Peroneal Varicosities

Introduction
- Peroneal varicosities are caused by venous pathology in the pelvis
  - Gonadal vein
  - Internal iliac veins
- Understanding the venous anatomy of the pelvis is helpful in determining the source of these varicosities
- If the source of the problem is from reflux in the gonadal veins then it is the patient's symptoms that guide therapy

Prevalence
- The world incidence of chronic pelvic pain is between 5.7 and 26.6%
- In the UK it has been reported to be as common as migraines, back pain and asthma
- 30% of all pelvic pain attributed to venous disease
- The overall incidence of labial varicosities is 4%
- Higher in pregnant and multiparous patients
- Villavicencio: 42 women with pelvic varicosities
  - Mean age 31.9 (20-45)
  - Mean onset after the second pregnancy
  - 43% had leg varicosities
  - 26% had pelvic pain
  - 74% had labial varicosities

Venous Anatomy

Treatment Strategy
- Pelvic venous reflux can be divided into two components
  - Superior
    - Renal vein to broad ligament
  - Inferior
    - Broad ligament to extremities
- Superior component typically responsible for pelvic symptoms
- Inferior component typically responsible for lower extremity symptoms
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**Treatment**
- Prior to treatment, imaging of the pelvis venous structures is needed
  - R/O iliac and renal obstructive processes
  - Identify dilated gonadal vein
  - Abdominal ultrasound/ transvaginal ultrasound
  - CT venography
- If obstructive pathology is found treat this first
- If gonadal vein reflux is noted then treat the reflux

**How to Treat: Superior Component**
- Approach
  - Jugular/femoral
  - Left renal vein injection
- Inflate occlusion balloon in distal gonadal vein and injected STS into periuterine venous plexus
- A nest of lower coils are placed
- Occlusion balloon is inflated, More STS and contrast injected and second coil nest placed

**Effect on Vaginal LE Varicosities**
- More than a dozen studies with symptom improvement of 60-100%
- Castenmiller et al (2013)
  - Gonadal vein embolization of 44 patients with pelvic derived LE varicosities
    - 44% left, 7% right, 49% bilateral
    - 88% showed reduction in vaginal varicosities
    - 14% of LE varicosities disappeared without further treatment

**Conclusion**
- Peroneal varicosities most commonly arise from pathology in the internal iliac or the gonadal veins
- Imaging is needed to R/O an obstructive cause
- If the gonadal vein is the source then embolization of the gonadal vein with sclerosis of the periuterine venous plexus is needed to treat pelvic symptoms
- Improvement in pelvic symptoms and peroneal varicosities is typically greater than 80%