

CONCLUSIONS: Kidney transplantation significantly improved erectile function in ESRD patients across all aspects of sexual function. Younger age and absence of diabetes mellitus were associated with better outcomes. These findings highlight the importance of kidney transplantation as an early therapeutic option for ESRD patients, not only for renal function but also for sexual health improvement.

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IP10-19

EXPLORING THE PREVALENCE OF POLYCYTHEMIA AMONG MEN IN TESTOSTERONE THERAPY

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INTRODUCTION AND OBJECTIVE: Elevated hematocrit (HCT) is a frequent side effect in men undergoing testosterone therapy (TTH), increasing the risk of secondary polycythemia (SP). This study aims to describe the prevalence and predictors of elevated HCT in this population.

METHODS: The study population included men with (i) early morning total testosterone (TT) using LCMS, (ii) free T (FT) measured using equilibrium dialysis, and (iii) who were started on TTH. We excluded men who had a history of previous TTH. HCT was evaluated serially after TTH commencement. Low T was defined as TT ≤ 300 ng/dL. SP was defined as HCT ≥ 50%. To assess predictors of SP, we ran separate multivariable Cox regression models with the outcome of SP, adjusted for baseline HCT level. Predictors evaluated were initial TTH type, age, BMI, comorbidities, and smoking history. Patients were censored at the time of their first TTH route change.

RESULTS: The study was conducted on 1,106 men, with 32% receiving initial intramuscular (IMT), 36% receiving oral (OT), and 32% receiving topical testosterone (topT). Median age 59 (IQR 47,68) years, median BMI 29 (IQR 26,33). CAD was observed in 4.7% of the entire group, with a similar rate across all treatment routes. DM, HLD, and HTN rates were comparable across routes, affecting about 16%, 43%, and 43% of patients, respectively. Pulmonary diseases were higher in the OT group (12%) compared to IMT (9.9%) and topT (7.0%). Most participants never smoked (61%), followed by former (32%) and current smokers (6.7%), consistent across routes. The median baseline HCT value was 42 (IQR 39,44), slightly higher in the OT group 43 (IQR 40, 44) compared to IMT (41 (IQR 39, 44)) and topT (41 (IQR 37, 43)). Among our cohort, 135 patients developed SP. The median follow-up among patients who did not develop SP was 2 (IQR 1, 5) years after starting TTH. With the OT route as the reference group for initial TTH administration, there is a significantly higher risk of SP for patients on topT (HR 2.1, 95% CI 1.3–3.5) or IMT (HR 4.5, 95% CI 2.8–7.1). Table 1

CONCLUSIONS: Men using intramuscular or topical testosterone face a higher risk of developing SP than those on oral therapy, with intramuscular posing the highest risk. Although SP can be managed, if left untreated, it may lead to serious complications. This information helps guide treatment choices, balancing the benefits of each route with the need for careful monitoring, especially for those at risk of blood-related issues.

Table 1. Association between characteristics and developing polycythemia, adjusted for baseline hematocrit level.

	N	HR	95% CI	p-value
Age at initial TTH	1,106	1.01	1.00, 1.02	0.2
Body Mass Index	652	1.01	0.97, 1.06	0.6
Obstructive Sleep Apnea	1,106	1.42	0.99, 2.04	0.062
Lung Condition	1,106	1.28	0.75, 2.19	0.4
Smoking Status	1,024			0.9
Current		—	—	
Former		0.86	0.43, 1.73	
Never		0.85	0.44, 1.64	
Initial type of TTH	1,106			<0.001
Oral		—	—	
Topical		2.13	1.29, 3.53	
Intramuscular		4.45	2.78, 7.11	

TTH: Testosterone replacement therapy, HR: Hazard Ratio, CI: Confidence Interval

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IP10-20

DOES THE TYPE OF SHOCKWAVE GENERATOR MATTER? A SYSTEMATIC REVIEW AND BAYESIAN NETWORK META-ANALYSIS ASSESSING RANDOMIZED SHAM CONTROLLED TRIALS USING SHOCKWAVE LITHOTRIPSY FOR MODERATE ERECTILE DYSFUNCTION

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INTRODUCTION AND OBJECTIVE: Low-intensity shockwave therapy (LiSWT) has been demonstrated to improve erectile function in some randomized controlled trials (RCTs). However, significant heterogeneity exists when comparing RCTs for LiSWT as shockwaves can be generated via four methods electromagnetic, electrohydraulic, piezoelectric generators, or radial waves. No study has directly assessed whether the type of LiSWT generator impacts clinical outcomes for erectile dysfunction.

METHODS: A systematic review of MEDLINE, EMBASE, Cochrane Library, and ClinicalTrials.gov was performed for randomized sham-controlled trials. Studies were included if they evaluated changes in international index of erectile function (IIEF) scores in men with moderate erectile dysfunction (baseline IIEF-5: 8-11 or baseline IIEF-EF: 11-16) at either 1 month or at 3-6 months follow-up. Studies post-prostatectomy were excluded. Randomized sham-controlled trial data for piezoelectric, electromagnetic, electrohydraulic, and radial LiSWT devices were pooled via network meta-analysis with random effect modeling.

RESULTS: A total of 17 RCTs were identified with 1,076 men included. 7 studies report changes in IIEF scores only at 1 month, 3 studies at both 1 month and 3-6 months, and 7 studies only at 3-6 months. After 1 month, the mean difference from baseline between treatment and sham group was greatest in men receiving therapy from studies using electrohydraulic generators (mean difference between treatment and sham therapy from baseline: 5.19, 95% Confidence Interval 2.08-8.29), while electromagnetic generators showed modest improvement (MD: 3.72, 95% CI 3.36-4.07), however piezoelectric and radial wave generators did not significantly improve IIEF scores (Figure 1). After 3-6 month, the greatest impact was seen in the trials using electromagnetic generators (MD: 5.15, 95% CI 3.90-6.40) while piezoelectric generators did not see an improvement between therapy and sham from baseline (MD: 2.08, 95% CI -1.28-5.43).

CONCLUSIONS: Piezoelectric and radial wave generators for LiSWT do not significantly improve IIEF scores at 1 or 3-6 months for men with moderate erectile function while electromagnetic generators appear to have significant improvement in IIEF scores in this same population at both 1 and 3-6 months. While electrohydraulic devices