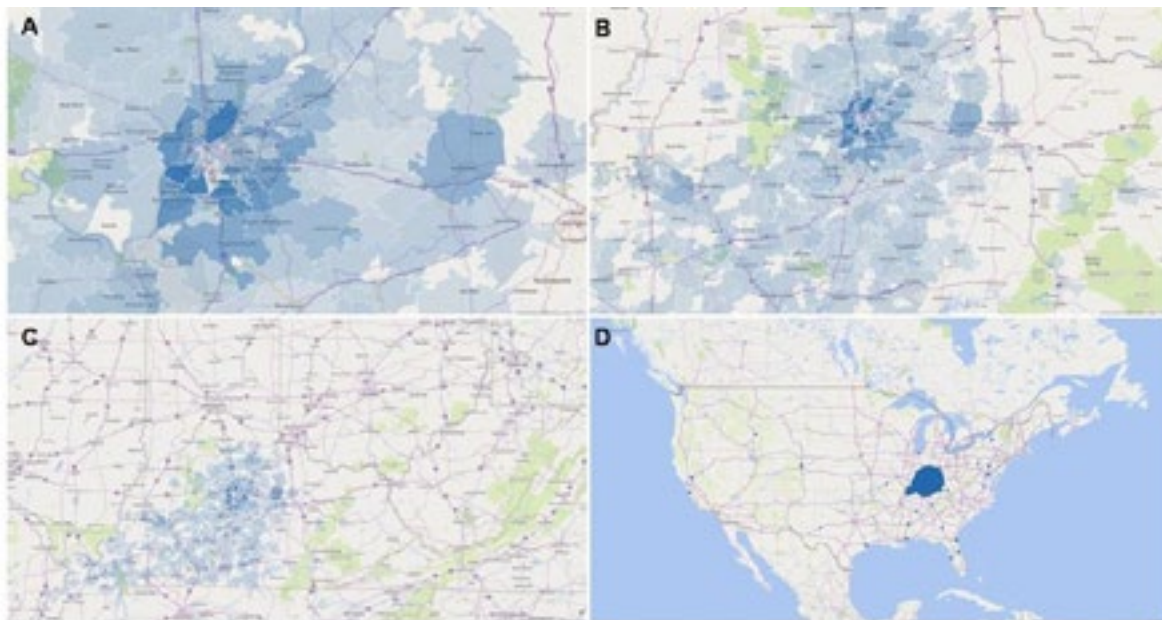


Figure 1 illustrates the geographical distribution of patients with penile torsion and Chordee based on Zip code analysis. Darker areas denote higher concentrations of cases. The analysis is presented across different scales: A. A focused view of the Louisville metro area. B. A zoomed-out perspective capturing adjacent areas surrounding Louisville. C. An expanded view encompassing the state of Kentucky. D. A comprehensive overview depicting the distribution of patients across the entire United States.

Poster #99

SAME DAY PEDIATRIC UROLOGY SURGICAL CANCELLATIONS: IDENTIFYING TRENDS FOR QUALITY IMPROVEMENT

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Presented By: Tyler Lynne Overholt, MD

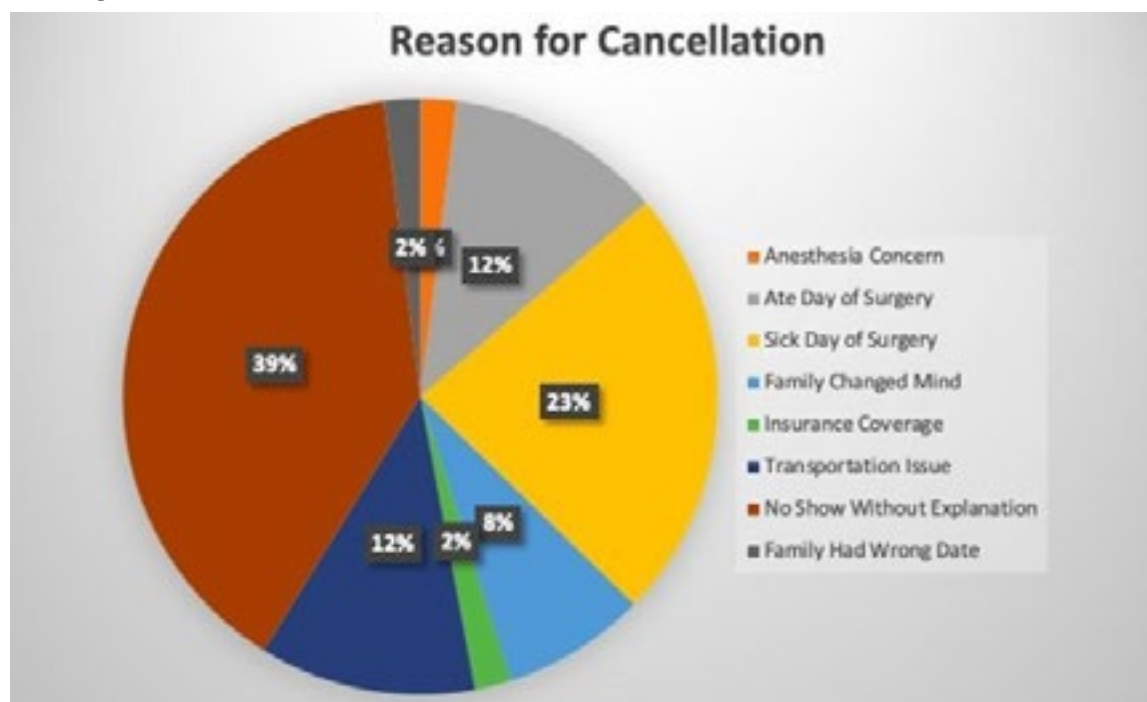
Introduction: Day of surgery cancellations present several challenges to workflow, resulting in delay of care for patients and revenue loss for physicians. Understanding trends in same-day cancellations may provide insight for quality improvement. Herein, we assessed same-day pediatric urology cancellations.

Methods: Same-day pediatric urology surgical cancellations were prospectively identified at a tertiary institution from 10/01/2022-9/30/2023. Cases that were cancelled within 24 hours, but prior to the surgery date, were excluded. Demographics and peri-operative data were reviewed. The reason for cancellation as stated by the parent/legal guardian was recorded and placed in one of two categories: avoidable or unavoidable causes. Surgical rescheduling data and lost operating room time were recorded. Descriptive and bivariate analyses were performed as indicated.

Results: Of 2,351 cases, 51 (2.2%) were cancelled on the day of surgery. The majority (86.3%) were minor surgeries and summer was the most common time of year for cancellations (43.1%). A total of 66.7% of cases were for patients of a minority race, with 11.8% of families indicating need for translation services. Median distance lived from the surgical site was 22 (IQR 12-49) miles. The most common cancellation type was a complete no-show without stated reason from family (39.2%). Of those with reported reason for cancellation, 54.8% were cancelled for avoidable reasons (Figure 1). When comparing avoidable versus unavoidable reasons for surgical cancellation, no significant differences were identified in terms of race ($p=0.667$), distance lived from the hospital ($p=0.899$), or type of surgery ($p=0.325$). Only 51.0% were rescheduled for a later date with median delay of 38 (IQR 28-63) days. A total of 59.33 hours of operating room time was lost during the study period from these cancellations.

Conclusion: Same-day cancellations were identified in 2.2% of planned pediatric urology cases over a one-year period, with the majority of patients cancelled for avoidable reasons. Of cancelled cases, only 51.0% were actually rescheduled by the family with a median delay of over one month. Additionally, 2/3rd of patients identified as a minority race with 11.8% requiring translation services. This represents a vulnerable population who may require additional counseling for optimal patient and provider outcomes.

Funding: N/A



Poster #100

RENAL PYRAMIDAL THICKNESS AS A METRIC TO PREDICT OBSTRUCTION IN PATIENTS WITH CONGENITAL NON-REFLUXING MEGAURETER

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Presented By: Angelena Brittany Edwards, MD

Introduction: Early identification of obstruction and accurate risk stratification in patients with antenatal detected hydronephrosis is an ongoing clinical concern for practicing pediatric urologist and maternal fetal medicine specialists. Renal medullary pyramid thickness (PT) has been shown to be a marker of obstruction and predictor of pyeloplasty in the setting of hydronephrosis, but PT has not been assessed in patients with hydroureteronephrosis.

Objective: The aim of this study was to determine the prognostic value of PT in predicting clinically significant obstruction: 1) the PT on postnatal ultrasound in the first 4 months of life, 2) the relative renal function on renography and its relationship to PT, 3) the ratio of the PT in the hydronephrotic kidney to the PT in the normal contralateral kidney in those with unilateral hydronephrosis, and 4) the degree of hydroureter on ultrasound (ureteral diameter) and its relationship to PT. We hypothesized that predictors of obstruction and decreased relative renal function as well as surgical intervention would include, a smaller PT, as well as a decreasing PT between the first and second ultrasound, a decreased ratio of hydronephrotic PT to the contralateral normal kidney, and an increased ureteral diameter.

Study Design: 31 infants (22 boys and 9 girls) including 8 with bilateral hydroureteronephrosis met eligibility criteria (39 kidneys). The median age (IQR) at first ultrasound was 37.0 (15.5-53.0) days. Among patients with unilateral hydroureteronephrosis, there was a significant difference of 3.20mm (IQR 2.35,4.32) in PT between their affected kidneys 2.37mm (IQR 1.87,2.88) and their normal contralateral 5.66 (IQR 4.99,6.78) ($p < 0.001$). There was no evidence of significant association between either PT or PT ratio of affected kidney to normal kidney and surgery. Ureteral diameter was a significant predictor of surgery with every 1 mm increase in the ureteral diameter associated with a 28% increase in the odds of surgery ($p = 0.01$).

Conclusion: There was a significant difference in the PT of the affected kidney with hydroureteronephrosis, compared to the contralateral normal kidney. There was also weak evidence for an increase in PT on follow-up imaging in those that did not undergo operative intervention as well as in the surgical cohort when comparing preoperative to post-operative imaging.

Funding: N/A

Poster #101

CHANGING THE TREATMENT STRATEGY FOR PEDIATRIC VOIDING DYSFUNCTION

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Presented By: Christopher Haaga

Introduction: Voiding dysfunction is a common problem in children and specialized care for this issue is often limited. Telemedicine allows access to specialized clinicians for these patients in rural or underserved areas, but the perception of telemedicine as an inferior treatment strategy persists. This study aims to collect data on the treatment of pediatric voiding dysfunction using telemedicine.

Methods: A retrospective chart review was performed for children presenting to the Virtual Healthy Voider Clinic at Children's Hospital New Orleans (CHNOLA) between November 2019 and September 2020. Variables from patients treated via telemedicine and in-person visits were gathered for analysis. Treatment response to their primary complaint was measured as a percent and defined as no response (0-49%), partial response (50-89%), response (>90%), and complete response (100%) after their last recorded visit.

Results: A total of 229 patients met the inclusion criteria for this study. Patient demographics are detailed in Table 1. The mean distance of patients' home address to CHNOLA was 64.86 miles (1.2-260 miles). 72.4% were seen initially in the virtual setting with only 12.2% needing a subsequent in-person visit. The most common diagnosis at initial visit was nocturnal enuresis (67.7%), followed by daytime incontinence (38%) and recurrent UTIs (19.7%). Many participants had multiple diagnoses. For patients with multiple visits, treatment responses of >50% were 63.3%, 83.9%, and 90% for nocturnal enuresis, daytime incontinence, and recurrent UTIs, respectively.

Conclusion: Our early findings suggest the treatment of pediatric voiding dysfunction through telemedicine proves to be a viable option, especially for those who may have limited access to specialized care. Further work will examine health-related quality of life in the use of telemedicine and costs associated with this method of care compared to in-person care.

Funding: N/A

Table 1

Mean Age	11.52	(3-17 years)
Sex		
Male	95	(41.5%)
Female	134	(58.5%)
Race		
White	114	(57.0%)
Black	80	(40.0%)
Hispanic or Latino	3	(1.5%)
American Indian, Alaskan Native	3	(1.5%)
Insurance Status		
Medicaid	142	(68.9%)
Commercial	62	(30.1%)
Uninsured	2	(1.0%)

Poster #102

COULD SELECTIVE PRE-OPERATIVE ULTRASOUND HELP GUIDE SURGICAL MANAGEMENT IN CRYPTORCHID TESTES?

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LSU Health Shreveport

Presented By: Seth Swinney, MD

Introduction: According to current guidelines, the AUA recommends against routine use of sonographic imaging in the evaluation of undescended testes as it infrequently assists in decision making regarding surgical approach. Currently, scant literature takes into account the advantages urologic ultrasonographers in combination with image interpretation by a urologist offers in regards to diagnostic accuracy in select patients. This retrospective study aims to analyze the accuracy of ultrasound in regards to location of cryptorchid testes in order to guide surgical planning.

Methods: A retrospective review was performed on the records of males, aged 6 months to 18 years of age, who presented with non-palpable cryptorchid testes from 1/1/2018 to 1/1/2024 at Ochsner LSU Health Shreveport. Those with disorders of sexual development and children initially with cryptorchidism that were descended by 6 months of age were excluded from this study. All underwent pre-operative physical exam and ultrasonography to determine regionality of testis performed by a single urologic ultrasonographer which was interpreted by one pediatric urologist and urology residents. Outpatient notes, sonographic image interpretations, and operative reports were used in data collection.

Results: Of the 256 scrotal ultrasounds performed for cryptorchidism in the study period, 131 boys (171 undescended testes) met inclusion criteria. The mean age at diagnosis was 55 months (4.6 years). Forty-two percent were born at term, 26% were premature, and 32% did not have birth data available. Mean BMI was 19.8 kg/m². Of the 138 ultrasounds showing testes in the inguinal canal, 75 (54.3%) underwent inguinal interventions, 58 (42%) underwent scrotal intervention, and 5 (0.04%) descended spontaneously prior to surgery. Of the six cryptorchid testes that underwent diagnostic laparoscopy in our study, 5 ultrasounds (83%) showed absence of a testis in the inguinal canal.

Conclusion: Our data suggests that ultrasonography in the setting of a committed urology outpatient team may aid in diagnostic accuracy and surgical planning in regards to localization of cryptorchid testes in select patients. We agree ultrasound is not useful on a routine basis. With use of ultrasonography, we avoided diagnostic laparoscopy in at least 54.3% of males between 6 months and 18 years of age at our institution.

Funding: N/a

Poster #103

PRE AND POST CYSTOSCOPY PAIN IN PATIENTS UNDERGOING FIRST OFFICE BASED FLEXIBLE CYSTOSCOPY

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Presented By: Amanda Elizabeth Kahn, MD

Introduction: Outpatient cystoscopy used for urologic work-up and diagnostics is among the most common of urologic procedures. However, the anticipation of pain with cystoscopy remains a significant barrier for patients. A lack of data exists to help counsel patients on the pain typically experienced during cystoscopy. We aim to evaluate the patient-anticipated degree of pain versus the experienced degree of pain pre- and post-cystoscopy in patients undergoing their first outpatient cystoscopy in our urology clinic.

Methods: We studied 39 patients who underwent their first ever office-based cystoscopy. All cystoscopies were performed with the disposable Ambu aScope 4. Anticipated cystoscopy-associated pain was judged with a pre-procedural score, and pain experienced during the cystoscopy was judged with a post-procedural score. All patients graded their pre- and post-cystoscopy pain using a standard 10-point scale (0-10).

Results: Medians and interquartile ranges (IQRs) of the patients' age [65 years (54.5-68.0)], pre-procedural pain [7 (5-8)], and post-procedural pain [2 (1-3)] were recorded. Thirty (77%) patients were male and 9 patients (23%) were female. Patients with chronic pain syndromes were excluded. The average pre-procedural prediction pain score was 6.56 ± 2.18 ; the average post-procedural perceived pain score was 2.36 ± 1.72 . Thus, there was an average decrease of over 4 points in predicted pain vs perceived pain. A paired t-test was performed which showed a statistically significant difference between pre- and post-cystoscopy pain scores ($P < .05$). A Wilcoxon Signed Rank Test showed statistical significance in the difference between pre- and post-cystoscopy pain scores ($P < .05$). There was no significant difference observed between expected ($P=0.84$) or experienced ($P=0.59$) pain scores between male and female patients. There was also no observed difference based on age, when comparing patients 65 and younger to those older than 65 years of age (expected $P=0.18$, experienced $P=0.19$).

Conclusion: Patients experience significantly less pain with outpatient cystoscopy than they anticipate having. This is the first report to describe the discrepancy between pre-cystoscopy anticipated pain and post-cystoscopy experienced pain. This represents an important factor to consider when counseling patients about the use of cystoscopy to evaluate gross hematuria, benign prostatic hyperplasia and other urologic pathologies.

Funding: N/A

Poster #104

UROLOGIC PREOPERATIVE ANTIMICROBIAL PROPHYLAXIS; THE INCREASING PREVALENCE OF ENTEROCOCCUS

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Medical College of Georgia

Presented By: William Michael Pearson, BS

Introduction: Preoperative treatment for bacteriuria, symptomatic or not, is standard Urologic practice. American Urological Association guidelines recommend the use of cephalosporins, particularly cefazolin, for most urologic procedures. However, Enterococcus species are intrinsically resistant to cephalosporins. Assuming preoperative urine cultures reflect the colonization rates present during surgery, our institution has adopted the use of ampicillin (Amp) and gentamicin (Gent) preoperatively for endoscopic procedures to provide coverage for our high rate of Enterococcus bacteriuria. This combination provides appropriate coverage for Enterococcus, while maintaining adequate coverage for other typical genitourinary flora. The goal of this study was to assess the rate of preoperative urine colonization by various organisms, particularly Enterococcus spp., and associated susceptibilities.

Methods: A retrospective chart review of all preoperative urine cultures during 2022 for patients undergoing urologic surgery at our institution was conducted. Fisher's exact tests were calculated to determine if there was an association between race, sex, and diabetic status with culture results (positive or negative). Similarly, Fisher's exact tests were calculated to determine if there was an association between race, sex, and diabetic status with Enterococcus results (positive or negative). Mann-Whitney-U tests were calculated to determine if age differed across culture results and Enterococcus results.

Results: A total of 1,108 urine cultures were analyzed. Of those, 474 (43%) were positive. Unsurprisingly, women and those with diabetes mellitus were more likely to have positive cultures, 59.4 % vs. 34.2 % and 48.7 % vs 40.6 % respectively ($p < 0.05$). The largest portion of positive cultures grew mixed flora, 119 (25.2 %). Fifty-three cultures grew Enterococcus spp. alone (11.2%). Of those 9 (16.9%) were resistant to Amp, and 7 (13.2%) were resistant to Vancomycin.

Conclusion: When compared to the national average of ~5%, the rate of Enterococcus bacteriuria at our institution is significantly higher (11.2%). With a resistance rate of 16.9% to Amp alone (likely less when administered with Gent3), a combination of Amp and Gent is an appropriate alternative to Cephalosporins for intraoperative antimicrobial prophylaxis against Enterococcus. At a price of only \$4.95 per treatment, Amp and Gent is comparable in cost to cefazolin (\$4.12). For those with B-lactam allergies, vancomycin is a viable alternative.

Funding: N/A

Poster #105

EVALUATING FOLLOW-UP AND RENAL FUNCTION OUTCOMES IN TRAUMA PATIENTS WITH UROLOGIC INJURIES: INSIGHTS FROM A LEVEL 1 TRAUMA CENTER

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University of Louisville, Department of Urology

Presented By: Whitney Jean Richardson

Introduction: Traumatic injuries are a leading cause of death in the United States and a significant cause of morbidity and loss of productive life across all ages. Genitourinary injury often occurs in the context of severe polytrauma with sequela requiring follow-up. Renal impairment, a common complication of genitourinary injury, can result in long-lasting dysfunction. Therefore, we aimed to assess the significance of kidney dysfunction and follow-up patterns among patients with renal trauma.

Methods: We conducted a retrospective review of a prospectively-managed institutional database of patients admitted to a level 1 trauma center from 2020-2023. Patients with renal injury were identified and outcomes were assessed, including age, serum creatinine (sCr), AAST injury grade 1-3 (low) or 4-5 (high), and follow-up patterns.

Results: Of 447 patients initially reviewed, 284 survived hospitalization following presentation with renal trauma. Over 33% (97/284), median age 32 (range 14-85) years, were found to have an elevated sCr median creatinine 1.44 (range 1.03-5.77) mg/dL consistent with acute kidney injury (AKI) on admission. Non-urologic surgical services recommended/arranged polytrauma injury-related follow-up for 84.5% (82/97), with an 80% (66/82) success rate. Urology recommended/arranged follow-up for 72% of the 22 patients consulted upon, with 75% (12/16) success. Nearly 80% (77/97) of patients presenting with AKI had repeat sCr measures obtained a median 12 (range 1-42) months after injury. Of these, 21% (16/77) demonstrated persistent elevation with median sCr 1.42 (range 1.09-2.32) mg/dL. Low-grade renal injuries were present in 37.5% (6/16). Among the 16 patients with persistent sCr elevation, 75% had been recommended for follow-up with non-urologic surgical services, with 83% success. Urology was consulted in 37.5% (6/16) and recommended follow-up in 16.7%. However, no patients had sCr intentionally assessed by specialty services after hospitalization. Renal dysfunction was incidentally assessed in subsequent unrelated visits, including the emergency department (7/16), primary care (4/16), and preoperatively (1/16).

Conclusion: Post-renal trauma follow-up is primarily guided by context of specialty-related polytrauma. Upwards of 20% of patients with AKI, even low-grade injuries, may be at risk for long-term dysfunction. Given the high incidence of appreciable chronic kidney disease, adequate follow-up should be considered for any patient presenting with AKI and any grade of renal injury.

Funding: N/A

Poster #106

ROLE OF INGUINAL LYMPH NODE DISSECTION IN CLINICALLY NODE-NEGATIVE PENILE CANCER AMONG THE ELDERLY POPULATION

Arjun Pon Avudaiappan¹, Pushan Prabhakar¹, Daniel Ajabshir^{1,2}, Manuel Ozambela Jr.^{1,2}, Ahmed Eldefrawy^{1,2}, Christopher Gomez^{1,2}, Murugesan Manoharan^{1,2}

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Presented By: Arjun Pon Avudaiappan, MD

Introduction: Penile cancer (PC) is a rare malignancy in the United States, with an incidence of 0.58 per 100,000 population. In clinically node-negative (cN-) PC, the risk of occult metastasis is approximately 23%. Therefore, guidelines suggest bilateral inguinal lymph node dissection (ILND) in intermediate and high-risk PC. However, concerns about morbidity associated with ILND limit its utilization among cN- PC in the elderly population. Hence, it is crucial to understand the survival outcomes among older individuals treated with and without ILND. Our study used the National Cancer Database to compare the survival outcomes among cN- PC treated with and without ILND.

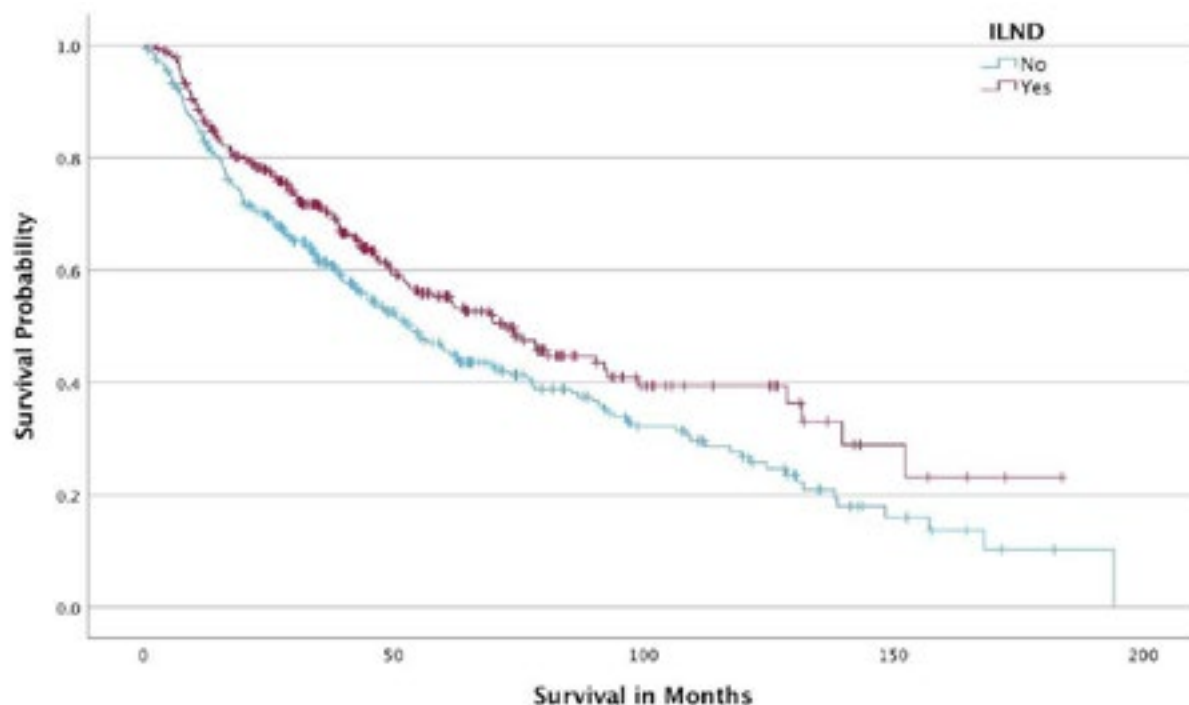
Methods: Our study included individuals aged 70 and above diagnosed with localized PC with squamous cell histology (cT1b-3N0M0) between 2004 and 2020. They were categorized into the ILND cohort and the non-ILND cohort. Similarly, among patients who underwent ILND, lymph node yield <15 was considered inadequate, and ≥15 was considered adequate. A propensity-score matching was performed with facility type, race, ethnicity, median income, comorbidity index, tumor stage, and age. Later, a Kaplan-Meier survival analysis was done to compare the overall survival (OS) outcomes between ILND and non-ILND cohorts.

Results: Of 5624 patients with localized PC, 2706 were 70 years and above and met our selection criteria. Among them, ILND cohort had 330(12.2%), and non-ILND cohort had 2,376(87.8%) patients. In ILND cohort, 190(57.6%) had adequate, and 140(42.4%) had inadequate ILND. After propensity-matching, each arm had 328 patients. The median OS for the ILND cohort was 72.3(95% CI, 57.5 – 87.2) months, and for the non-ILND cohort was 53.2(95% CI, 43.7 – 62.7) months (p<0.05). Based on tumor stratification, T1b-T3 had better OS with PLND compared to those without PLND. Patients with LNY ≥15 had better 5-year OS compared to LNY <15 (62.4% vs 47.4%, p<0.05)

Conclusion: In our study on older individuals with cN- PC, we observed that though utilization of ILND has been limited, patients undergoing ILND with an LN Yield of ≥15 had better OS. Therefore, ILND could be considered a viable option for carefully selected cN- PC in the older population.

FIGURE 1: Overall survival of matched ILND and non-ILND cohorts with cN- penile cancer

Funding: N/A



Poster #107

A RETROSPECTIVE ANALYSIS OF URETHRAL SOUNDING WITH FOREIGN OBJECTS IN ADULTS: CASE REVIEW AND MANAGEMENT APPROACHES

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Presented By: Anthony Farias

Introduction: Urethral sounding, which involves inserting foreign objects into the urethra and bladder, is uncommon but poses serious medical risks. Such practices can result in major complications, including infections, stone formation, and trauma, which require meticulous and sometimes intricate treatment approaches. This review seeks to educate urologists about the symptoms and management strategies for both urethral sounding and genitourinary foreign bodies, emphasizing the importance of effective intervention.

Methods: A retrospective review of cases was conducted using PubMed, covering the period from 1968 onward, focusing on the terms "urethral foreign bodies" and "urethral sounding." The review involved patients aged 18 and older who had foreign bodies in the lower urinary tract as a result of sexual activity. Data on these patients was compiled and analyzed.

Results: Of the 85 individuals, 19% (16) were female, and 81% (69) were male. Common symptoms included dysuria in 38% (32), hematuria in 19% (16), voiding difficulty in 16% (14), lower abdominal pain in 16% (14), suprapubic pain in 9% (8), urinary retention in 8% (7), urethral discharge in 7% (6), urethral bleeding in 7% (6), penile pain in 7% (6), and penile inflammation in 7% (6); 11% (9) were asymptomatic. Foreign bodies were located in 58% (49) of bladders, 54% (46) of urethras, and 1% (1) in a ureter. Rare cases involved 6% (5) calcified, 5% (4) protruding, and 4% (3) embedded foreign bodies. Causes were 87% (74) autoeroticism, 16% (14) psychiatric, and 8% (7) intercourse. Imaging included ultrasound in 24% (20), X-ray in 69% (59), and CT in 22% (19). Management involved 18% (15) noninvasive, 56% (48) minimally invasive, and 49% (42) open surgeries. Follow-up showed no complications in 55% (47).

Conclusion: Due to the diverse and often urgent nature of foreign bodies in the urethra and bladder, management generally prioritizes noninvasive and minimally invasive techniques. Open surgery is regarded as a final option when detailed patient history and diagnostic imaging demonstrate its necessity for each case. Effective management requires careful assessment to determine the most appropriate intervention.

Funding: N/A

Poster #108

ROBOTIC RETROPERITONEAL LYMPH NODE DISSECTION – A SINGLE ACADEMIC INSTITUTION EXPERIENCE OF 16 PATIENTS

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Presented By: Hangcheng Fu, MD

Introduction: Retroperitoneal lymph node dissection (RPLND) is a critical procedure for the management of various malignancies, particularly testicular cancer. While open retroperitoneal lymph node dissection (O-RPLND) has been the established standard for decades, it is associated with significant perioperative complications. Recent studies suggest that robotic-assisted retroperitoneal lymph node dissection (RA-RPLND), although technically challenging, offers improved perioperative outcomes. This study aims to present our single-center experience comparing RA-RPLND and O-RPLND outcomes.

Methods: This retrospective study included 23 consecutive patients who underwent RPLND between November 2016 and August 2024. Patients were divided into two groups based on the surgical technique: O-RPLND and RA-RPLND. Demographic, pathological, and perioperative outcome data were collected and compared between the groups.

Results: Of the 23 patients, 7 underwent O-RPLND, and 16 underwent RA-RPLND. The RA-RPLND group included one female patient with primary renal cell carcinoma. The mean age was 32.5 years for RA-RPLND patients and 28 years for O-RPLND patients. In the RA-RPLND group, 10 patients had non-seminoma germ cell tumors (NSGCTs), 2 had Sertoli cell tumors, and 2 had paratesticular mesothelial tumors. In the O-RPLND group, 6 patients had NSGCTs, and 1 had seminoma. Chemotherapy prior to surgery was more common in the O-RPLND group. No significant differences were observed between groups in terms of smoking status, diabetes, ECOG performance status, ASA classification, or TNM stage. The mean operative times were 228 minutes for O-RPLND, 198 minutes for post-chemotherapy RA-RPLND, and 157 minutes for primary RA-RPLND. Estimated blood loss was significantly higher in the O-RPLND group (1657 mL vs. 472 mL vs. 160 mL, $P=0.016$). Length of hospital stay was longer for O-RPLND patients vs. post-chemo RA-RPLND vs. primary RA-RPLND (median stay: 8 vs. 2 vs. 3 days, $P=0.006$), and complications were more frequent in the O-RPLND group. There was no difference in the number of lymph nodes examined or 30-day readmission rates.

Conclusion: RA-RPLND can be safely performed despite its steep learning curve and is associated with reduced blood loss, shorter hospital stays, and fewer complications compared to O-RPLND. Further prospective studies are needed to directly compare these techniques.

Funding: N/A

	Open RPLND All (N=7)	Robotic RPLND	
		Post chemotherapy (N=9)	Primary (N=7)
Operative time (minutes)^a			$P = 0.057$
Mean (95% CI)	228 (206-250)	198 (147-249)	157 (98-217)
Median (Min-Max)	228 (195-271)	187 (134-348)	189 (81-243)
Estimate blood loss (ml) ^a			$P = 0.016$
Mean (95% CI)	1657 (-435-3749)	472 (-258-1202)	160 (27-294)
Median (Min-Max)	600 (300-6500)	150 (100-3000)	100 (25-400)
Length of Stay (days) ^a			$P = 0.006$
Mean (95% CI)	12.5 (2.5-22.5)	2.2 (1.2-3.1)	3.2 (1.9-4.6)
Median (Min-Max)	8 (5-33)	2 (1-5)	3 (1-5)
Lymph node number ^a			$P = 0.462$
Mean (95% CI)	23.1 (12.4-33.8)	19.3 (12.6-26.0)	20.8 (6.5-35.1)
Median (Min-Max)	26 (5-37)	18 (9-35)	17 (3-49)
Clavien-Dindo Grade III or above complication^b			$P = 0.019$
No	4	0	0
Yes	3	9	7
Readmission in 30 days^b			$P = 0.415$
No	6	9	7
Yes	1	0	0

Abbreviation: RPLND, retroperitoneal lymph node dissection; CI, confidence interval;

^a, calculated with one-way analysis of variance (ANOVA) test

^b, calculated with Chi-squared test

Poster #109

PRESENTATION, MANAGEMENT, AND OUTCOMES OF SCROTAL TRAUMA: A SINGLE CENTER EXPERIENCE FROM A LEVEL 1 TRAUMA CENTER

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Emory University School of Medicine

Presented By: Myles Marcellus Morgan

Introduction: The 2020 AUA Urotrauma Guidelines include recommendations for management of scrotal trauma, but due to limited available evidence on this topic, the evidence strength rating for these Guideline statements is moderate to low. Our goal was to describe our contemporary experience with management and short-term outcomes of scrotal trauma in an urban population presenting to a Level 1 trauma center.

Methods: We performed a retrospective chart review of all patients presenting as a trauma to the ED of Grady Memorial Hospital from January 1st, 2022, to March 6th, 2024. All urologic traumas were identified by reviewing physical exams, operative notes, and imaging studies at intake from an EMR-queried database of all traumas encountered during this period, following IRB approval. Delayed presentations of urologic trauma were identified by reviewing subsequent imaging studies and urology consult notes during inpatient admission. For each patient with an identified scrotal trauma, we collected demographics, nature and presentation of the trauma, comorbidities, as well as short-term surgical and follow-up outcomes.

Results: 72 patients with scrotal trauma were identified. 61 (84.7%) patients were Black/African American and had a mean age of 34.7 years. 63 (87.5%) were penetrating injuries, 32 (44.4%) involved other urologic organs, and 34 (47.2%) involved significant injuries to non-urologic organs. 45 (62.5%) of all scrotal traumas required exploration. Of these, 13 required orchiectomy (28.9%). 30 (41.7%) patients were lost to follow up. 11 (15.3 %) patients returned to the ED with a chief complaint related to their scrotal trauma, all of whom had undergone prior exploration. Full demographics and outcomes data is included in Table 1.

Conclusion: In our cohort, most patients presented with penetrating scrotal trauma. A large proportion of patients were lost to follow up, highlighting an important limitation with trauma outcome assessments, which requires further investigation.

Funding: N/A

Demographics n=72		Injury Complex	
Gender		Penetrating	63 (87.5%)
Male	71 (98.6%)	Multi-organ (non-GU)	34 (47.2%)
Transgender Female	1 (1.4%)	Penile Involvement	30 (41.7%)
Patient Age, mean	34.7	Bladder Involvement	2 (2.8%)
Patient BMI, mean	26.1		
Race		Management	
Black/AA	61 (84.7%)	Exploration *	45 (62.5%)
White	6 (8.3%)	Delayed Exploration	3 (6.7% of *)
Asian	1 (1.4%)	Orchiectomy	13 (28.9% of *)
Other	1 (1.4%)	Bilateral Trauma	1 (1.4%)
Unknown	2 (2.8%)		
Ethnicity		Additional related procedures	
Hispanic/Latino	1 (1.4%)	Scrotal re-exploration	1 (1.4%)
		IPP	1 (1.4%)
		Scrotal debridement	1 (1.4%)
Comorbidities		Follow-Up Visits	
HTN	11 (15.3%)	Follow-Up Visits, mean	1.1
DM	6 (8.3%)	No follow up scheduled	20 (27.8%)
CAD/PVD	1 (1.4%)	Missed follow-up appointment	10 (13.9%)
Other	8 (11.1%)		
		ED readmission	11 (15.3%)

Poster #110

MULTIDISCIPLINARY CARE FOR PRIMARY CUTANEOUS MELANOMA OF PENILE PREPUCE WITHOUT GLANS INVOLVEMENT

Justin Refugia¹, Arjun Choudhary², McKenzie Needham³, Maxwell Sandberg¹, Ronald Davis III¹, Alejandro Rodriguez¹, Edward Levine⁴

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³Wake Forest University School of Medicine, Winston-Salem, NC, ⁴Wake Forest Baptist Comprehensive Cancer Center, Winston-Salem, NC

Presented By: Justin Refugia, MD

Introduction: Primary cutaneous melanoma (CM) isolated to the penile prepuce is an extremely rare neoplasm that warrants an individualized approach to management.

Methods: A 63-year-old male with a seven-month history of a preputial lesion underwent elective circumcision with pathologic findings of a T4b malignant melanoma. Workup was notable for hypermetabolic lesions in the inguinal lymph node basin. The patient underwent bilateral sentinel lymph node mapping with partial penectomy. Pathologic staging was IIID (T4b N3a M0).

Results: Despite treatment with combination immunotherapy, the patient had disease progression, transitioned to hospice, and ultimately passed away 11 months after initial circumcision.

Conclusion: Herein, we present the 11th case report on CM isolated to the prepuce to provide insight to the multidisciplinary management of this rare condition.

Funding: N/A

Poster #111

BIOMANUFACTURING OF VASCULARIZED ORGAN CONSTRUCTS FOR SPACEFLIGHT TESTING

Tim Dobroski¹, Kelsey Willson¹, Jin Oh Jeong¹, John Jackson¹, Colin Bishop¹, Stefanie Countryman², Jana Stoudemire³, Sang Jin Lee¹, James Yoo¹, Anthony Atala¹

¹Wake Forest School of Medicine, Wake Forest Institute for Regenerative Medicine, Winston Salem, NC, ²University of Colorado- BioServe, Boulder, CO, ³Axiom Space, Houston, Texas

Presented By: John D. Jackson, PhD

Introduction: The United States Health Resources and Services estimates that 17 people die each day waiting for an organ transplant, and every 9 minutes, someone is added to the transplant waiting list. Tissue engineering and regenerative medicine offer innovative approaches to building tissues and organs. However, establishing adequate vascularization to engineered tissues and organs is an everlasting challenge that needs to be solved. We developed thick, human vascularized organ tissue that can maintain structural and metabolic functions similar to native liver cells over a 30-day period. We aim to further evaluate the vascularization of thick tissue in microgravity and to determine the utility of this platform technology for other tissue types.

Methods: Vascularized human liver tissue constructs measuring 5 cm in each dimension were fabricated using a digital light projection (DLP) printer. The models were gyroid in nature, mimicking human corporal tissue. Samples were printed with HepG2's, a human liver cell line, to model the liver. Parenchymal cells were included in the bioink at 10x10⁶ cells/mL. Samples were seeded with human umbilical vein endothelial cells (1.25x10⁶ cells/construct). After 5 days under flow, samples were removed from the flow and placed in bags. The bags containing the bioprinted tissue constructs were transported to the International Space Station National Labs (ISSNL).

Results: Samples were monitored for viability immediately after printing when removed from flow and 15 days post-launch. The constructs maintained over 85% viability prior to launch and greater than 75% while on station. Bioprinted constructs produced albumin, bilirubin, and urea levels comparable to humans. Staining with Ki67 confirmed the proliferative state of the cells. Histomorphological analysis showed the endothelial cell layers covering the vascular lumen surrounded the viable hepatocyte aggregates.

Conclusion: We successfully completed the AX-2 spaceflight study of 3D bioprinted vascularized liver tissue constructs in microgravity. Future studies will include a perfusion system to examine cellular function in microgravity during a long-term mission (30 days) onboard the International Space Station (ISS). The unique microgravity environment may enhance the manufacturing of vascularized tissues that could serve as a building block to engineer functional organs such as the kidney for transplantation.

Funding: This study was supported by NIH/NIBIB (1P41EB023833) and Medical Technology Enterprise Consortium (#W81XWH-15-9-0001).

Poster #112

MUSCLE FIBER FRAGMENTS FOR RESTORATION OF MUSCLE TISSUE FUNCTION

Ji Hyun Kim, In Kap Ko, Eun Sang Yoo, Sang Mi Park, Bukyu Lee, John Jackson, James Yoo, Anthony Atala

Wake Forest School of Medicine, Wake Forest Institute for Regenerative Medicine, Winston Salem, NC

Presented By: John D. Jackson, PhD

Introduction: Reconstruction of muscle volume and function loss due to traumatic injury, congenital deformity, or tumor ablation is clinically challenging. The current treatment standard is the grafting of autologous muscle flaps; however, significant donor site morbidity and graft tissue availability remain problematic. Muscle fiber therapy has been attempted to treat muscle injury by transplanting single fibers into the defect site. However, irregularly organized long fibers resulted in low survivability due to delay in vascular and neural integration, thus limiting the therapeutic efficacy. We developed a novel method that produces uniformly sized native muscle fiber fragments (MFFs) for muscle transplantation. In this study, we applied autologous MFFs to restore injured muscle anatomy and function.

Methods: We developed an MFF processing method that produces uniformly sized fragments with intact muscle cells on the fiber surface. We created several rodent muscle injury models, including 1) a muscle atrophy model using toxin treatment, 2) a volumetric muscle defect model by surgical ablation, and 3) urinary incontinence (UI) model by damaging the external sphincter of the urethra. The effectiveness of the MFF therapy was determined by the structural and functional recovery of muscle tissues in these models.

Results: The processed MFFs have a dimension of approximately 100 μm and contain living muscle cells on extracellular matrices (ECM). Histological and functional analyses confirmed that the transplanted MFFs into the injury sites were able to effectively integrate with host muscle tissue, vascular and neural systems, which resulted in significant improvement of muscle function and mass.

Conclusion: These results indicate that the MFF technology platform is a promising therapeutic option for restoring muscle function in several muscle defect models. The ease of preparation and short processing time make this technology readily usable as a point-of-care procedure in the operating room. Preliminary data indicates positive therapeutic effects, including reduced fat infiltration and an improved muscle-to-fat ratio in damaged rotator cuff muscles following autologous MFF injections. Our study results strongly suggest that as a point-of-care treatment, the MFF technology platform can potentially restore muscle anatomy and function, enhancing overall patient functionality and quality of life.

Departmental Funding

Poster #113

ROLE OF ADJUVANT TREATMENT IN PATHOLOGICALLY NODE-POSITIVE PENILE CANCER FOLLOWING INGUINAL LYMPH NODE DISSECTION

Arjun Pon Avudaiappan¹, Pushan Prabhakar¹, Ciara Lusnia^{1,2}, Manuel Ozambela Jr.^{1,2}, Ahmed Eldefrawy^{1,2}, Christopher Gomez^{1,2}, Murugesan Manoharan^{1,2}

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Presented By: Arjun Pon Avudaiappan, MD

Introduction: Penile cancer (PC) is a rare malignancy in the United States, with an incidence of 0.58 per 100,000 population. Approximately one-third may show an involvement of the inguinopelvic lymph nodes. An inguinal lymph node dissection (ILND) is the cornerstone of managing nodal disease; however, the benefits of additional adjuvant treatments are uncertain. Nodal surgery alone is not often curative. Hence, it is crucial to understand the survival outcomes among patients treated with various multimodal approaches. Our study used the National Cancer Database to compare the survival outcomes among pathological node-positive PC treated with various adjuvant treatments.

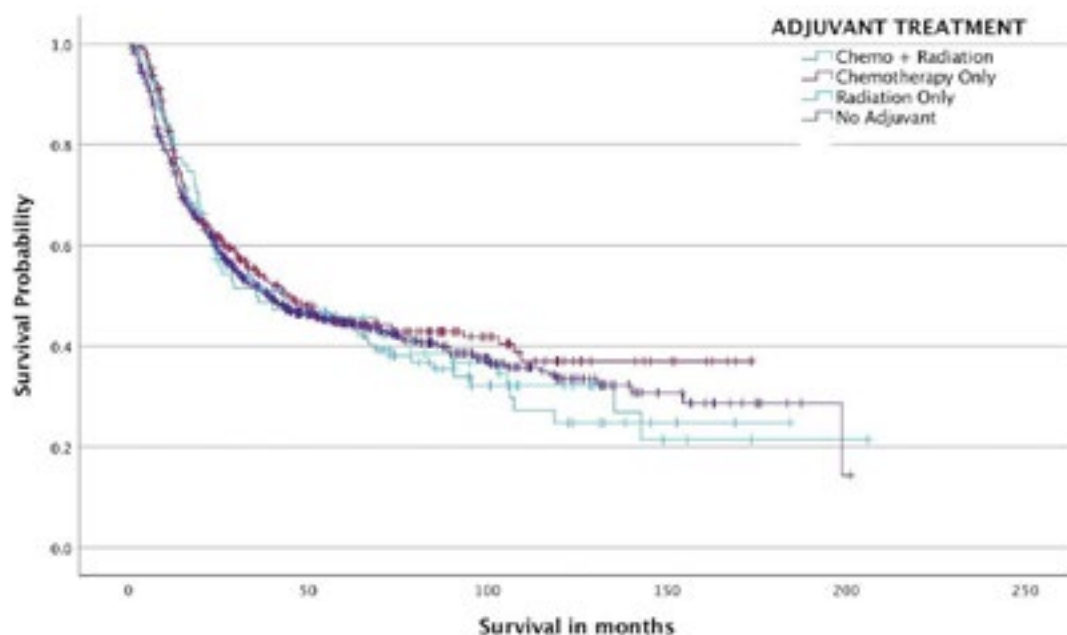
Methods: Our study included patients who had pathological node-positive non-metastatic penile cancer (anyT pN+ M0) with squamous cell histology and underwent an ILND between 2004 and 2020. These patients were categorized into four cohorts based on their adjuvant treatment: the chemotherapy with radiation cohort, which included patients who received both chemotherapy and radiotherapy; the chemotherapy cohort, which included patients who received only chemotherapy; the radiation cohort, which included patients who received only radiation, and a no adjuvant treatment cohort. We performed a Kaplan-Meier survival analysis to compare these adjuvant treatments' overall survival (OS) outcomes.

Results: Of the 19271 patients with PC, 1384 had node-positive PC. Among them, 1101 patients met our selection criteria. The chemotherapy with radiation cohort had 181(16.4%) patients, the chemotherapy cohort had 289(26.2%) patients, and the radiation cohort had 75(6.8%) patients, while 556(50.5%) had no adjuvant treatment. The median OS for the chemotherapy with radiation cohort was 42.8 months (95% CI, 21.9 – 63.8), the chemotherapy cohort had 44.6 months (95% CI, 31.5 – 57.8) months, the radiation cohort had 36 (95% CI, 10.2-78.8) months, and the no adjuvant cohort had 39.5 (95%CI, 27.2-51.8) (p=0.69).

Conclusion: In our nationwide study on pathological N+ penile cancer after inguinal lymph node dissection, we observed no statistically significant difference in OS between various adjuvant treatment modalities. However, chemotherapy alone and chemotherapy with radiation had higher months of survival. Therefore, the role of chemotherapy with radiation needs further exploration.

Figure 1. Overall survival comparing various adjuvant treatments in node-positive penile cancer

Funding: N/A



Poster #114

ASSOCIATION BETWEEN HIGH MAYO ADHESIVE PROBABILITY (MAP) SCORE AND DISSECTION TIME DURATION FOR ROBOTIC-ASSISTED PARTIAL NEPHRECTOMY (RAPN)

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Presented By: Laura Elizabeth Geldmaker, B.S.

Introduction: Our objective was to evaluate the association between duration of robotic-assisted partial nephrectomy (RAPN) dissection times and Mayo Adhesive Probability (MAP) score.

Methods: We performed a retrospective review of RAPNs performed from February 2008 through August 2024 by a single, fellowship trained urologist. MAP scores of the tumor kidney were classified as either low (MAP 0-3) or high (MAP 4-5). Operative time points included warm ischemia time (WIT), dissection time, and total operative time (OT). OT was defined as WIT plus dissection time. To compare groups for categorical variables the Fisher exact test was utilized and to compare groups for continuous variables the Wilcoxon rank sum test was utilized. Two-sided P values less than 0.05 were statistically significant. Results are shown as median (interquartile range) or n (percent).

Results: Our analysis included 748 RAPN procedures. 457 (61.1%) patients were male. Patients had a median age of 63 years (IQR 22-88 years), a median BMI of 29.6 kg/m² (IQR 16.5-60.6 kg/m²), a median RENAL score of 5 (IQR 1-8), and a median preoperative eGFR of 69 mL/min/1.73m² (IQR 12-98 mL/min/1.73m²). MAP score was classified as high (N=262) or low (N=486). Patients with a high MAP score had a higher preoperative Cr (1.1 vs. 0.9 mg/dL, P<0.001) and a higher preoperative hemoglobin (14.3 vs. 13.8 g/dL, P<0.001). The median (range) surgical times for high MAP vs. low MAP scores were 203.5 minutes (54-406) vs. 189 minutes (106-424) for OT (P<0.001), 183.5 minutes (40-387) vs. 168 minutes (93-407) for dissection time (P<0.001), and 19 minutes (0-35) vs. 19 minutes (0-45) for WIT (P=0.178).

Conclusion: High MAP score was associated with longer total operative time and longer dissection time, but there was no evidence of longer warm ischemia time.

Funding: NA

Poster #115

CHRONIC BALANITIS: RISK FACTORS AND OUTCOMES FOLLOWING CIRCUMCISION

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Presented By: Rohan Arora

Introduction: Circumcision may be offered to men with recurrent, chronic balanitis who have failed conservative therapies. We aimed to assess demographics, risk factors, and surgical outcomes in men with balanitis who underwent circumcision.

Methods: We performed a retrospective review of all men undergoing circumcision at a single-institution tertiary referral center for refractory balanitis management over the last 10 years (June, 2013 - June, 2023). Demographic and outcomes data were studied. Fisher's exact test was used to assess significance.

Results: Sixty-one patients underwent circumcision for refractory balanitis. Patients were predominantly publicly insured (60.7%), African American (42.6%) sexually active (59.0%), and non-current tobacco users (82.0%). Almost half (45.9%) of patients had diabetes mellitus, of which most (64.3%) had HbA1c >7.0 within 3 months of the surgery date. The most common etiology of balanitis was candidal or lichen balanitis. Few patients had thyroid disease (8.2%), autoimmune conditions (3.3%), or chronic systemic steroid use (1.6%). Most (70.4%) failed more than 1 previous treatment modality (i.e. topical/PO steroids/antimicrobials, laser/phototherapy) prior to surgery. Prior urologic surgery status was correlated with failure of conservative measures. The 90-day complication rate was 21.3%, mostly commonly wound dehiscence (11.5%) which was strongly associated with diabetes. One patient required reoperation (7.7%) for lysis of penile adhesion. Diabetes was significantly associated with any post-operative complications.

Conclusion: Patients with diabetes, obesity or prior urologic surgery are more likely to experience recurrent balanitis refractory to conservative treatment. Diabetes was the only risk factor associated with post-operative complications. Understanding patient-specific risk factors may better help counsel patients regarding treatment options and possible complications.

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Table 1: Demographic Risk Factors and Post-operative Complications Following Circumcision for Refractory Balanitis

Risk Factor (n=61)	Post Operative Complications (%)				p-value
	All	Infection	Dehiscence	Other	
Coverage					0.55
Public (37)	21.6	5.4	13.5	8.1	
Private (23)	21.7	8.7	8.7	4.3	
Uninsured/Self-pay (1)	0.0	0.0	0.0	0.0	
Race/Ethnicity					0.62
African American (26)	11.5	7.7	7.7	0.0	
Caucasian (10)	36.8	10.0	21.1	10.0	
Hispanic (11)	9.1	0.0	0.0	9.1	
Asian (3)	0.0	0.0	0.0	0.0	
Other/Not Available (2)	100.0	0.0	50.0	50.0	
Tobacco User					0.57
Non-user (50)	22.0	6.0	10.0	8.0	
User (11)	18.2	9.1	18.2	0.0	
Diabetes					0.45
Non-diabetic (33)	12.1	3.0	6.1	3.0	
Diabetic (28)	32.1	10.7	17.9	10.7	
Thyroid Disease					0.29
No thyroid disease (56)	23.2	7.1	12.5	7.1	
Thyroid Disease (5)	0.0	0.0	0.0	0.0	
Sexual Activity					0.31
Active (36)	22.2	5.6	8.3	8.3	
Inactive (16)	25.0	12.5	18.8	6.3	
Unknown (9)	11.1	0.0	11.1	0.0	
Autoimmune Condition					0.62
None (59)	22.0	6.8	11.9	6.8	
Present (2)	0.0	0.0	0.0	0.0	
Chronic Steroid Use					0.79
None (60)	21.7	25.0	11.7	6.7	
Chronic Use (1)	0.0	0.0	0.0	0.0	
Prior Urologic Surgery					0.44
None (48)	22.9	6.3	12.5	8.3	
Prior (13)	15.4	7.7	7.7	0.0	
Failed Treatment Modalities					0.21
1 (18)	27.8	5.6	5.6	16.7	
2 (6)	25.0	5.6	5.6	5.6	
3 (34)	47.0	5.8	14.7	0.0	
4 (1)	0.0	0.0	0.0	0.0	

Poster #116

UTILIZING ARTIFICIAL INTELLIGENCE IMAGE ANALYSIS TO QUANTIFY INFLAMMATORY CELLS IN BLADDER BIOPSIES FROM PATIENTS WITH INTERSTITIAL CYSTITIS/BLADDER PAIN SYNDROME

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Presented By: Madeline Snipes, MD

Introduction: The pathophysiology that underlies interstitial cystitis/bladder pain syndrome (IC/BPS) is incompletely understood; however, several publications have, using patient bladder biopsy specimens, identified inflammatory cell infiltration as a potential etiologic factor. Specifically, higher numbers of inflammatory cells have been found in bladder tissue samples from Hunner lesion positive (HL+), compared to HL-, patients. The objective of this study was to generate an artificial intelligence (AI) image analysis model for automated quantification of inflammatory cells, specifically lymphocytes, plasma cells, and neutrophils, in distinct tissue layers of bladder biopsy specimens.

Methods: Using biopsy specimens (N=43) obtained from 4 groups of IC/BPS patients (categories: low BC [≤ 500 cc], non-low BC [> 500 cc]; HL+; HL-) and control patients at the time of cystoscopy, tissue slides were generated and stained with hematoxylin and eosin. High-resolution slide scans were performed and uploaded into Aiforia (a deep learning platform). Next, unique annotations (2,341) were made to develop an AI model trained to identify tissue layers (urothelium, stroma, muscularis) and inflammatory cell types (plasma cells, lymphocytes, neutrophils). The model was published, and statistical analysis was conducted by fitting a generalized linear mixed effects model with a Poisson distribution.

Results: The AI model identified tissue layers with total area error 0.55%, precision 93.91%, sensitivity 96.45%, false positive rate 0.12%, false negative rate 0.07%, and F1 score 95.17%. In the urothelium, plasma cell counts were 2.8 times higher in non-low BC/HL+ ($p=0.027$) and 3.16 times higher in low BC/HL+ ($p=0.001$) compared to controls. Lymphocyte counts in the urothelium were 4.28 times more prevalent in non-low BC/HL+ ($p=0.001$) and 3.61 times higher in low BC/HL+ ($p<0.001$). In the stroma, lymphocyte counts were 4.5 times higher in non-low BC/HL+ ($p=0.013$) and 2.8 times higher in low BC/HL+ ($p=0.024$). Neutrophils were higher in stroma for all sample groups ($p<0.001$). There was no significant difference in cell counts in muscle layers for any IC/BPS subgroup, compared to control.

Conclusion: Our AI model successfully identifies tissue layers and quantifies cell counts within each layer. HL status, irrespective of BC, was found to be associated with significantly higher inflammatory cell counts in both the urothelial and stromal layers.

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Table 1. Measures of fold change of inflammatory cells (plasma cells, lymphocytes, neutrophils) within distinct tissue layers (urothelium, stroma, muscularis) of IC/BPS patient biopsy specimens compared to control biopsy samples. ($p<0.05$ considered statistically significant)

Urothelium						
Group	Plasma Cells		Lymphocytes		Neutrophils	
	fold change	P-value	fold change	P-value	fold change	P-value
non-low BC/HL-	2.05	0.10	1.67	0.20	n/a	n/a
non-low BC/HL+	2.80	0.027	4.28	0.001	n/a	n/a
low BC/HL-	1.30	0.50	1.68	0.20	n/a	n/a
low BC/HL+	3.16	0.001	3.61	<0.001	n/a	n/a
Stroma						
Group	Plasma Cells		Lymphocytes		Neutrophils	
	fold change	P-value	fold change	P-value	fold change	P-value
non-low BC/HL-	0.68	0.40	0.70	0.50	32.4	<0.001
non-low BC/HL+	2.32	0.10	4.50	0.013	36.8	<0.001
low BC/HL-	1.09	0.80	1.57	0.40	12.0	<0.001
low BC/HL+	1.84	0.11	2.80	0.024	40.7	<0.001
Muscularis						
Group	Plasma Cells		Lymphocytes		Neutrophils	
	fold change	P-value	fold change	P-value	fold change	P-value
non-low BC/HL-	2.56	0.20	1.45	0.40	4.39	0.30
non-low BC/HL+	1.12	0.90	2.26	0.066	1.91	0.60
low BC/HL-	1.41	0.70	1.01	>0.90	0.67	0.80
low BC/HL+	1.86	0.30	1.20	0.90	4.85	0.20

Poster #117

ACCURACY OF A CHATGPT IN DIAGNOSING UROLOGIC CONDITIONS FROM CROSS-SECTIONAL IMAGING

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Presented By: Matthew Cole

Introduction: To evaluate ChatGPT's effectiveness in medical imaging interpretation within urology, addressing the critical need for safe AI application in healthcare by identifying its strengths and limitations as a diagnostic and educational resource.

Methods/ Materials: Using publicly available cases from Radiopaedia.com, we entered 1-3 CT or MRI images into ChatGPT. A standard prompt instructed the model to provide a differential diagnosis ranked by probability. This task was repeated a second time with organ guidance (OG), which provided the organ of diagnostic interest to the model (e.g., kidney). Primary outcomes included whether the model's top or differential diagnosis correctly identified the underlying pathology.

Results: ChatGPT correctly identified the pathologic condition as its top diagnosis in 14% of CT (7/50) and 28% (14/50) of MRI cases ($p=0.08$). OG increased the model's ability to recognize the top diagnosis by 18% ($p=0.03$) when interpreting CT images, a benefit not shared when interpreting MRI images ($p=0.4$). At baseline the differential diagnosis contained the final diagnosis for 30% and 56% of CT and MRI cases ($p=0.03$). With the inclusion of OG, the model's differential diagnosis was able to correctly identify the underlying condition in 62% of both CT and MRI cases (CT: $p=0.001$, MRI: $p=0.31$).

Conclusion: ChatGPT's effectiveness in medical imaging diagnostics is initially limited, yet it substantially benefits from the addition of user guidance. The study underscores AI's current shortcomings but also its considerable capacity to improve clinical operations when enriched with more data and expert direction.

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