CLINICAL AND HEMODYNAMIC RESULTS

OF PENILE SURGERY

FOR CAVERNO-VENOUS LEAKAGE IN 45 PATIENTS

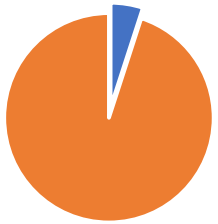
Eric ALLAIRE [a,b]
Hélène SUSSMAN [b], Ahmed S. ZUGAIL[b], Pascal HAUET [b]
Ronald VIRAG[b]

a: Clinique Geoffroy Saint Hilaire, Vascular Surgery Unit, 59 rue Geoffroy Saint-Hilaire 75005 Paris, France

b: CETI, 8 rue de Duras, 75008 Paris, France

www.medisexe.com
www.erectionvascular.com

ERECTILE DYSFUNCTION EPIDEMIOLOGY AND IMPACT



18-19 years: 5%

Addictions, suicide and male over-mortality?

25-34 years: 10%

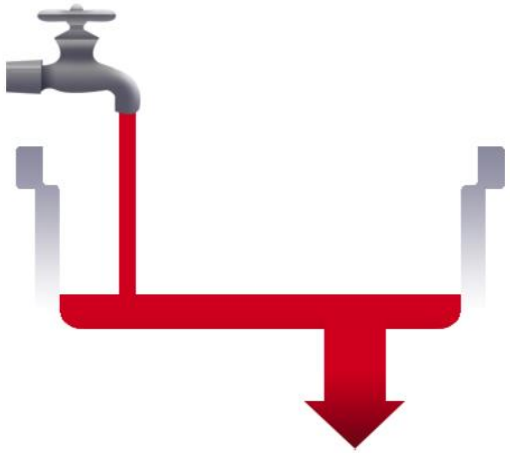
Fatherhood, addictions?

45 years: 25%

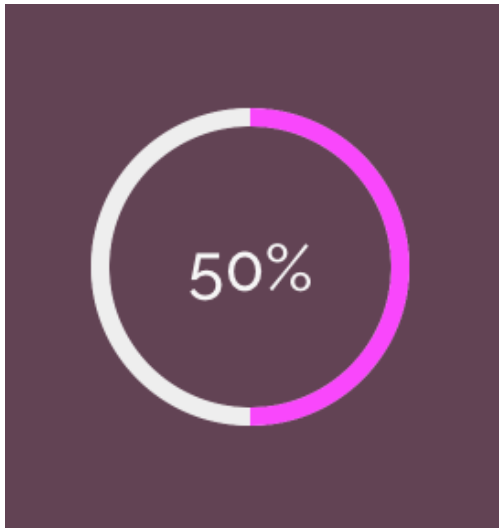
Depression, addictions, early death

Lue TF. N Engl J Med. 2000

ERECTILE DYSFUNCTION DUE TO CAVERNO-VENOUS LEAKAGE



venous leakage



- SEVERE ERECTILE DYSFUNCTIONS

- ERECTILE DYSFUNCTIONS RESISTANT TO IPDE-5 (30%)

Hsu GL *J Androl*. 2012
Gong B *Int Urol Nephrol*. 2017
Wespes E *Eur Urol*. 2005
Rajfer J *J Urol*. 1988

OPEN SURGERY AND EMBOLIZATION FOR CAVERNO-VENOUS LEAKAGE

European Association of Urology

American Urological Association Education and Research, Inc.

Don’t do it!
Ineffective

→ Penile implant

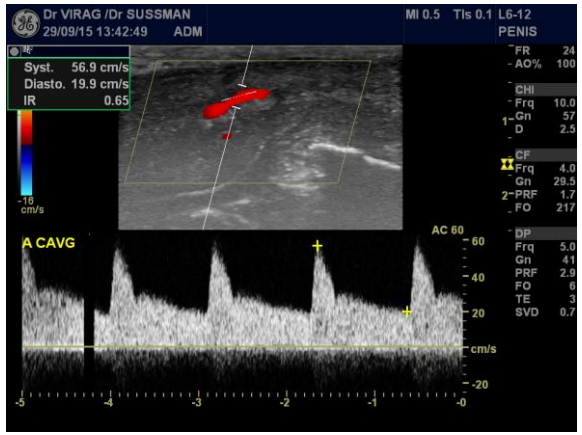
OPEN SURGERY AND EMBOLIZATION FOR CAVERNO-VENOUS LEAKAGE

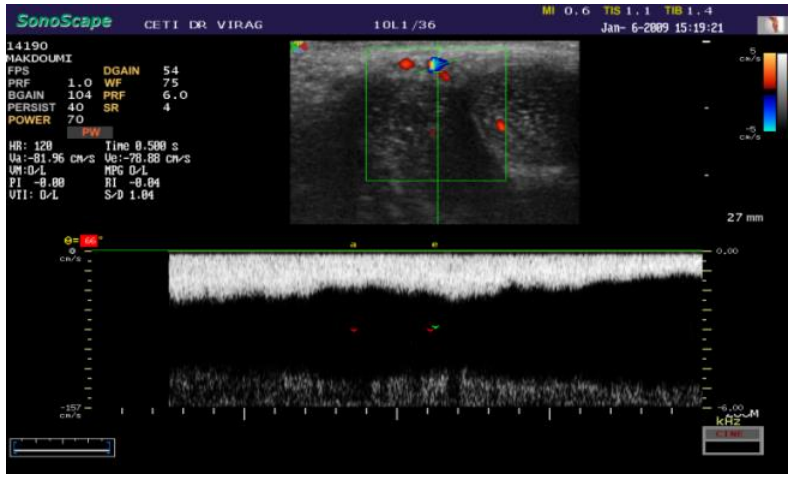
- 3 month recurrence
- Pre-operative diagnosis
- Pre-operative venous cartography
- Operative technique
- Post-operative erection assessment and follow-up

Virag *Chirurgie*. 1988
Wespes E *J Urol*. 1985
Hsu *J Androl*. 2010
Rebonato A *J Vasc Interv Radiol*. 2014

PATIENT SELECTION AND INCLUSION CRITERIA

DUPLEX SONOGRAPHY WITH PHARMACOLOGICAL TEST





Sussman H. J Mal Vasc 2020

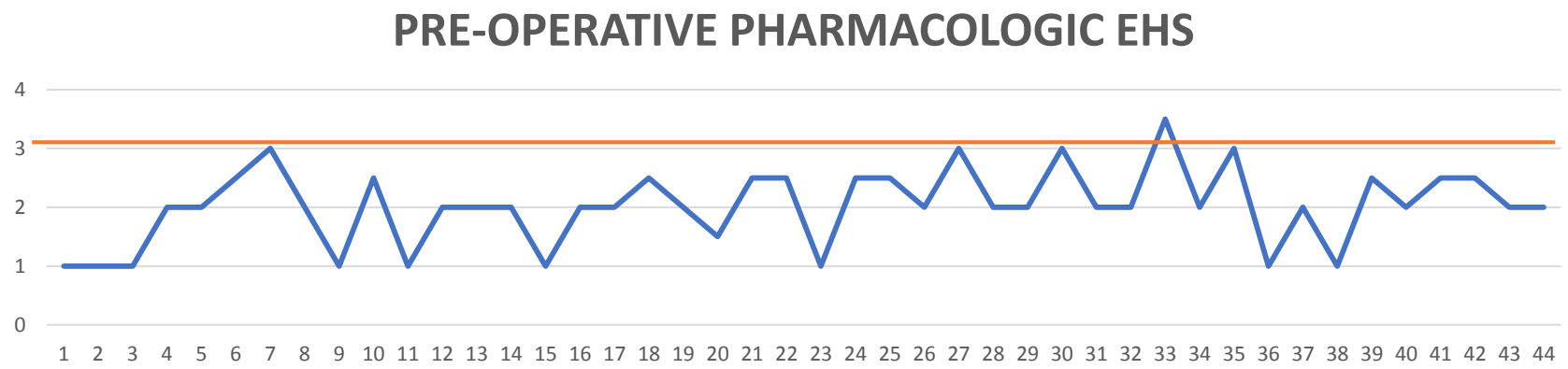
PATIENT SELECTION AND INCLUSION CRITERIA

- ED > 1 year
- Resistant to oral medical treatment
- Pharmacologic EHS < 3
- No significant arterial or neurological disease
- No urological penile disease
- No previous penile surgery
- Anticipated good compliance to follow-up
- Penile prosthesis refused
- Signed informed consent

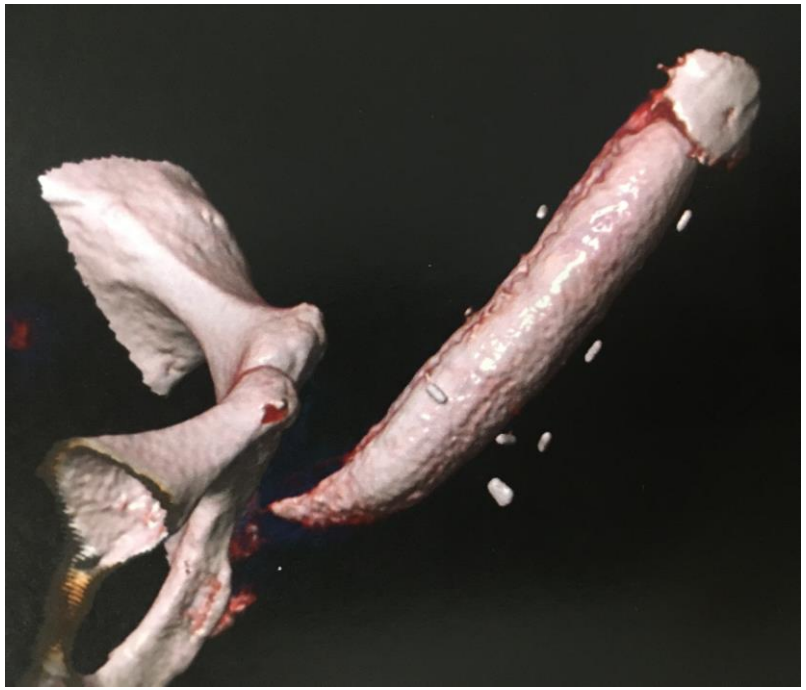
45 CONSECUTIVE PATIENT CHARACTERISTICS

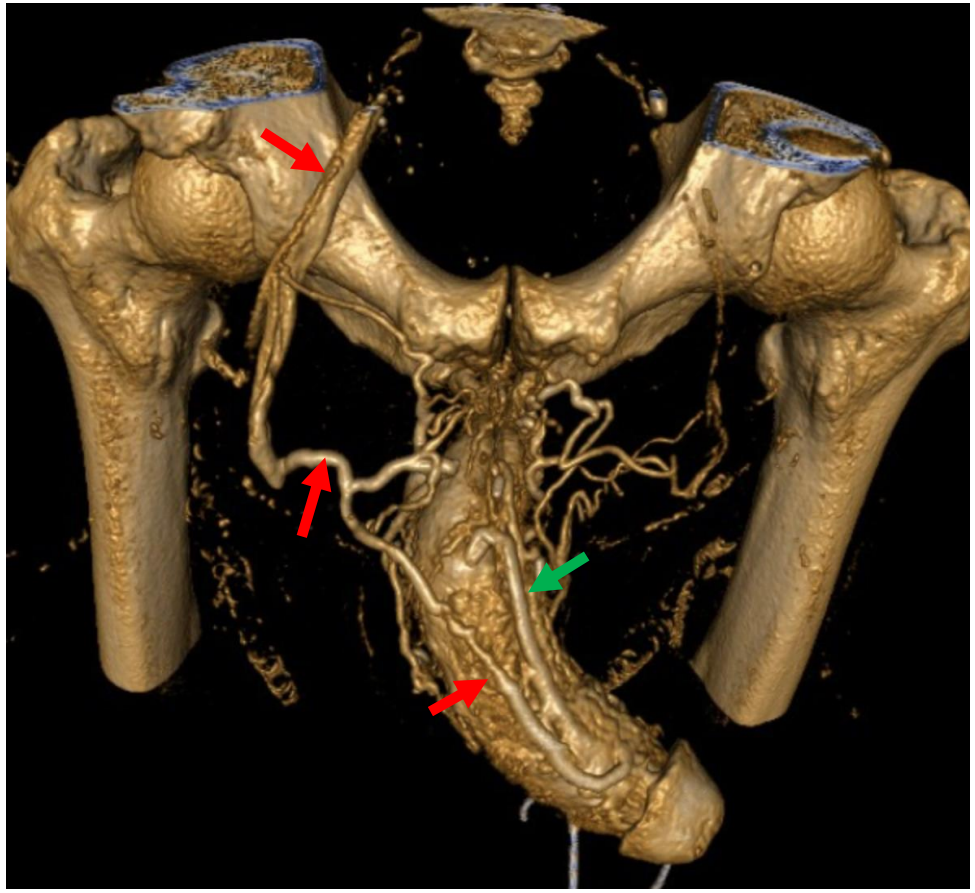
ED TYPE	PRIMARY 48.9 %
No intercouse despite drug	90.1 %
Arterial A1	6.7 %
Neurologic N1	8.9 %
C-CT leakage type	D: 86.7 %

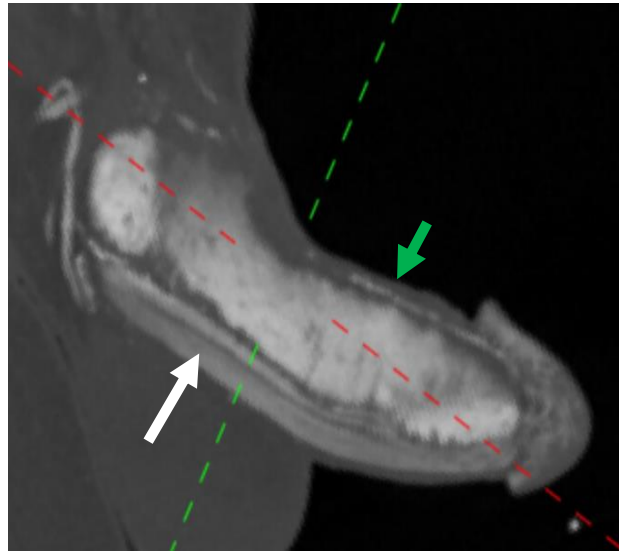
AGE (Range)	43.9 +/- 12.0 (20-67)
DIABETES	17.4 %
TOBACCO	11.4 %
HYPERTENSION	8.9 %
HYPERCHOLESTEROLEMIA	8.9 %

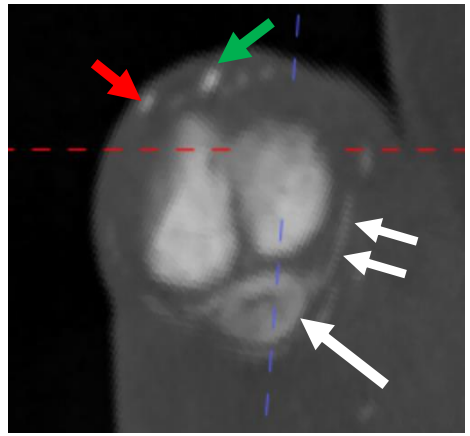


PRE-OPERATIVE CAVERNO-SCANNER



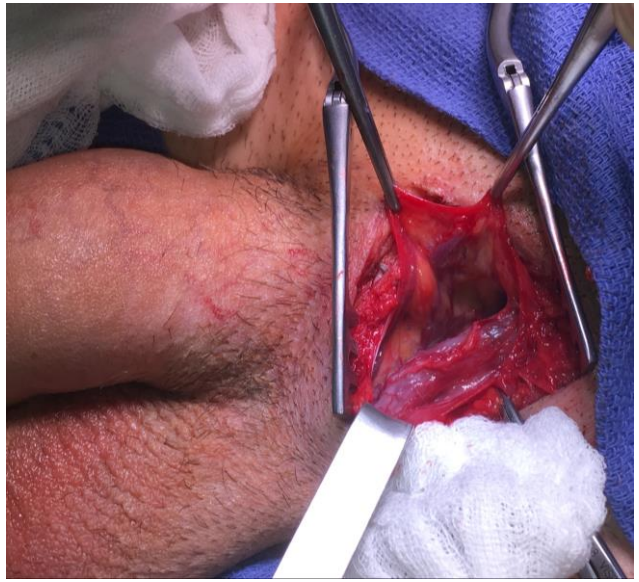


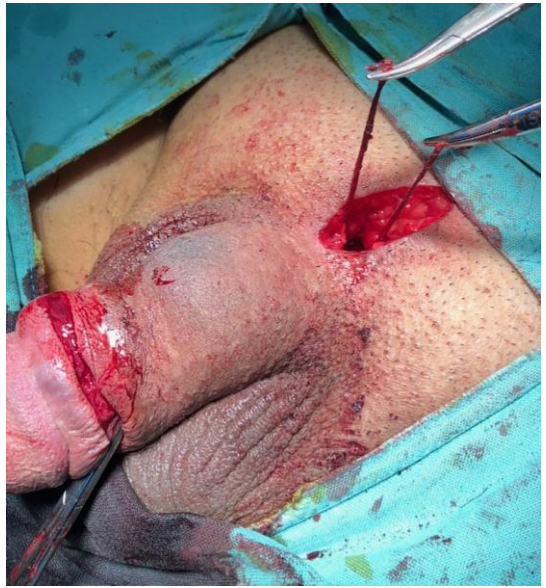


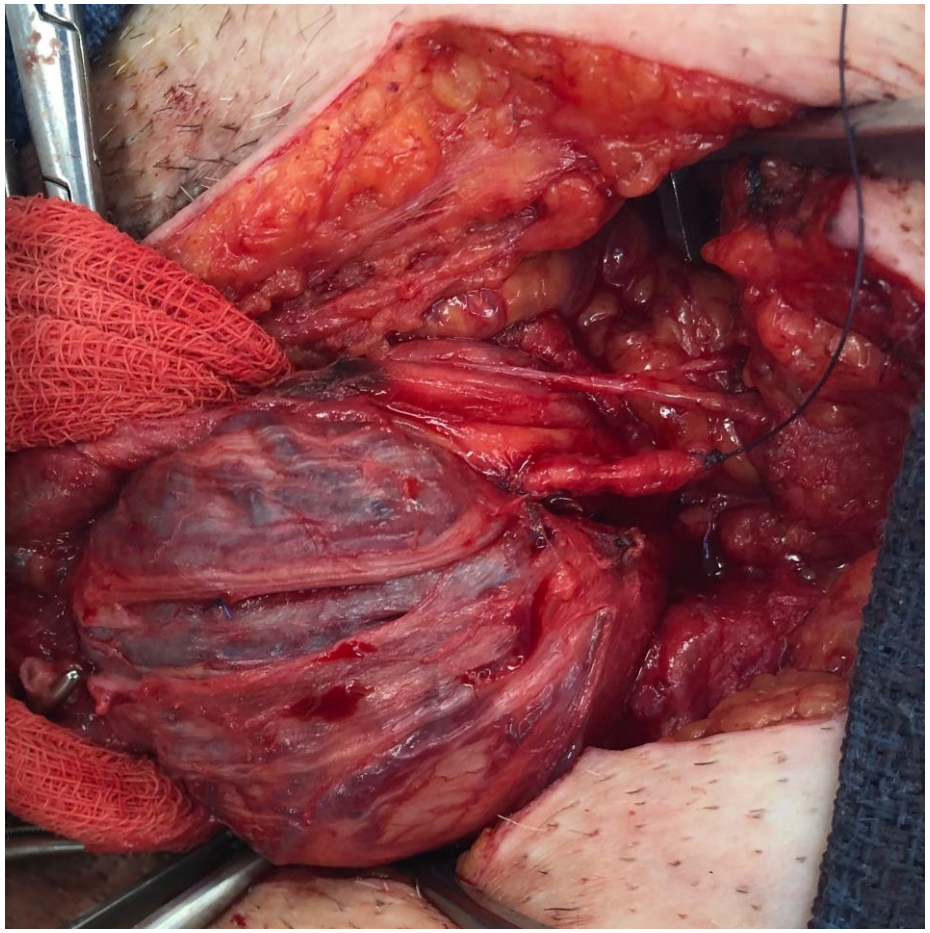


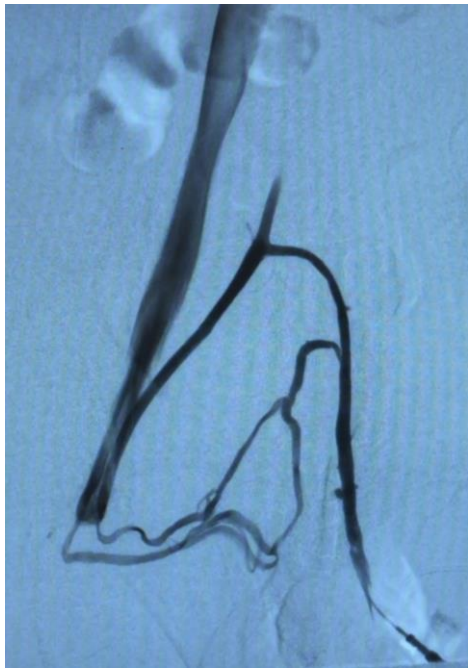
Virag R. *Lancet*. 1985
Virag R *J Sex Med*. 2011

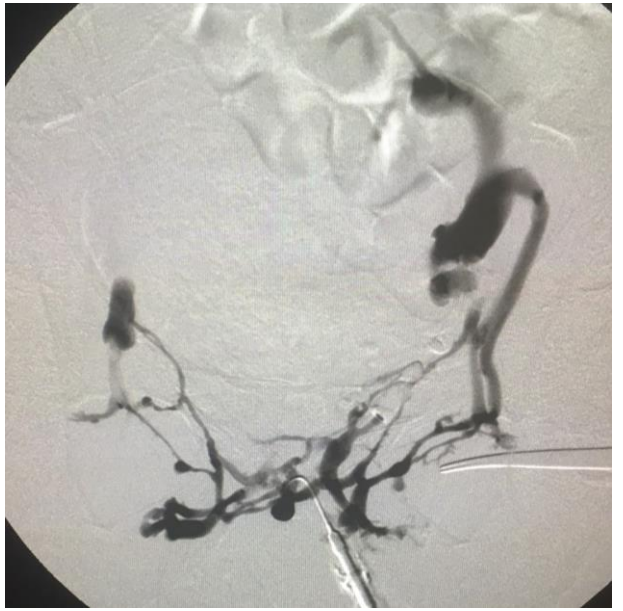
SURGICAL TECHNIQUE
OPEN + ENDO





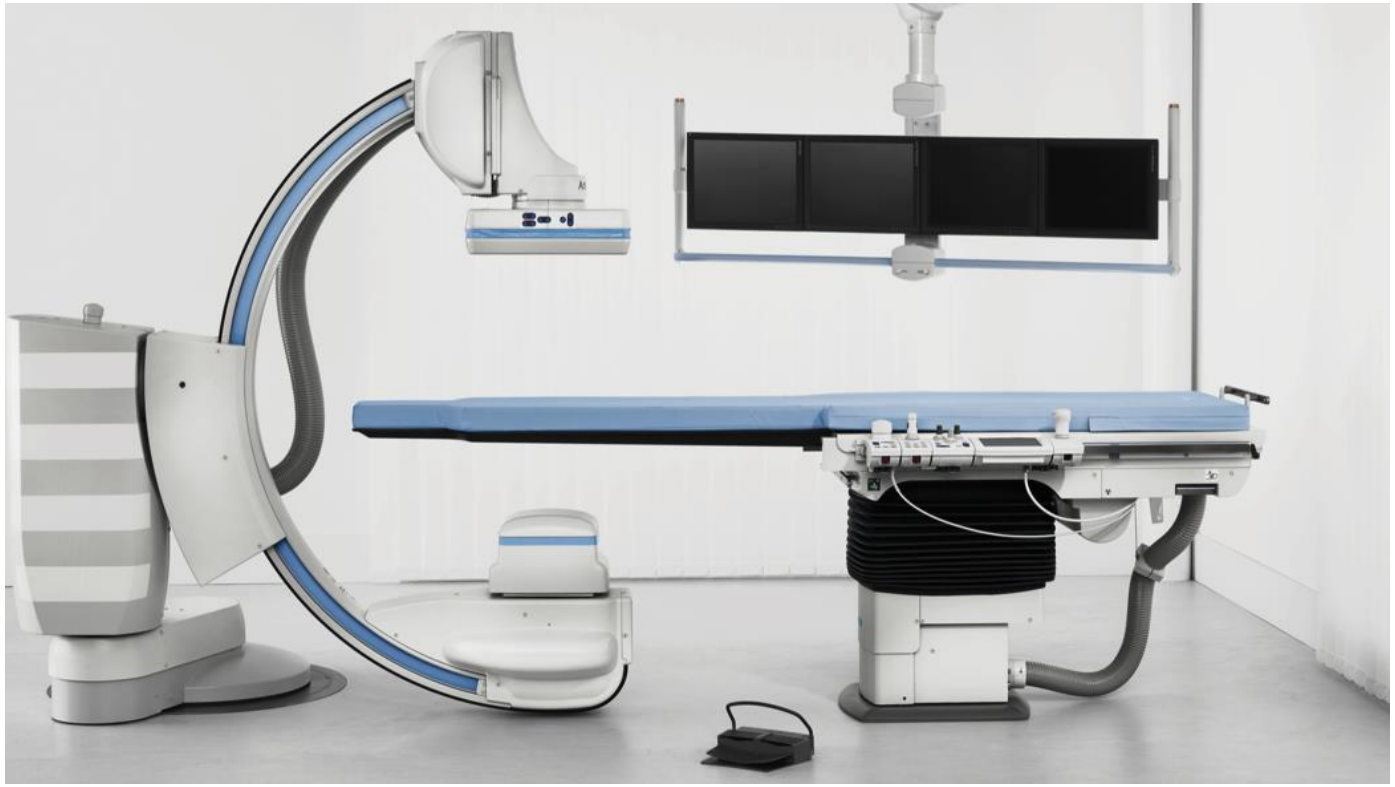


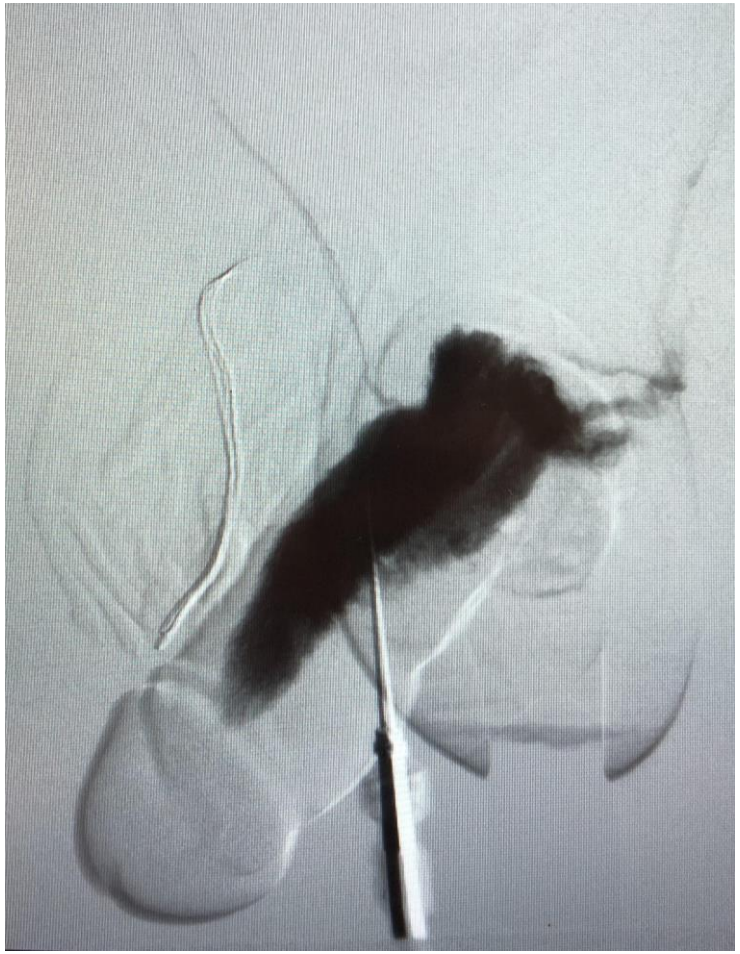




SURGICAL TECHNIQUE

PER-OPERATIVE MORPHOLOGICAL AND FUNCTIONAL ASSESSMENT





RESULTS

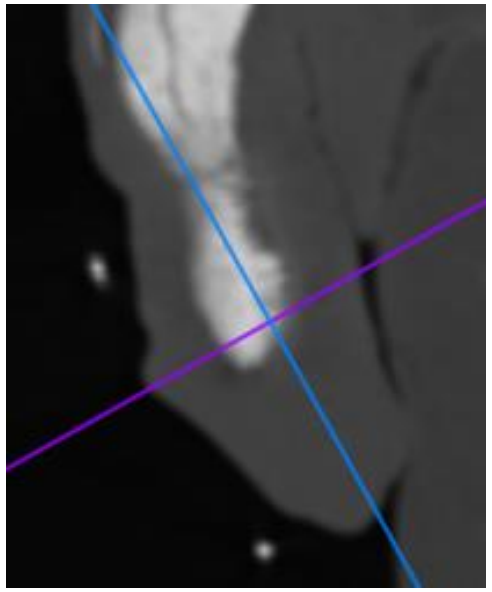
3 MONTH POST-OPERATIVE ASSESSMENT BY PHARMACOLOGICAL DUPLEX ULTRASOUND

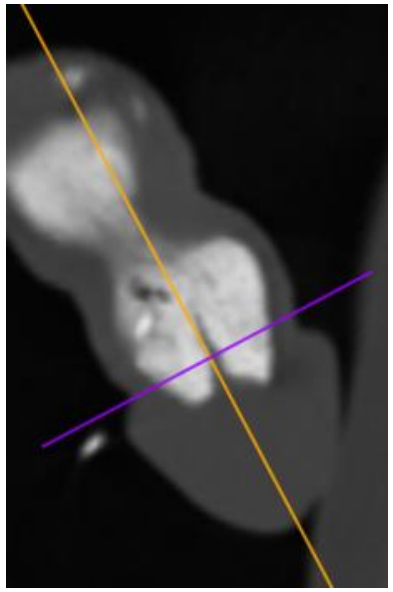
	BEFORE SURGERY	**AFTER SURGERY**	**DELTA**	**Student t Test**
EHS	2.02 +/- 0.65	3.15 +/- 0.76	1.12 +/- 0.71	<0.0001
DDVV (cm/sec.)	13.53 +/- 12.66	0.97 +/- 3.63	-	<0.0001
EDV (cm/sec.)	13.00 +/- 9.93	10.78 +/- 7.05	-	NS
Venous Score	4.68 +/- 1.73	2.0 +/- 1.6	-	<0.0001

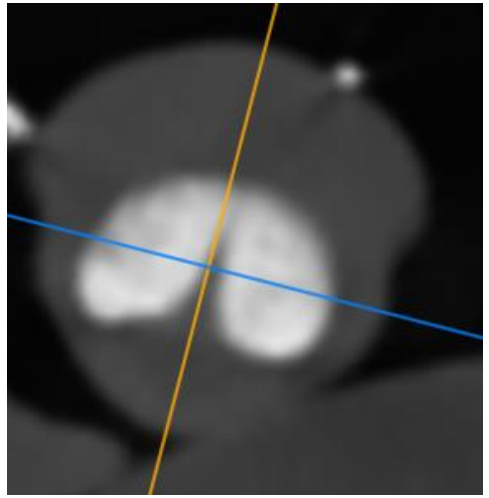
RESULTS

3 MONTH FAILURES

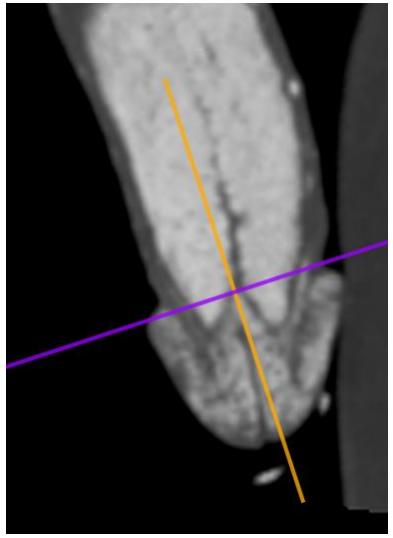
before

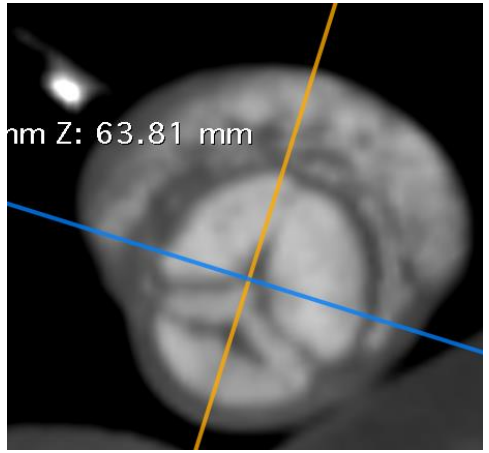






after





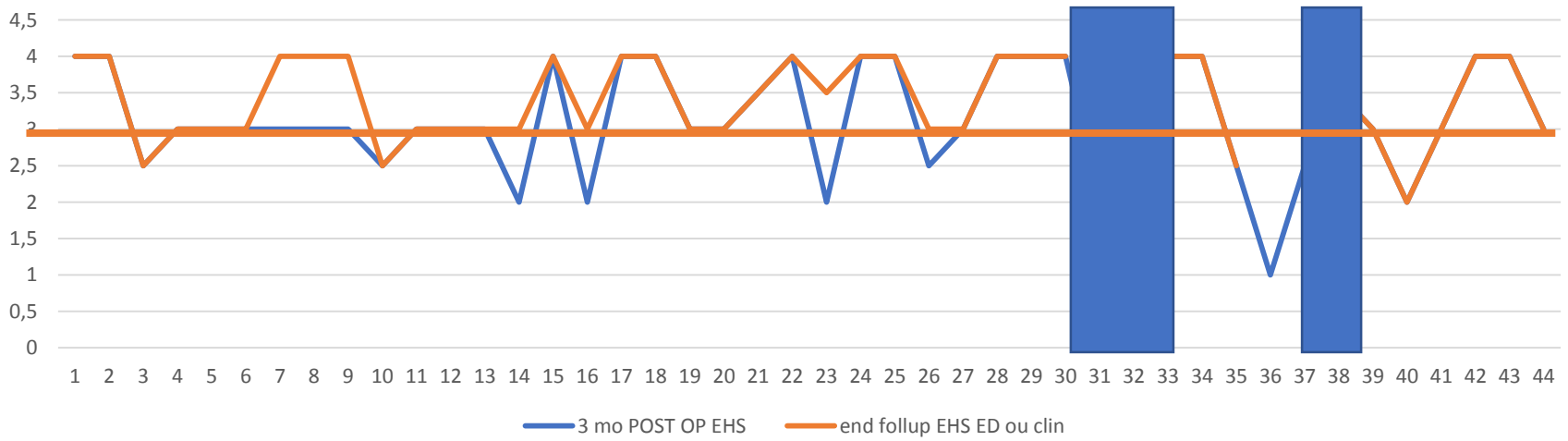
RESULTS

14 MONTH FOLLOW-UP

	BEFORE SURGERY	AFTER SURGERY		Student t Test
EHS	2.02+/- 0.65	3.40 +/- 0.59		P<0.0001
Possible penetration	9.9 %	Primary 73.3 % Secondary 81.8 %* Vasc + implant 90.1 %		

** 1/3 with no medication*

SECONDARY RESULTS (5 REOPERATIONS)



CONCLUSIONS

Endo + open surgery for caverno-venous leakage

Allows 81.8 % patients to perform penetrations after 14 months

One third with no medication

Multidisciplinary approach

Pre-operative diagnosis and anatomic assessment

Extensive venous blockage is key