

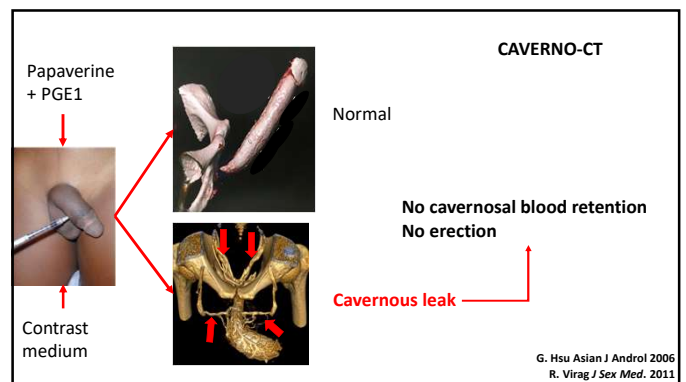
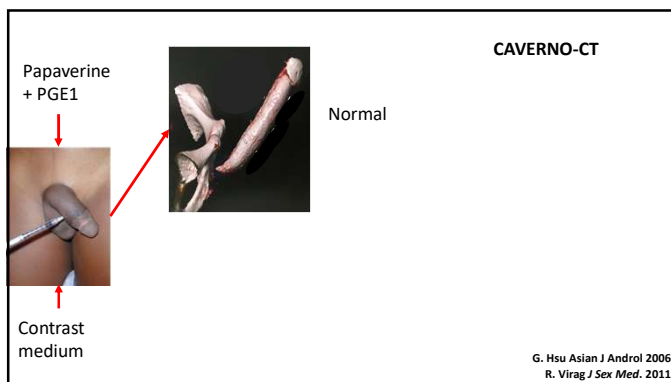
## DIAGNOSIS AND TREATMENT OF **CAVERNOUS LEAK** (AND OTHER PATHOLOGIES) - A NEW HORIZON

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### Symptomes of erectile dysfunction in cavernous leak

	YES	NO
No or weak morning erections		
Resistant to medical treatments (do not stop leakage)		
Erections lost when changing position		
Finger pressure around penis helps erections		
Erections better in Valsalva maneuver		
Since adolescence / or after normal erection life		
Ejaculation with no erection		
More than 6 months, constant		
Worsens		

### Penis venous leakage, 2<sup>nd</sup> most frequent vascular disease ?

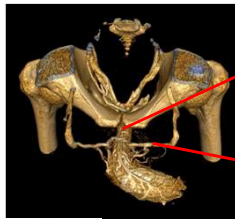
- Under 25: 1-2%
- Half PDE5-I resistance due to cavernous leak (30-40%)
- USA: 4.4 millions
- Exclusion from life
- 1/4 suicidal ideas



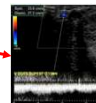
McMahon CN BMJ 2006;332:589-92  
ZhuYC, Urology 2010,  
Wespes Eur Urol 2005

### Diagnosis: penile duplex sonography with pharmacologic stimulation

#### Vein leakage



Deep Dorsal Vein



Superficial Vein

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### Surgery

- Inefficient (North American and European Urologic Associations): implant

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### Surgery

- Inefficient (North American and European Urologic Associations): implant
- Pre-operative work-up: duplex sonography, caverno-CT, penile EMG (diabetes)
- Open microsurgery, embolisation
- Staged procedures
- Post-operative haemodynamic control



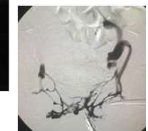
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### Open surgery



### Embolisation



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### 3 month duplex sonography results in 45 consecutive patients

	BEFORE SURGERY	AFTER SURGERY	DELTA	Student t Test
EHS	2.02 +/- 0.65	3.15 +/- 0.76	1.12 +/- 0.71	<0.0001
DDVV (cm/sec.)	13.53 +/- 12.66	0.97 +/- 3.63	-	<0.0001
EDV (cm/sec.)	13.00 +/- 9.93	10.78 +/- 7.05	-	NS
Venous Score	4.68 +/- 1.73	2.0 +/- 1.6	-	<0.0001

### 14 month clinical results

	BEFORE SURGERY	AFTER SURGERY	Student t Test
EHS	2.02 +/- 0.65	3.40 +/- 0.59	P<0.0001
Possible penetration (EHS)	9.9 %	81.8 %	

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### Conclusion

- Cavernous leakage second most frequent vascular disease?
- Open surgery combined to embolisation: results to be expanded
- Surgery changes life – saves lives
- Vascular team-work with urologists

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**Franck, thank you for pointing to this New horizon**



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