Controversies & updates in Vascular Surgery

Paris - January 21, 2017
Vulvar varicose veins after pregnancy

Is duplex scan sufficient to find the sources?

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Disclosure

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I have the following potential conflicts of interest to report:

- [ ] Consulting
- [ ] Employment in industry
- [ ] Shareholder in a healthcare company
- [ ] Owner of a healthcare company
- [ ] Other(s)

- [x] I do not have any potential conflict of interest
Vulvar varicose veins during pregnancy during pregnancy:

- hormonal factors
- mechanical factors
- hemodynamic factors

= dilation of the venous trunks of pelvis and lower limbs

>> valvular incompetence
Vulvar varicose veins after pregnancy

after pregnancy:
- hormonal factors → ↑ venous tonicity
- mechanical factors → ↓ venous pressure
- hemodynamic factors

>> valvular competence
Vulvar varicose veins after pregnancy

after pregnancy:

- if pre-existing valvular disease
- if vein parietal anomaly - varicose heredity +++
- if multiple et close pregnancies +++

>> residual varicose veins in the pelvis and lower limbs
Vulvar varicose veins
Origin of vulvar varicose veins

Vulvar varices are expression of the exteriorization of a pelvic venous trunk via a leak point
Origin of vulvar varicose veins

Vulvar varices are expression of the exteriorization of a pelvic venous trunk via a leak point.

2 main leak points involved in vulvar varicose veins:

- **P** point (perineal)
- **I** point (inguinal)
Leak point

= reverse flow in an anatomical drainage pathway
Draining path = Alcock’s canal

EXTERNAL ILIAC v.

COMMON FEMORAL v.

SAPHENO-FEMORAL junction

PUDE NDAL LATERAL v.

ANTERIOR LABIAL v.

INTERNAL ILIAC v.

PUDE NDAL MEDIAL v.

aponeurotic crossing

Alcock’s canal

SUPERFICIAL PERINEAL v.

POSTERIOR LABIAL v.
Leak point = P point

**EXTERNAL ILIAC v.**

**COMMON FEMORAL v.**

**SAPHENO-FEMORAL junction**

**PUDENDAL LATERAL v.**

**ANTERIOR LABIAL v.**

**INTERNAL ILIAC v.**

**PUDENDAL MEDIAL v.**

*Franceschi C. Phlébologie 2004; 57: 237-42*

*Franceschi C. Ann Vasc Surg 2005; 19: 284 – 8*
Leak point = P point

- examination position
  - decubitus
  - orthostatism
Leak point = P point

- examination position
  - decubitus
  - orthostatism

- location
  = \( \frac{3}{4} \) posterior of the vulva
Leak point = P point

- ultrasound semiology
  - ischio-pubic branch
  - superficial aponeurosis of the perineum
  - above aponeurosis: external concavity
Leak point = P point
Leak point = P point
Leak point = P point

troncular form
Leak point = P point

pluri-troncular or plexiforme forms
Leak point = P point

left vulvar varices fed by a right P point
Leak point = P point

- a P point always exteriorizes a reflux of the medial pudendal vein

- but the origin of reflux can be:
  - the proximal trunk
  - the distal trunk
  - tributaries located in Alcock’s canal
Leak point = 1 point

- **EXTERNAL ILIAC v.**
- **INTERNAL ILIAC v.**
- **UTERINE v.**
- **ROUND LIGAMENT v.**
- **SUPERFICIAL PERINEAL v.**
- **LATERAL PUDENDAL v.**
- **INFERIOR EPIGASTRIC v.**

leak = 1 point *

inguinal canal

v. of mont de Vénus

Netter
Leak point = 1 point

• examination position
  - decubitus
  - orthostatism
Leak point = 1 point

- examination position
  - decubitus
  - orthostatism

- location
  = external orifice of the inguinal canal
  - above of the inguinal canal
  - outside femoral vessels
Leak point = 1 point

- ultrasound semiology
  - outside femoral vessels
  - internal concavity
  - sus-inguinal dystrophic venous network
    = pathognomonic
Leak point = 1 point

right 1 point

sus-inguinal dystrophic venous network
dystrophic venous network located above the inguinal ligament
Leak point = 1 point
Leak point = 1 point
Leak point = I point

• I point is linked to a homolateral parametrical varicosis,
  fed by reno-ovarian and / or uterine reflux
duplex-scan sufficient?
duplex-scan sufficient?

YES

- because these leak points are superficial

>> no technical limitation

>> it is enough to know them!

... thanks to Claude FRANCESCHI
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Pathogenesis of pelvic congestion syndrome

PELVIC VARICES = venous stasis = venous pressure ↑

IRRITATION of ORGANS located near vagina, uterus, rectum, bladder, nerve sciatic

PELVIC CONGESTION SYNDROM (PCS)
left ovarian vein reflux (1)

left parametrial & lateral uterine varicose (2)
Drainage of the pelvic varicosis by:

(1) contro-lateral ovarian v.

(2) medial pudendal v.

(3) P point
well drained pelvic varicose

normal venous pressure

no PCS
Isolated closure of an effective leak point

lower limbs level:
↓ varices
Isolated closure of an effective leak point

pelvic level:
venous drainage ↓
venous pressure ↑

lower limbs level:
↓ varices
Risks ??

(1) pelvic congestion syndrom
(2) pelvic varices ↑
(3) vaginal varices
(4) varices of the labia major, vulva
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Paris - January 21 – 23 2017