Pudendal Angioplasty (PTA) For Erectile Dysfunction: How To Diagnose It To Optimize Results Of Treatment

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What is Erectile Dysfunction?

ED is defined as the inability to achieve or maintain penile erection for satisfying sexual intercourse (1)

Assessment of ED - International Index of Erectile Dysfunction (IIEF) score (2,3)
- 15 questions
- Cut-off 21 points

(1) NIH Consensus Conference. JAMA 1993;270(1):83-90

Aetiology of Erectile Dysfunction

Goldstein et al, Male Sexual Circuitry, Scientific American, Vol 283(2), 70-75

Up to 50% of patients have a suboptimal response to PDE5-inhibitor therapy.

Pathophysiology - ED / CAD / PAD

Common cardiovascular risk factors (1)
- Age
- Diabetes mellitus
- Hypertension
- Dyslipidemia
- Tobacco use

ED as independant predictor of PAD/CAD; especially in the young male (2).
Increasing severity of ED associated with increasing prevalence of PAD (3).


Diagnostic Work-Up of ED Patients

Suspected ED
- IIEF

Nocturnal erection?
- Psychological ED
- Functional ED

Arteriogenic ED
- Low systolic velocity (<30 cm/s), RI <0.8

Venogenic ED
- High enddiastolic velocity (>5 cm/s)

Ultrasound
- Confirming venous leakage
- Dynamic cavernosometry & cavernography

Micro- vs Macroangiopathy
- PTA

Emboliisation / surgical ligation
Ultrasound Examination in ED

Ultrasound: important to rule out underlying venous leakage

Optimal Therapy in Arteriogenic ED

>40% of patients do not benefit from PTA at all

Up to 80% of functional ED expected to suffer from arteriogenic & venogenic ED

Summary

- ED frequently of vascular cause.
- ED important marker of cardiovascular disease.
- Proper anamnesis & non-invasive work-up are important to exclude ED from other causes; especially (concomitant) venous leakage.