

Varicocele and PCS One and the same?

Learning from Cases

Tim Sebastian
University Hospital Zurich

Disclosure

Speaker name:

Tim Sebastian.....

I have the following potential conflicts of interest to report:

- Consulting
- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company
- Other(s)

- I do not have any potential conflict of interest

Overlapping symptoms

but often different clinical setting

Varicocele

- scrotal swelling («bag of worms»),
sometimes painful

«Correctable cause for male infertility»

Pelvic congestion syndrome

- pelvic pain (exacerbated by standing,
coitus, menstruation), vulvar swelling, leg
varicosis

Symptom Overlap:

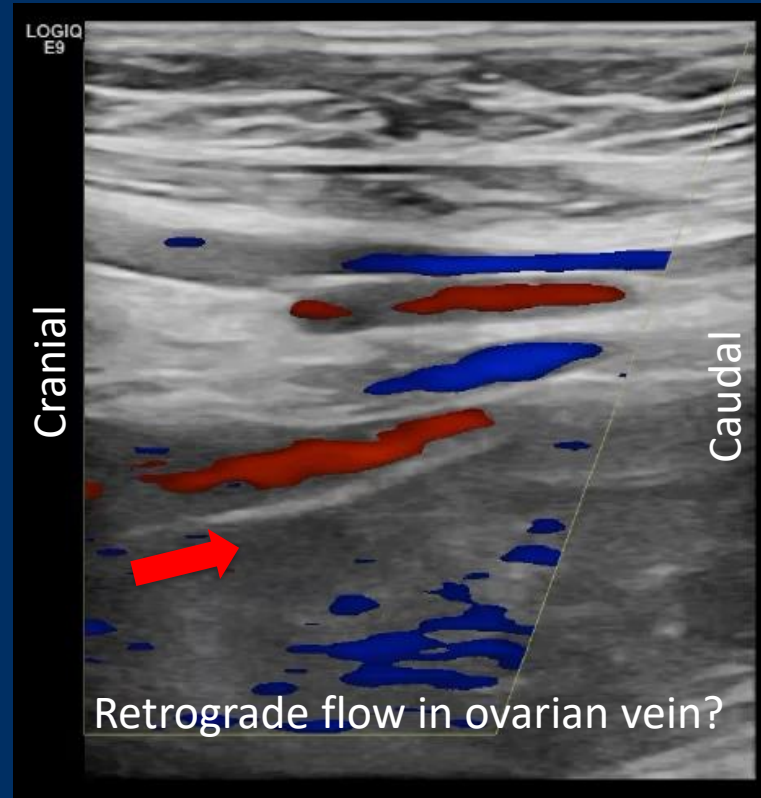
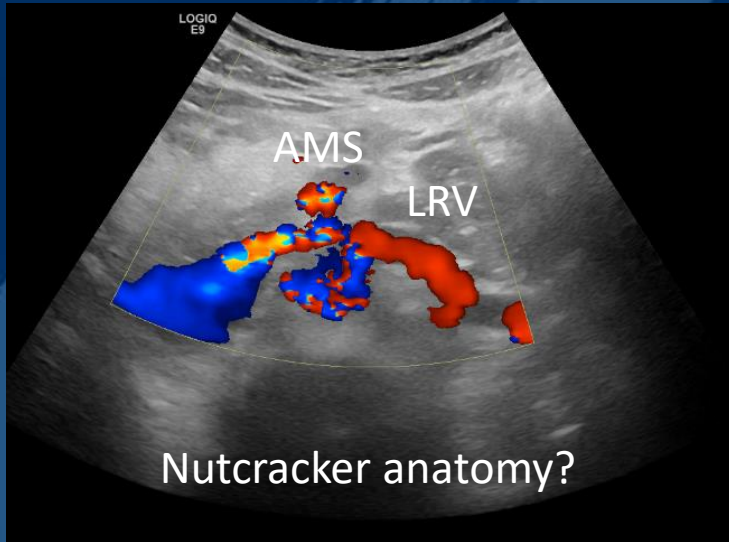
Pelvic pain, groin pain, leg varicosis, obstipation,
hemorrhoids, leg heaviness, rectal discomfort, urinary
urgency

Case 1 - 36 y female patient with suspected PCS

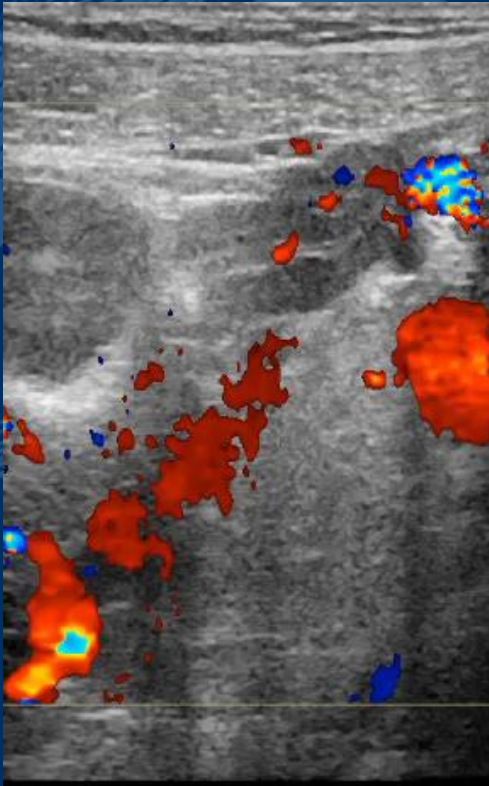
- Previously delivered 3 infants
- Clinically suspected PCS (symptom duration 5 years)
 - Position-dependent pelvic pain
 - Pain worsened around the menstruation period (dysmenorrhoea)
 - Pain was radiating into right groin and thigh
- Multiple medical check-ups with her gynecologists were unremarkable



Case 1 - 36 y female patient with suspected PCS



Case 1 - 36 y female patient with suspected PCS



Parauterine veins with reflux
during valsalva



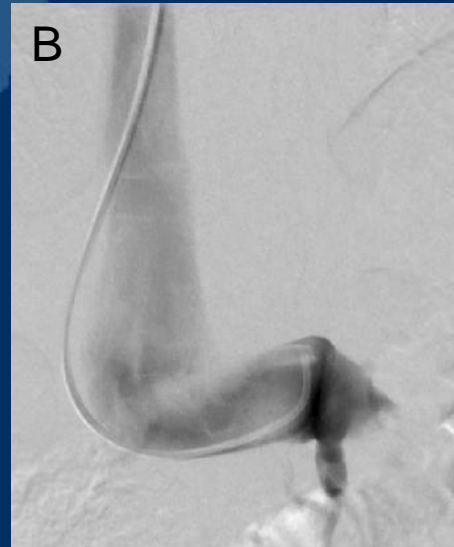
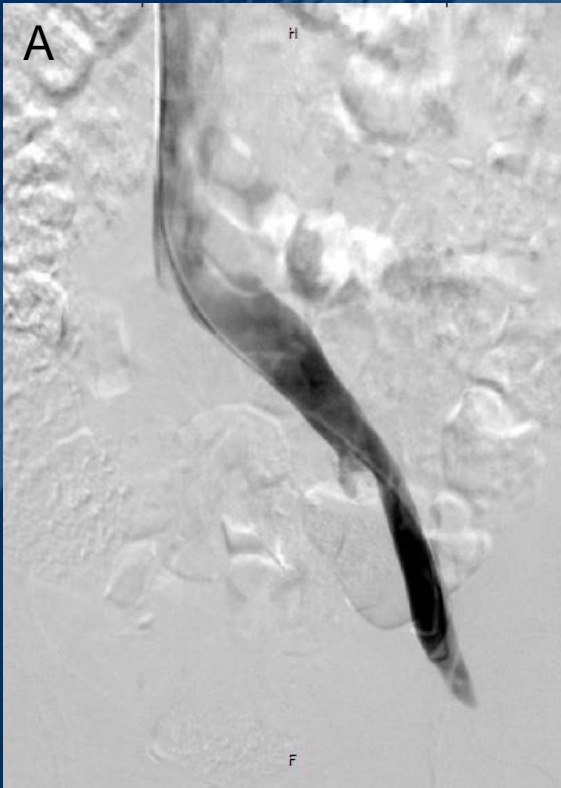
Case 1 - 36 y female patient with suspected PCS



Parauterine veins and dilated left and right ovarian vein



Case 1 - 36 y female patient with suspected PCS



Jugular access

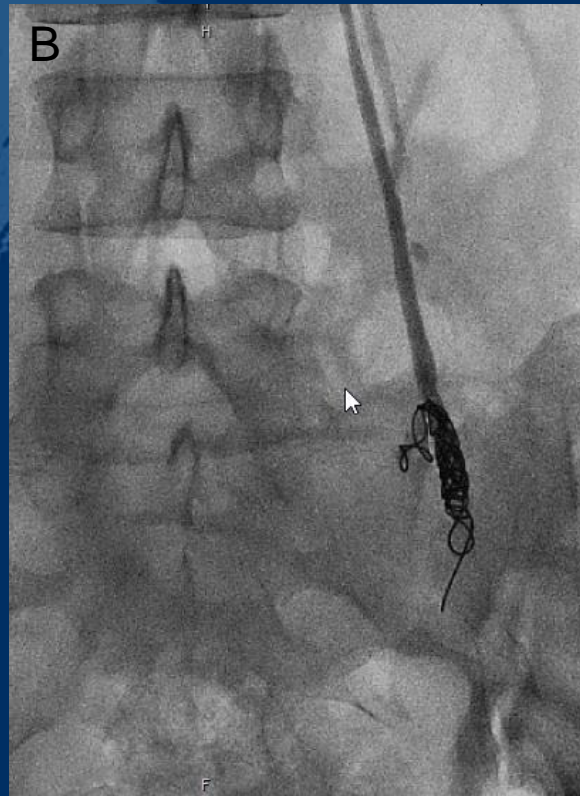
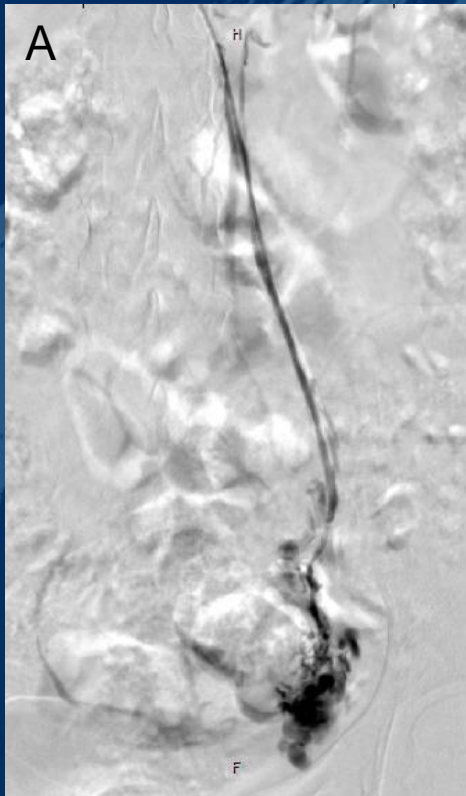
- 5-French Access
- Cobra catheter
- Soft Terumo wire

A: rule out May Thurner compression

B: rule out nutcracker compression



Case 1 - 36 y female patient with suspected PCS



A: Embolisation
(ethoxysclerol)
B: Coiling



Three mechanisms for varicocele and PCS (Greiner)

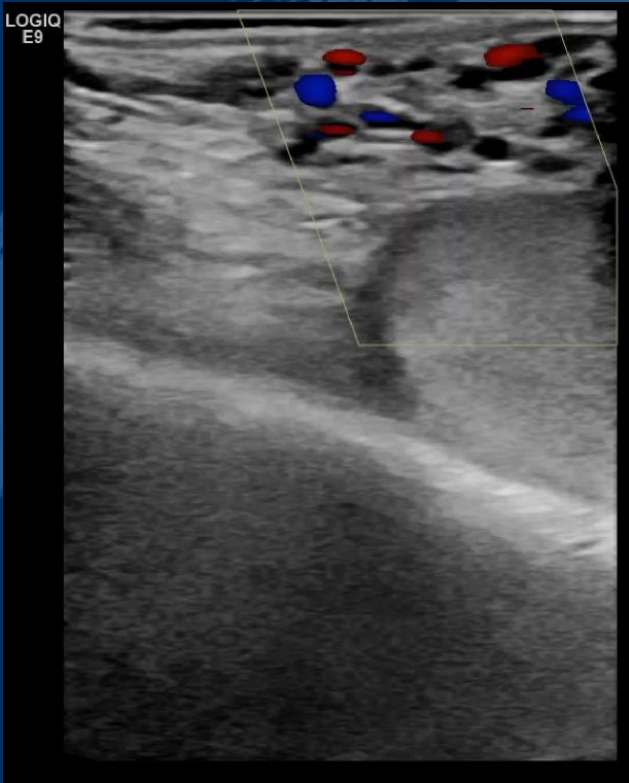
- **Type 1:**
Valvular or parietal insufficiency without deep venous obstruction (primary insufficiency)
- **Type 2:**
Obstruction in a draining vein responsible for symptomatic collaterals (e.g. May-Thurner, Nutcracker, post-thrombotic central veins)
- **Type 3:**
Others

Case 2 - 48 y male patient with suspected varicocele

- Symptomatic recurrent varicocele (left > right)
 - Scrotal pain, groin pain (position-dependent)
 - Left sided pain during exercise (venous claudication)
- Previous surgery
 - laparoscopic left testicular vein clipping)
 - Surgical varicocelelectomy
- Professional driver (unable to work)



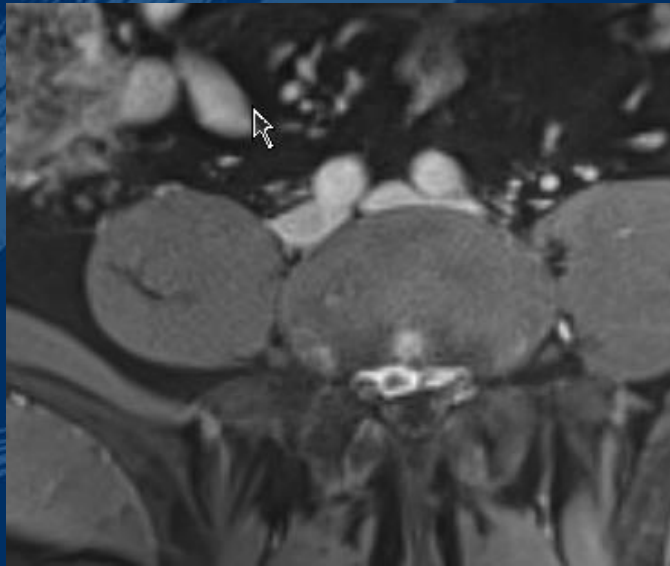
Case 2 - 48 y male patient with suspected varicocele



Recurrent varicocele with reflux during valsalva



Case 2 - 48 y male patient with suspected varicocele



Atypical compression of the left common iliac vein by the left common iliac artery (?)



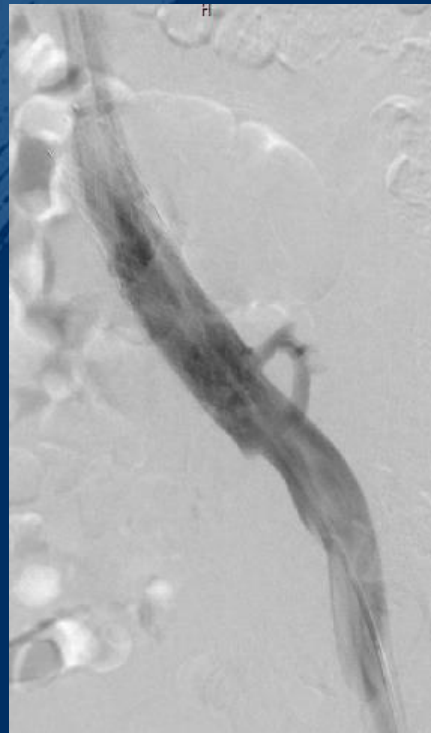
Recurrent varicocele



Intervention 1:

Stent implantation to treat atypical MTS

Case 2 - 48 y male patient with suspected varicocele



Outcome:

Improvement of leg pain but persisting scrotal pain



Intervention 2:

Embolization due to persistent symptoms

Case 2 - 48 y male patient with suspected varicocele



Coils + ethysclerol embolization of right varicocele via obturator vein

Coils + ethysclerol embolization of left varicocele via obturator vein and circumflexa

Clinical suspicion

Abnormal ultrasound

Abnormal MRI

Treatment of obstruction

Embolization

Three mechanisms for varicocele and PCS (Greiner)

- **Type 1:**
Valvular or parietal insufficiency without deep venous obstruction (primary insufficiency)
- **Type 2:**
Obstruction in a draining vein responsible for symptomatic collaterals (e.g. May-Thurner, Nutcracker, post-thrombotic central veins)
- **Type 3:**
Others

What we learn from the cases:

- Varicocele (men) and PCS (women) are frequent conditions with anatomical similarities that may present with overlapping symptoms
- Choice of treatment depends on the underlying cause of reflux (primary versus secondary)
- In case of underlying obstruction embolisation should be performed delayed if symptoms of congestion persist
- There are still many open question regarding the real pathophysiology and the durability of embolization therapy that need to be answered.

Varicocele and PCS One and the same?

Learning from Cases

Tim Sebastian
University Hospital Zurich