



# Controversies & updates in Vascular Surgery

**Paris - january 21 2017**

Venous session

# **Vulvar varicose veins after pregnancy**

**Is duplex scan sufficient to find the sources ?**

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## Disclosure

Speaker name : Lemasle Philippe

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)
- ☒ 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

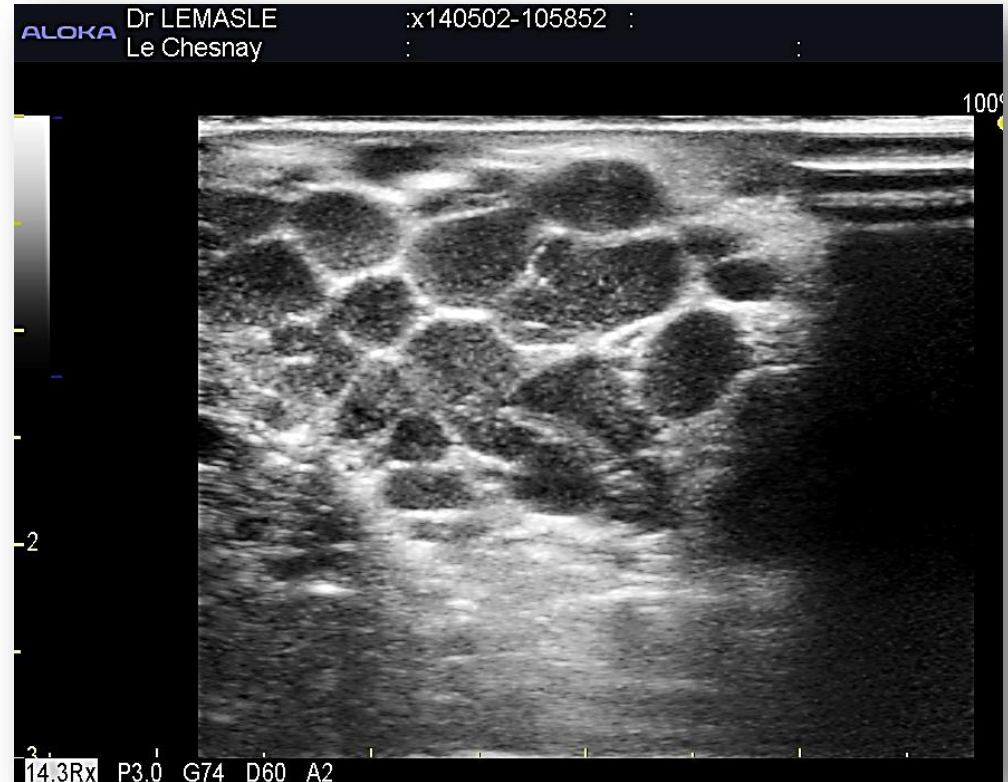
# Vulvar varicose veins after pregnancy

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

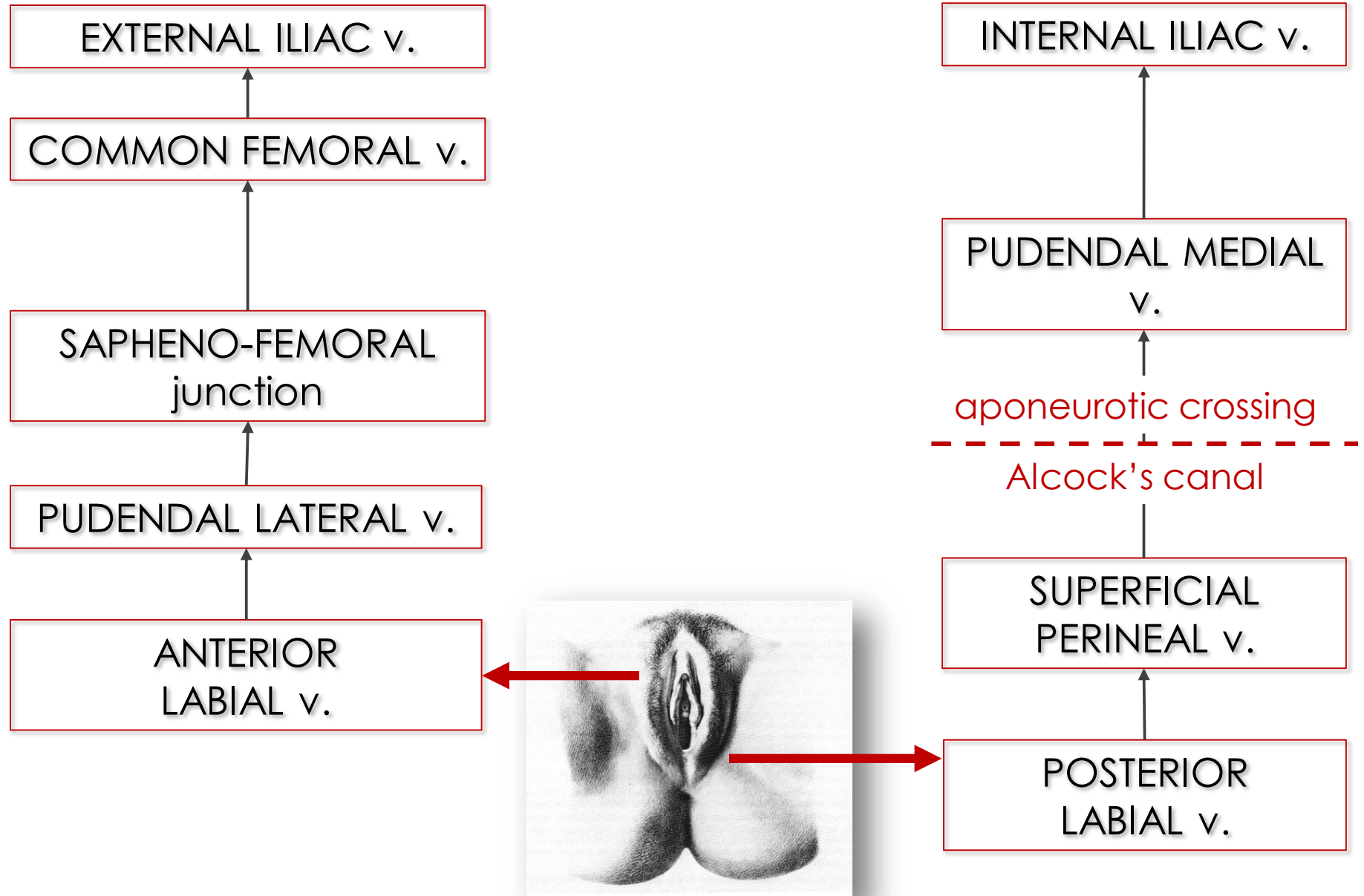
2 main leak points involved in vulvar varicose veins :

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

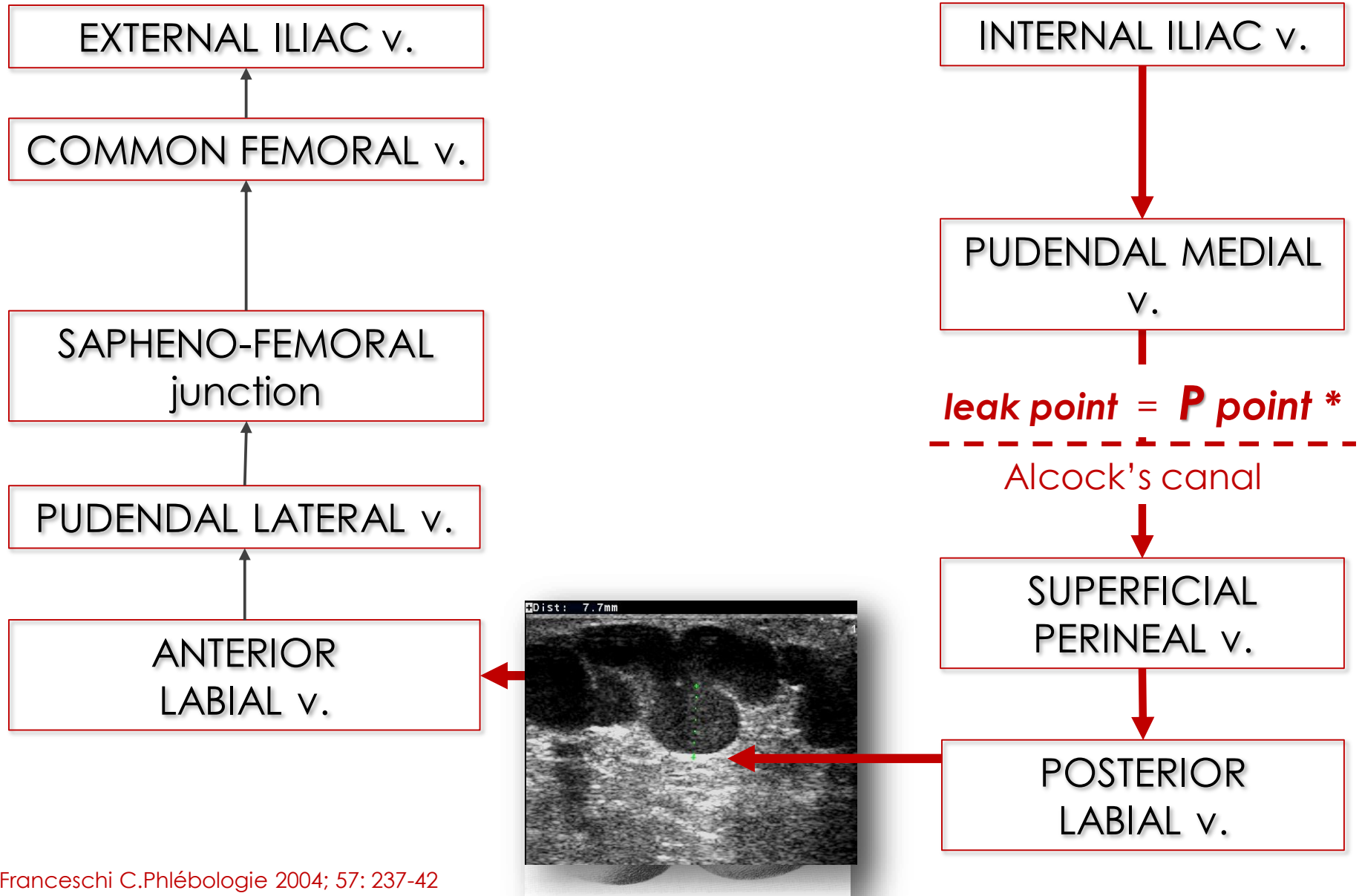
## Leak point

= reverse flow in an anatomical drainage pathway

# Draining path = Alcock's canal



# Leak point = P point



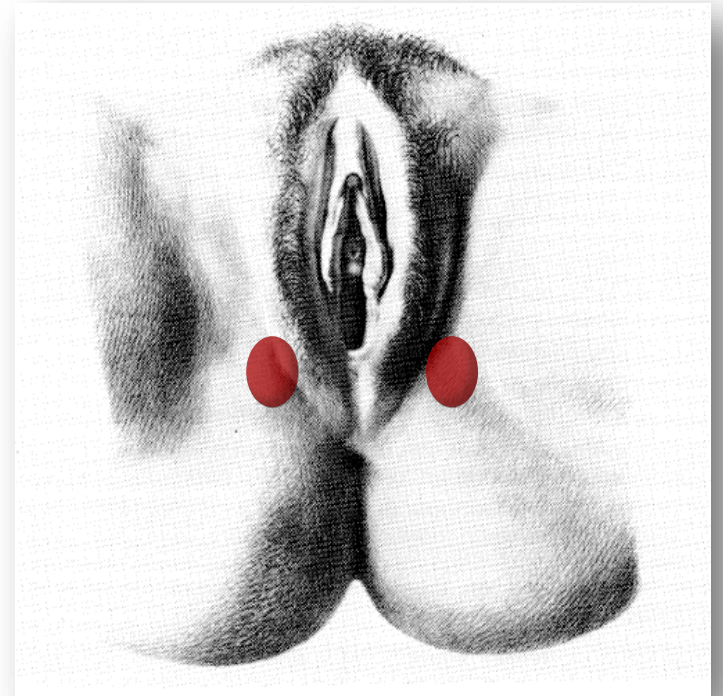
\* Franceschi C. Phlébologie 2004; 57: 237-42  
\* Franceschi C. Ann Vasc Surg 2005; 19 : 284 – 8

# Leak point = P point

- examination position
  - decubitus
  - orthostatism

# Leak point = P point

- examination position
  - decubitus
  - orthostatism
- location
  - =  $\frac{3}{4}$  posterior of the vulva

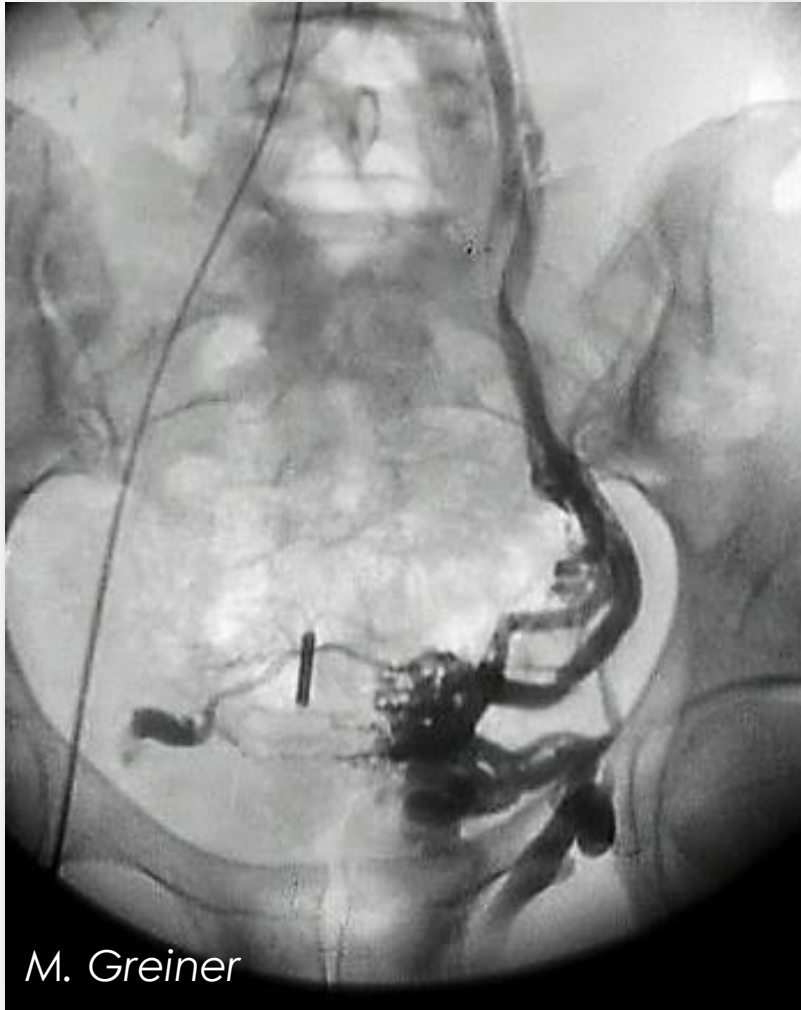


# Leak point = P point

- ultrasound semiology
  - ischio-pubic branch
  - superficial aponeurosis of the perineum
  - above aponeurosis : external concavity

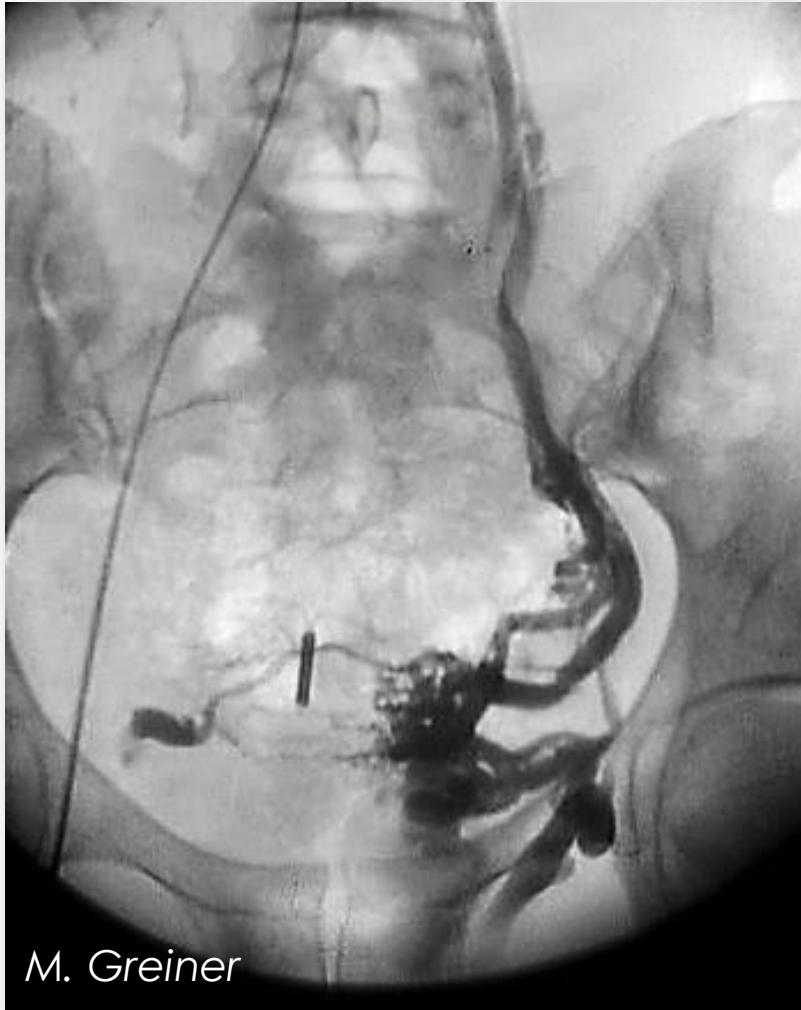


**Leak point = P point**

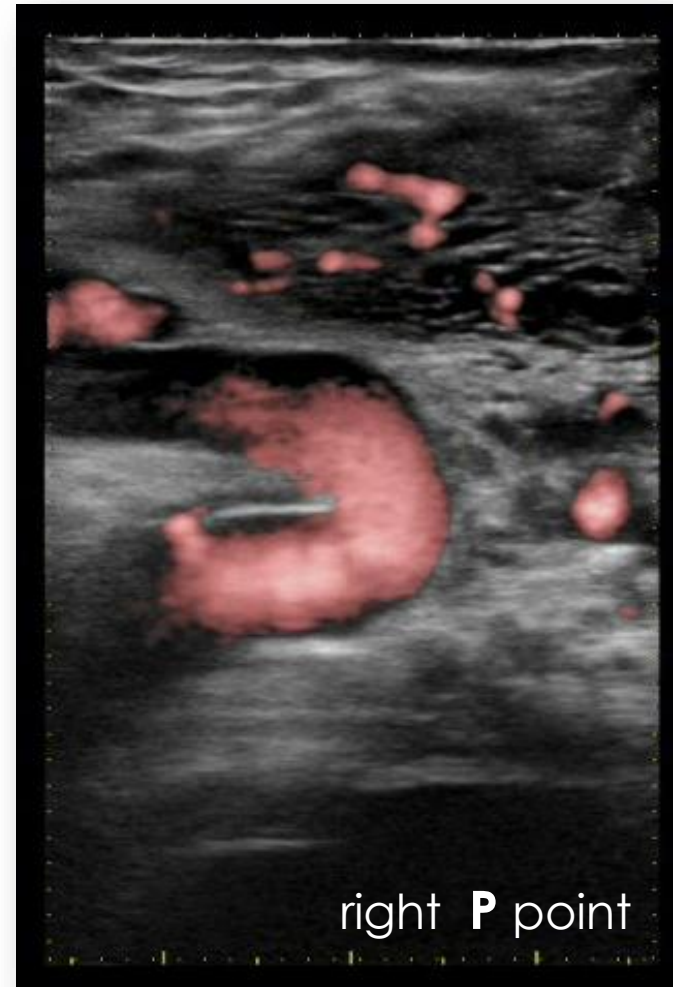
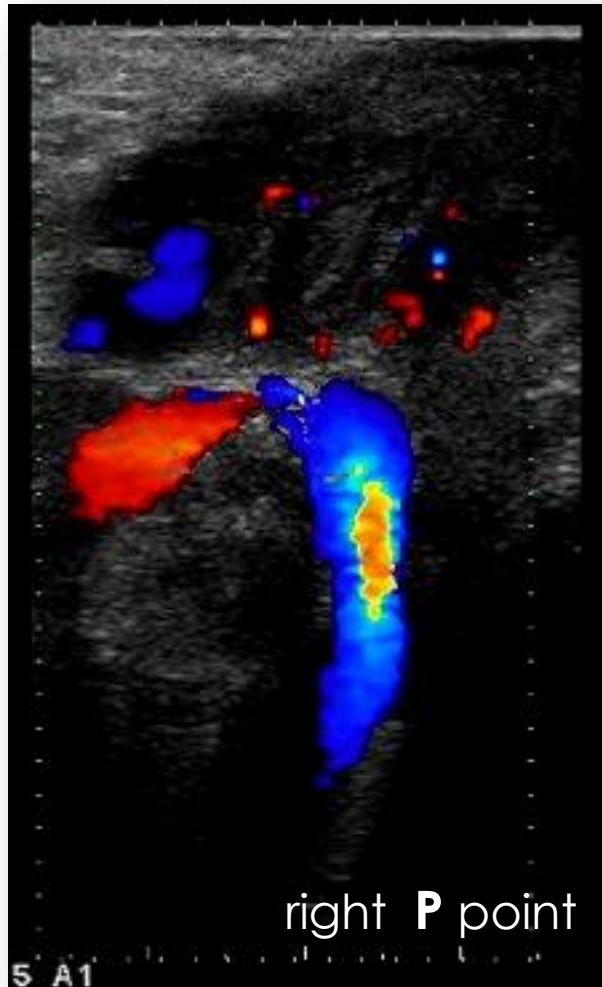




Leak point = P point

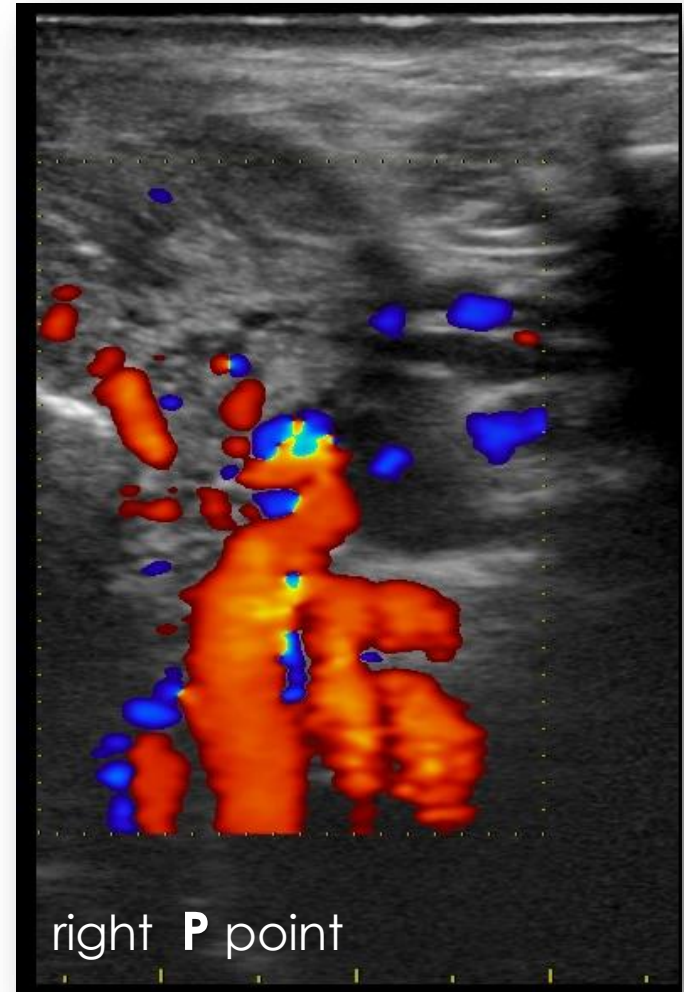
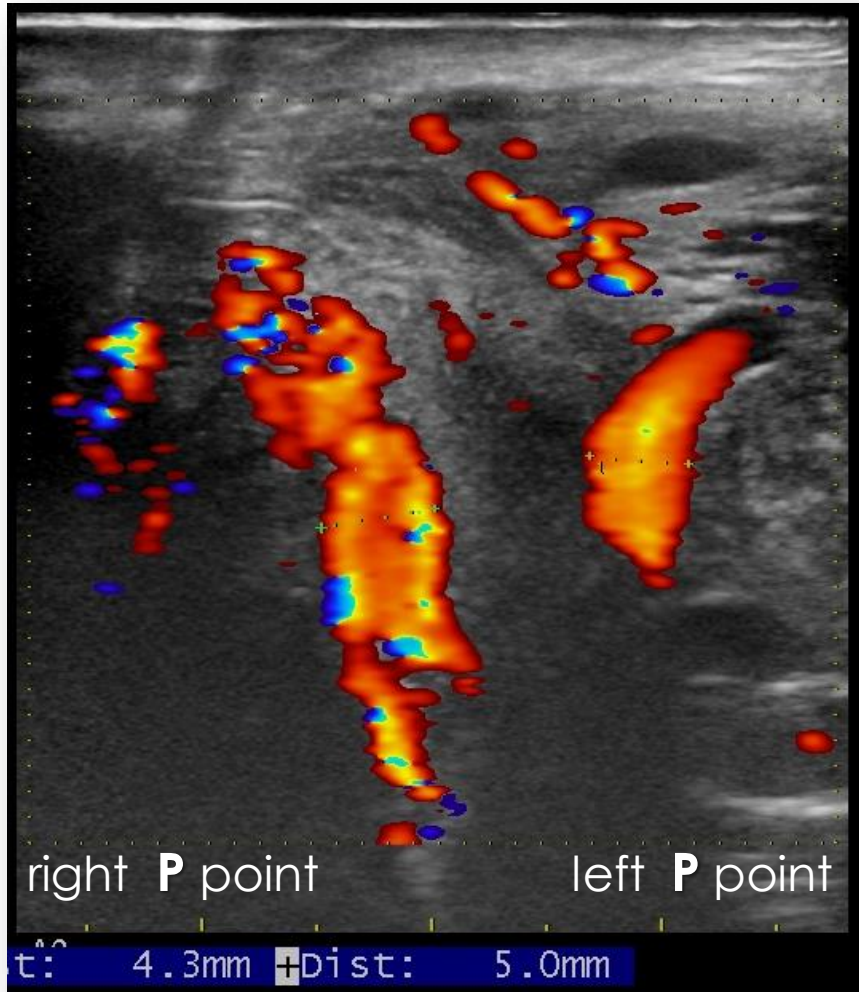


Leak point = P point



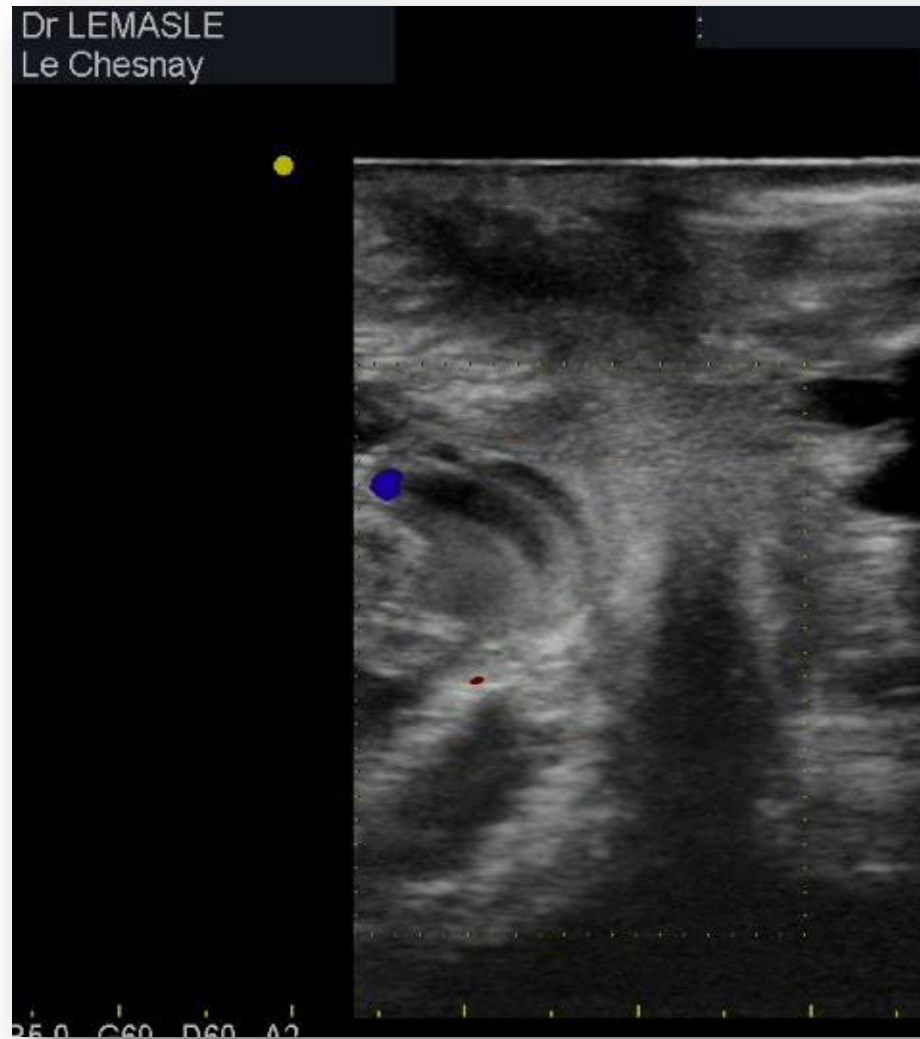
troncular form

**Leak point = P point**



pluri-troncular or plexiforme forms

# Leak point = P point



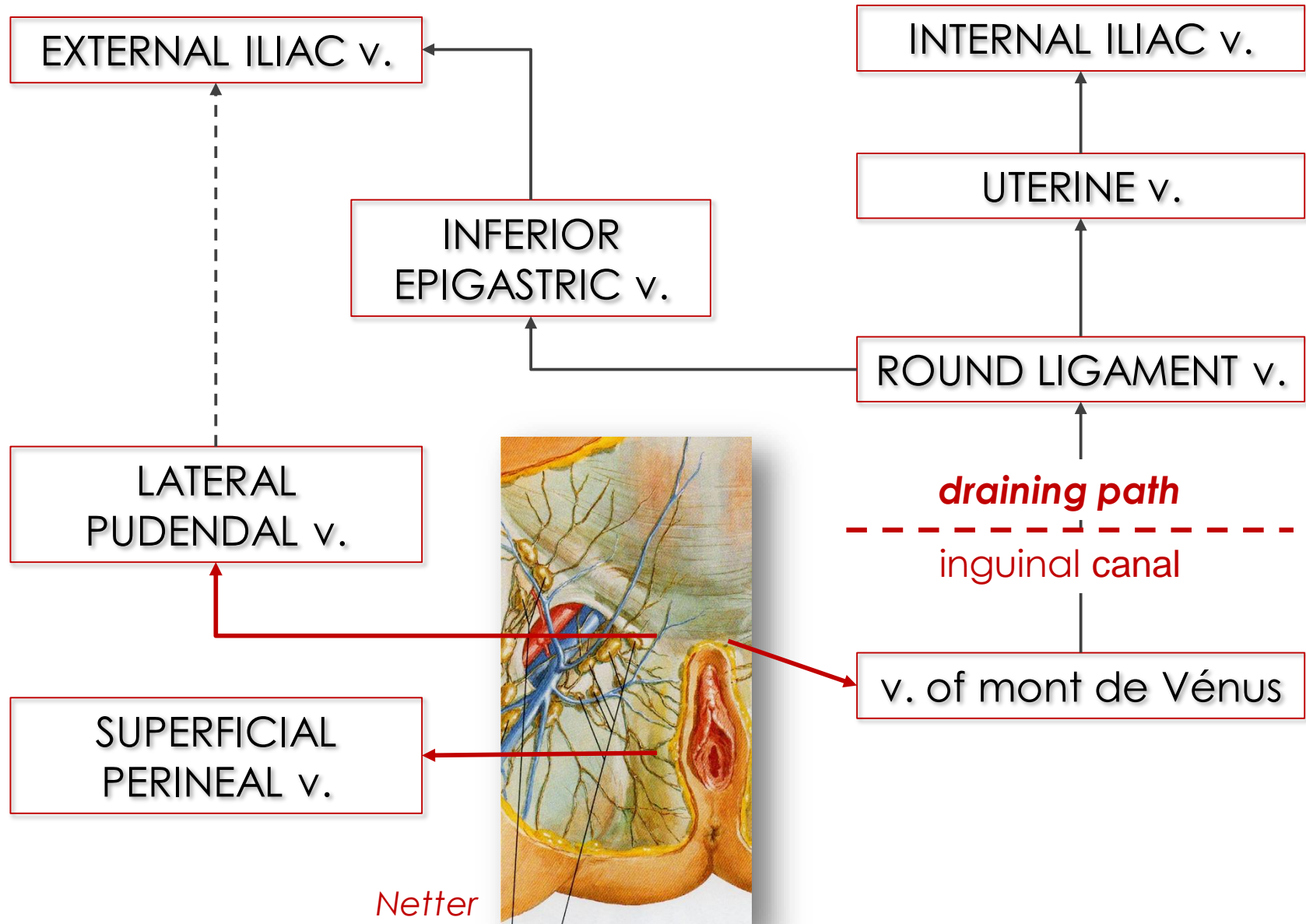
left vulvar varices fed by a right **P** point

# Leak point = P point

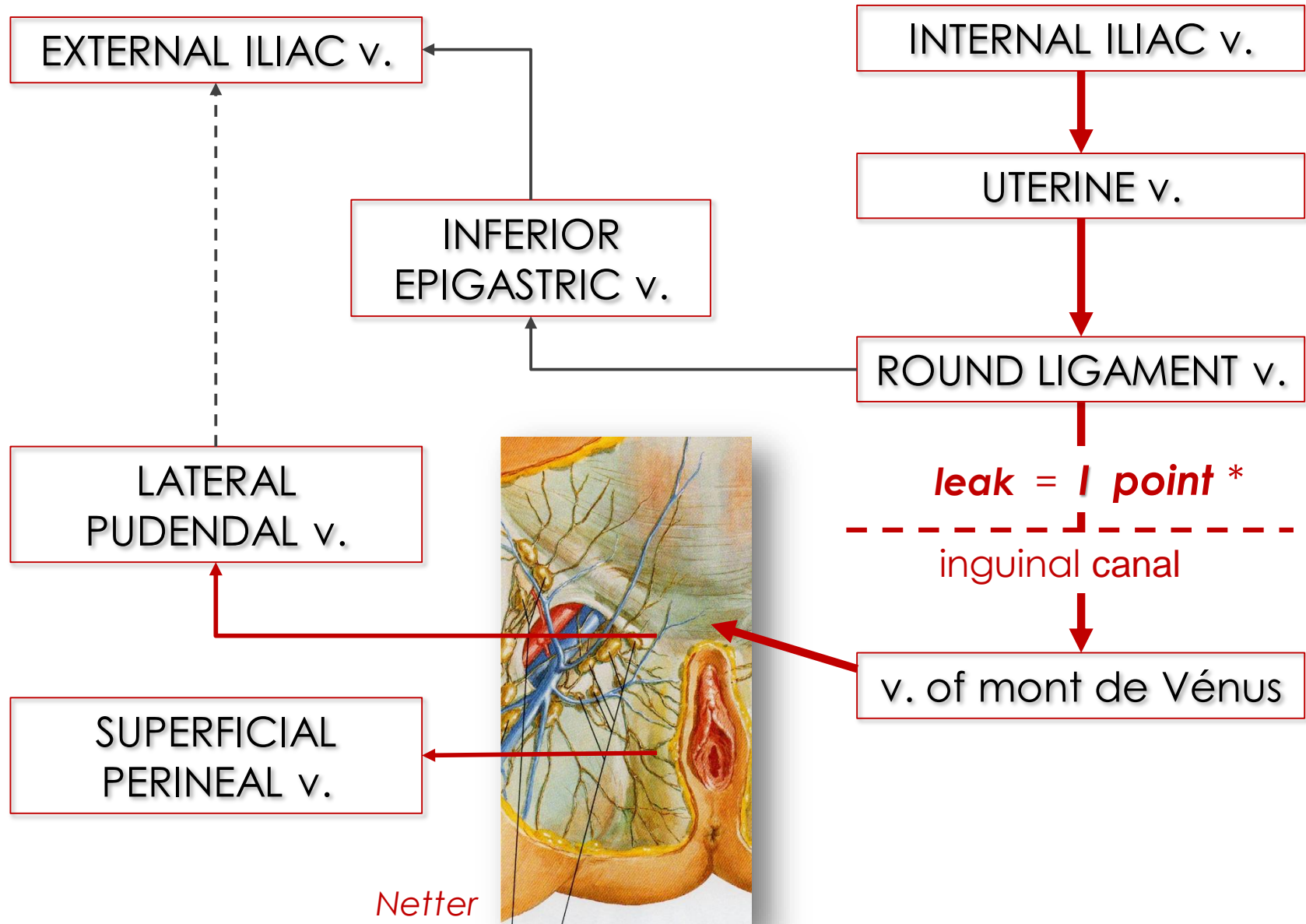
- a **P** point always exteriorizes a reflux of the medial pudendal vein
- but the origin of reflux can be :
  - the proximal trunk
  - the distal trunk
  - tributaries located in Alcock's canal



# Draining path – inguinal canal



# Leak point = I point



# Leak point = 1 point

- examination position
  - decubitus
  - orthostatism



# Leak point = I point

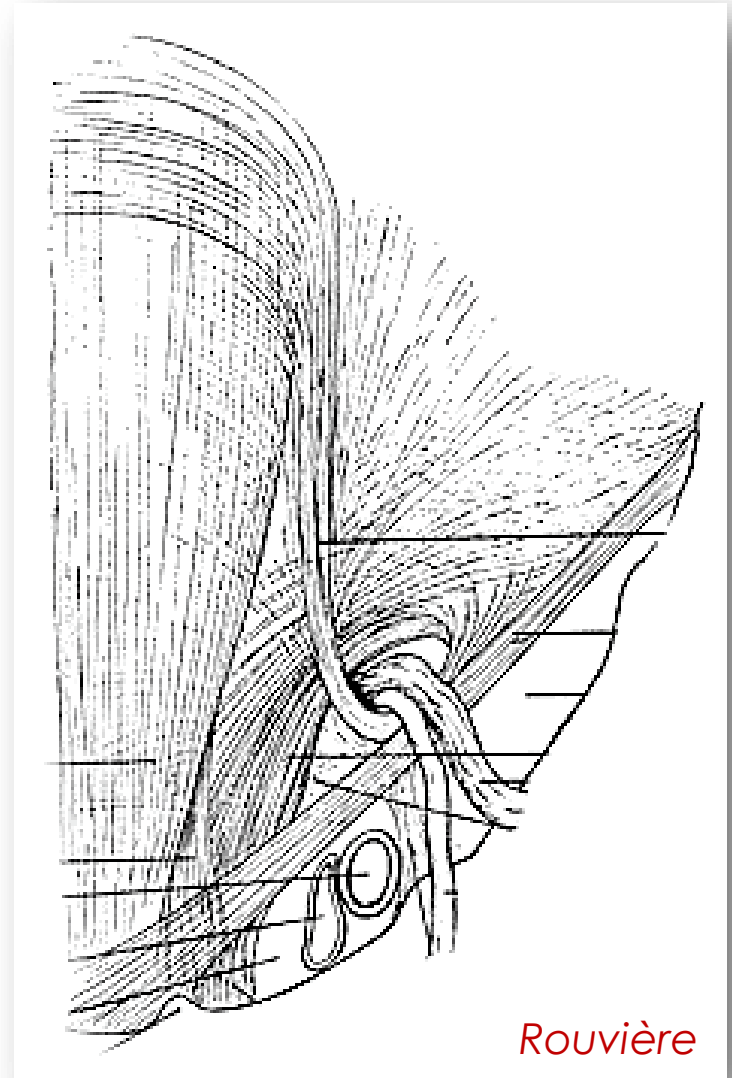
- examination position

- decubitus
- orthostatism

- location

= external orifice of the inguinal canal

- above of the inguinal canal
- outside femoral vessels

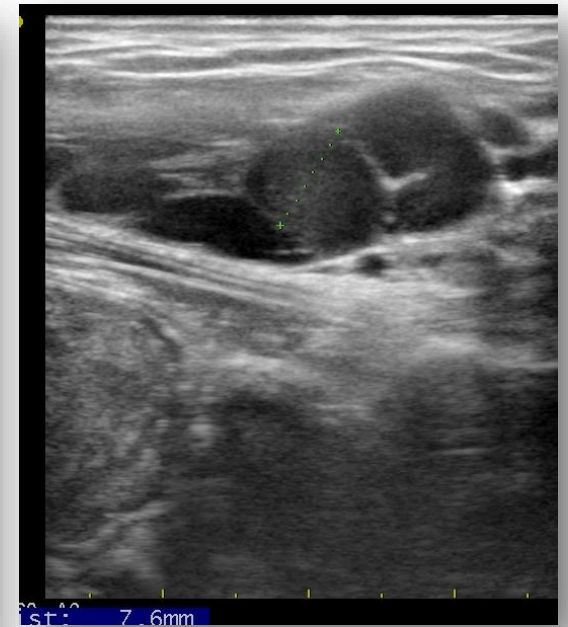
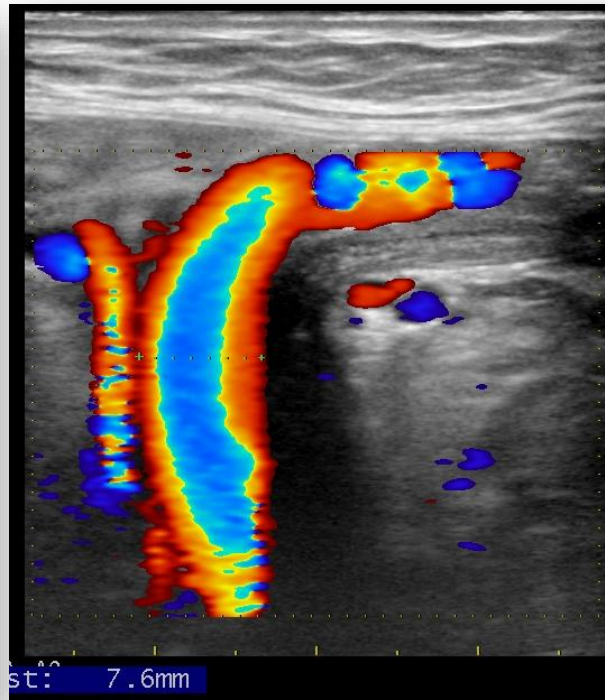


# Leak point = I point

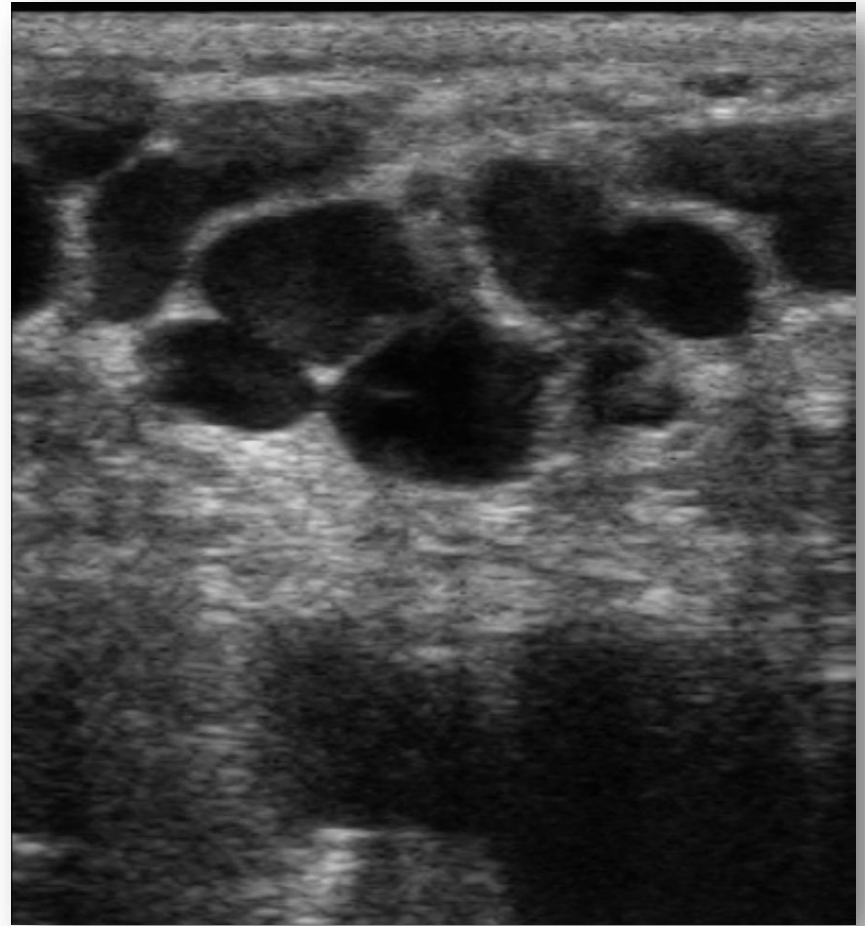
- ultrasound semiology
  - outside femoral vessels
  - internal concavity
  - sus-inguinal dystrophic venous network  
= pathognomonic



# Leak point = I point



sus-inguinal  
dystrophic  
venous network



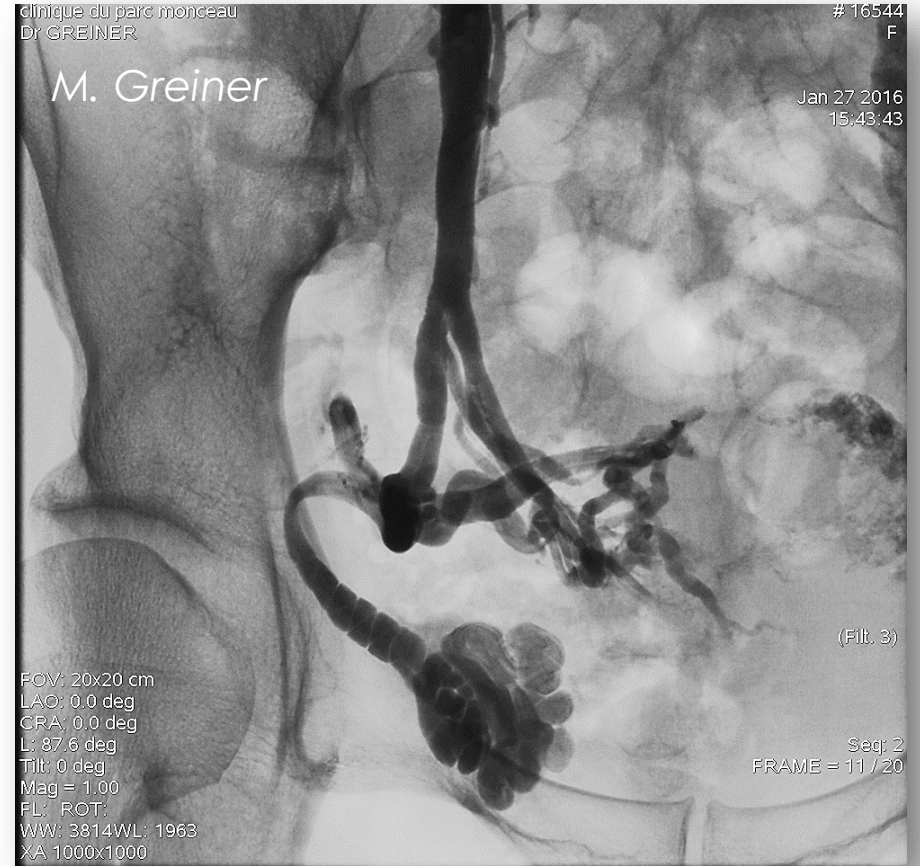
dystrophic venous network located above the inguinal ligament

**Leak point = I point**





# Leak point = I point



# Leak point = I point

- I point is linked to a homolateral parametrial 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



# Controversies & updates in Vascular Surgery



Paris - January 2, 2017



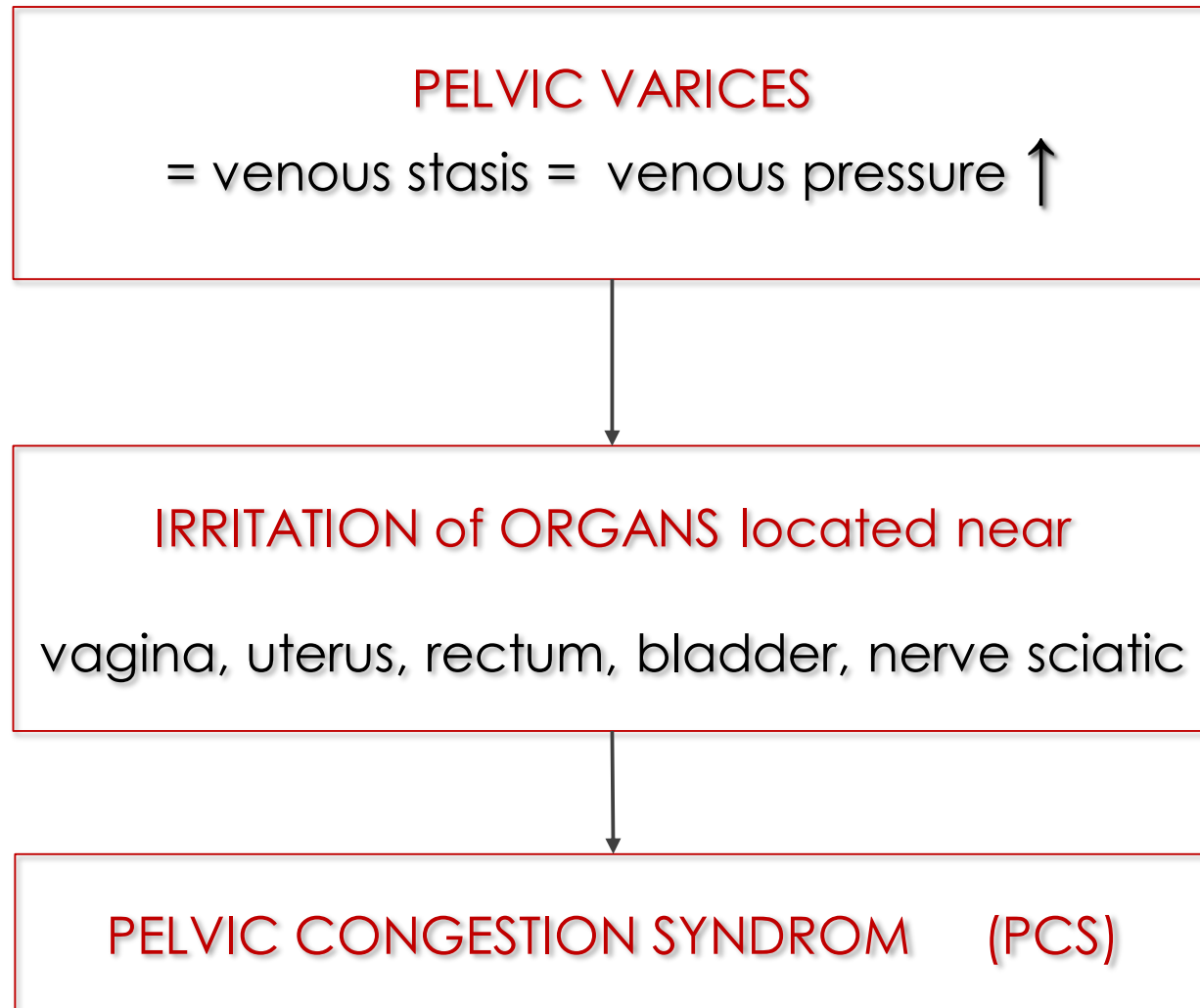
# Controversies & updates in Vascular Surgery

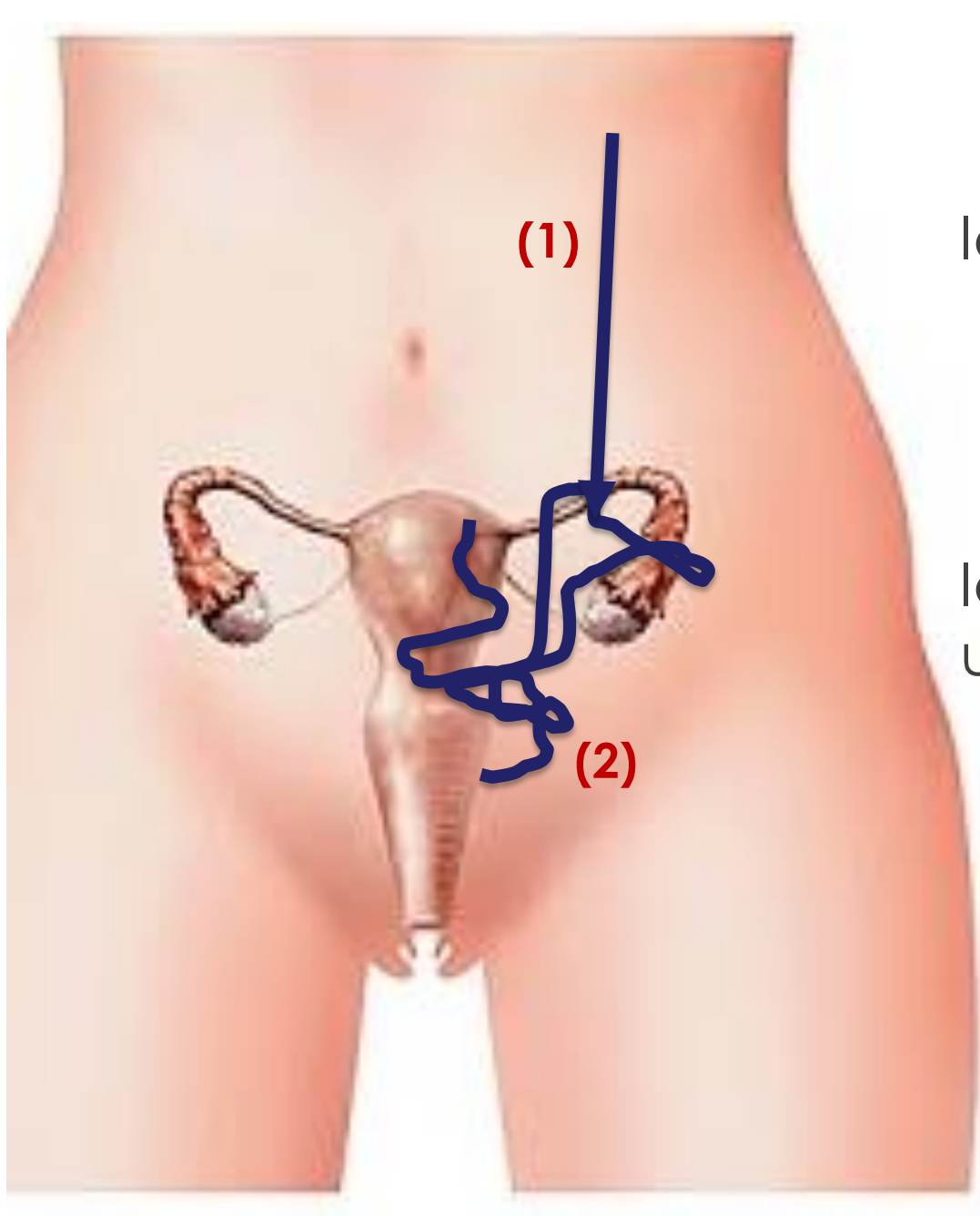


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# Pathogenesis of pelvic congestion syndrom





(1)

left ovarian vein reflux (1)



left parametrial & lateral  
uterine varicose (2)

(2)

## *Drainage of the pelvic varicosis by :*

(1)

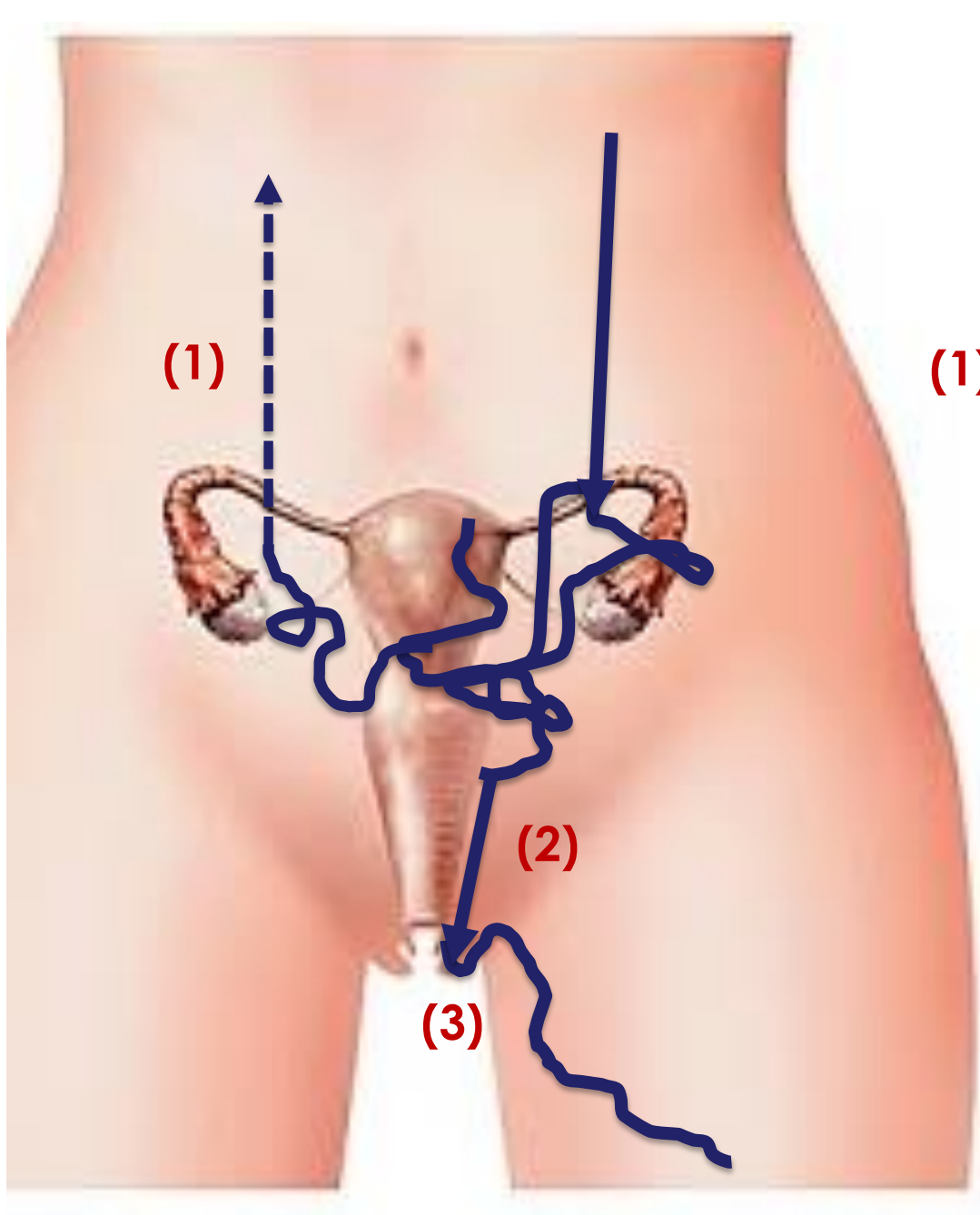
(1) contro-lateral ovarian v.

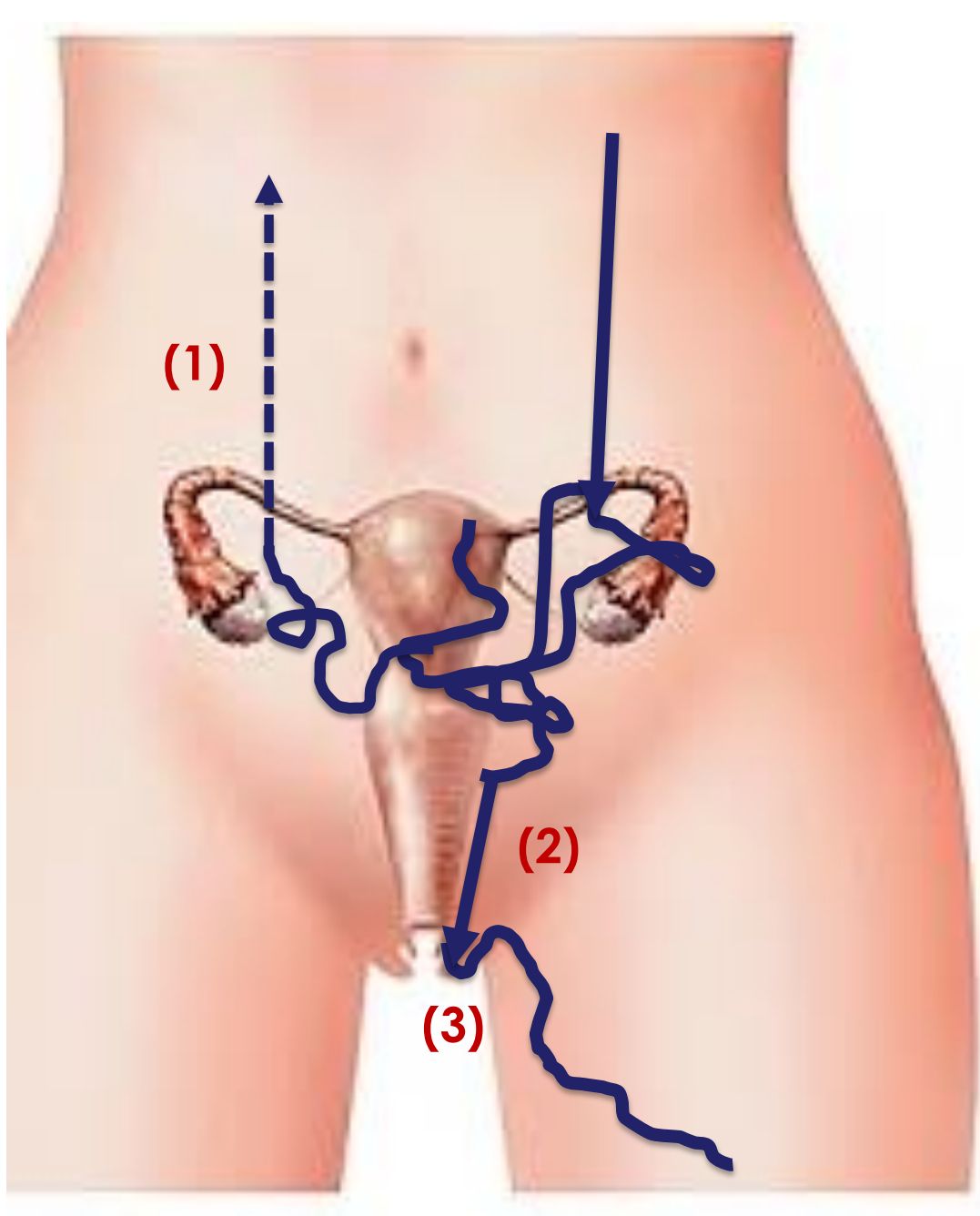
(2)

(2) medial pudendal v.

(3)

(3) **P** point





well drained pelvic  
varicose



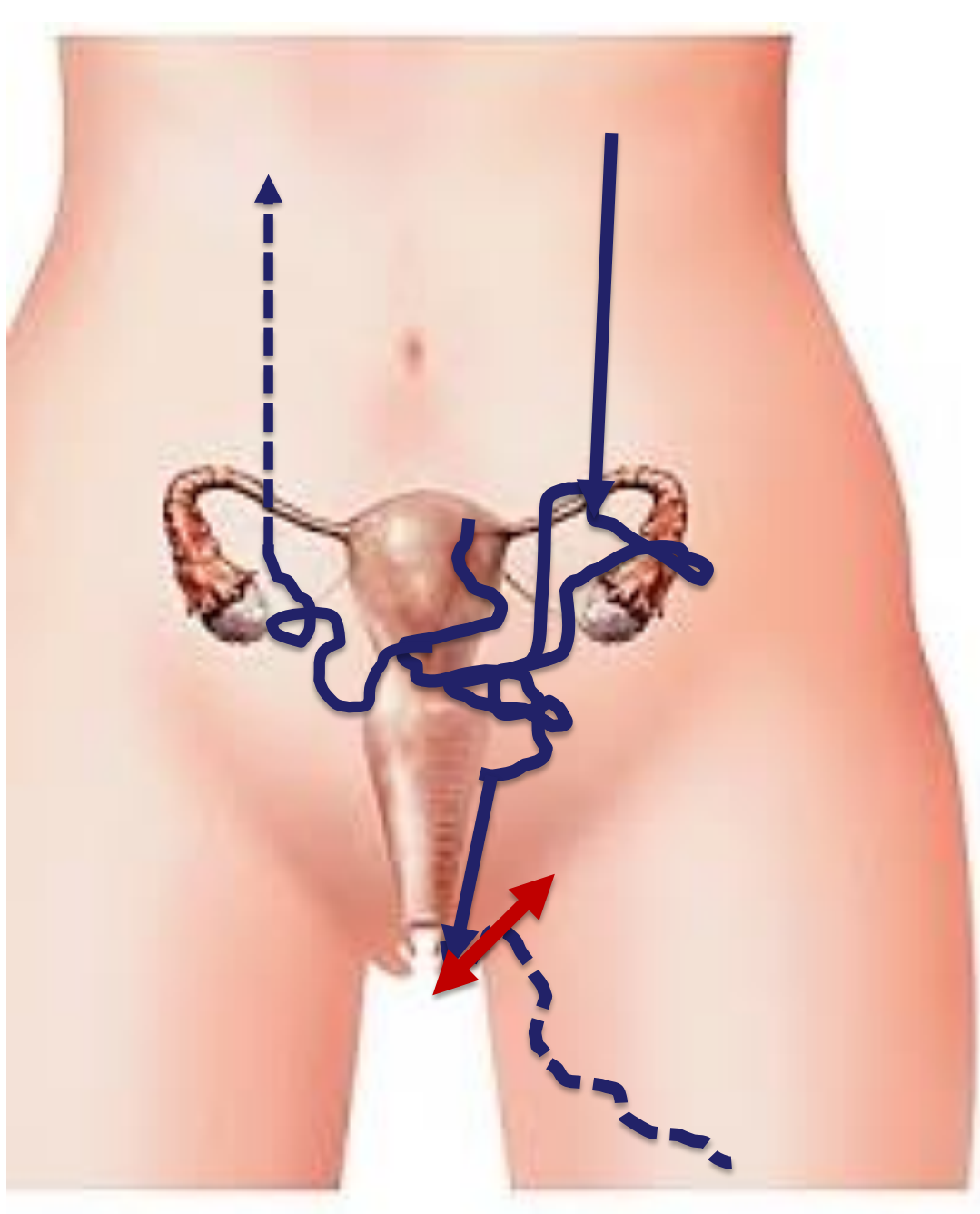
normal venous pressure



**no PCS**

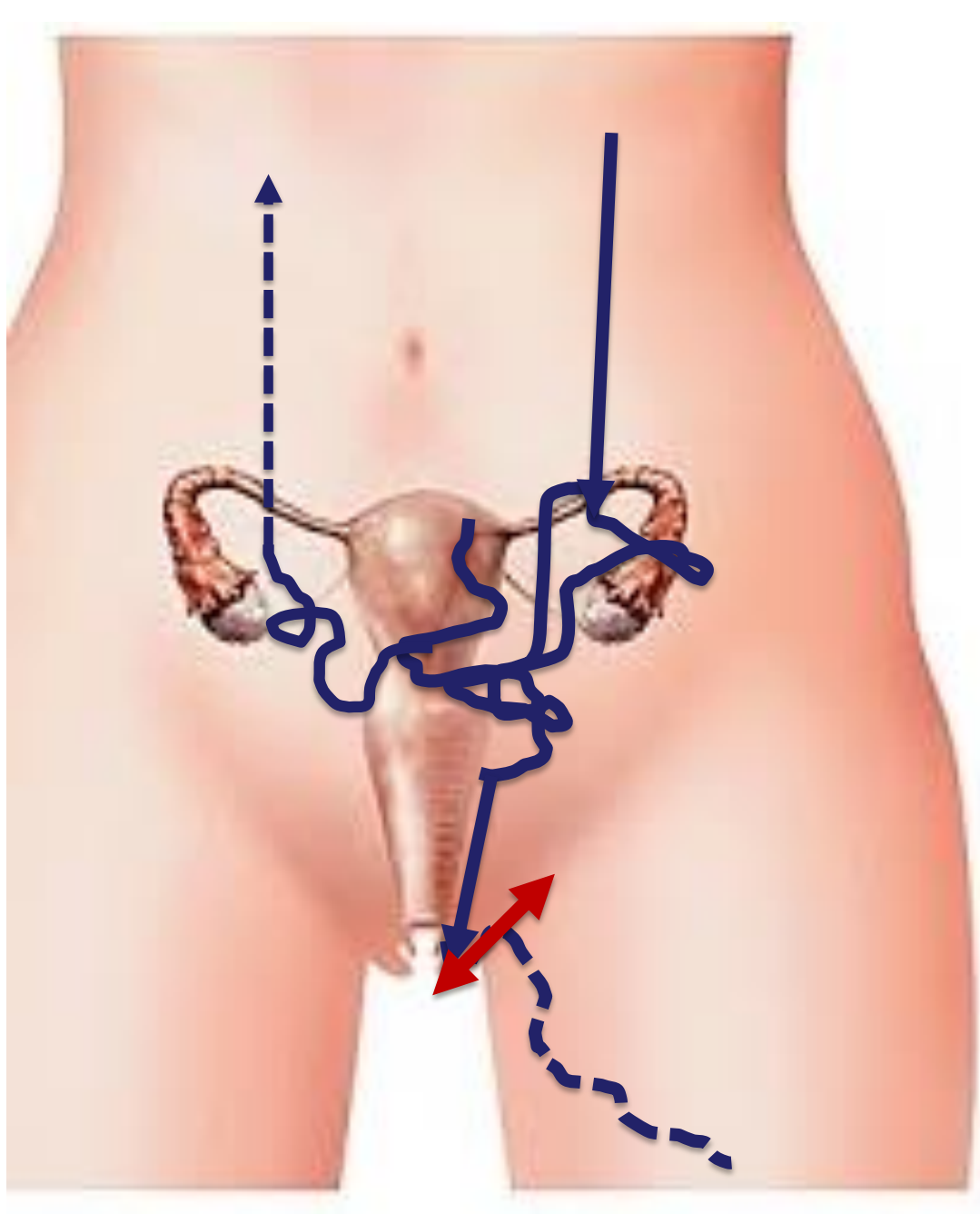


***Isolated closure of an  
effective leak point***



***lower limbs level :***

↓ varices



***Isolated closure of an  
effective leak point***

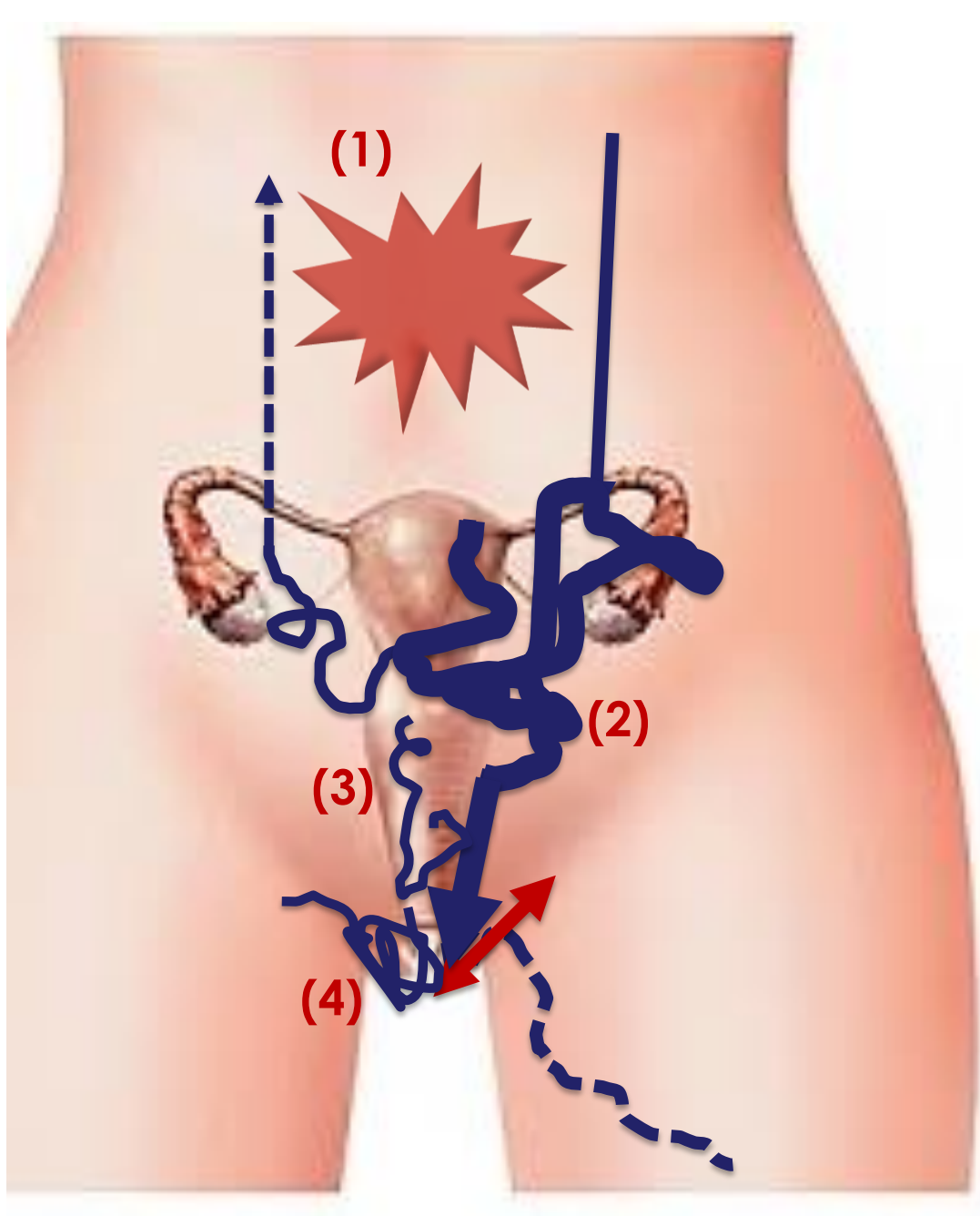
***pelvic level :***

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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