Perivaginal Varicose Veins:
Where Are They Coming From
And How To Treat Them

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Nothing to Disclose

Perivaginal Varicosities

Introduction
- Labial varicosities are common in pregnant women
- In multiparous women these varicosities can become very large and painful
- The source of these varicosities are from the pelvis
  - Gonadal vein
  - Internal iliac veins
- Understanding the venous anatomy of the pelvis is helpful in determining the source of these varicosities
- Treatment often depends on clinical symptoms and the extent of disease

Perivaginal Varicosities

Prevalence
- Labial varicosities occur in 10% of pregnant women
- They typically present during the 5th month of pregnancy and steadily increase in size during the last trimester
- Regression after pregnancy is common
- They become more pronounced with each pregnancy
- After a third pregnancy the labial varicosities typically persist after delivery
- In non-pregnant patients the overall incidence of labial varicosities is ~4%

Perivaginal Varicosities

Clinical Presentation
- Focal pain/discomfort
- Dyspareunia
- Pelvic and leg pain and/or heaviness
- Spontaneous hemorrhage
- SVT
- Villavicencio et al described 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

Perivaginal Varicosities

Pelvic Anatomy

Ovarian Vein Anatomy

- Drainage of parametrium, cervix, mesosalpinx and pampiniform plexus
- 2-3 trunks merge to form a single vein at L4
- Right – IVC
- Left – L Renal Vein
- Extensive connections between the II veins the periuterine plexus
- Mean diameter 3.1 mm
- 2-3 valves
- Valvular incompetence in 47% of women
Perivaginal Varicosities

**Iliac Vein Varicosities**
- Pubis, Vulva, Labia majora
- Round ligament
- Obturator vein
- Inner thigh, Posterior vulva
- Internal pudendal
- Ovarian veins
- Gluteal, Posteromedial thigh

**Pelvic Escape Points**
- Perineal
- Inguinal
- Obturator
- Gluteal

**Treatment**
- If disease is not extensive then injection sclerotherapy alone can be very effective
- Ultrasound guided foam sclerotherapy using 1% STS
- Will likely require multiple sessions

**Conclusion**
- Perivaginal varicosities most commonly arise from reflux in the internal iliac or the gonadal veins
- The pattern of reflux on the leg can give some hint as to the source of reflux
- Ultrasound guided injection sclerotherapy can be effective when the extent of disease is limited
- Fluoroscopic guided injections from below can be very effective when symptoms are confined to the lower extremities
- Embolization of the gonadal vein may be needed when pelvic symptoms predominate or when

**Perivaginal Varicosities**

**Treatment**
- If the varicosities are very extensive then consider utilizing fluoroscopic guidance
- Allows for administration of large volumes of sclerosants
- Good control of sclerosant
- Consider fluoroscopy if U/S guided sclerotherapy is ineffective

**Perivaginal Varicosities**

**Treatment**
- If the patient has pelvic symptoms as their dominant complaint consider imaging for gonadal vein reflux
  - Abdominal ultrasound/ Trans vaginal ultrasound
  - CT venography
- If pelvic symptoms and gonadal vein reflux is present consider embolizing the refluxing gonadal vein
- 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