



## **My worst 2021 case**

**« AD AUGUSTA PER ANGUSTA »**

Clinique Rhône-Durance – Avignon

Cardiologie

**Jérôme BRUNET - Jean Pascal PEYRE**

# Mr MAU .... 08/09/1947

- 2010 : Standard EVAR for AAA
  - aorto bi-common iliac endograft with infra-renal fixation
  - No iliac branches devices, no hypogastric embolisation
- 2011 : Acute Left iliac limb occlusion urgently treated with a right to left Femoro-femoral bypass
- No pelvic ischemia .... but appearance **left buttock disabling claudication** during follow-up
- Seen in Rhône-Durance in 2019
- CT : no thrombotic material in the endograft main body, no lesion on right iliac, patency of the graft
- ABI : 1

OAD 26°  
CRAN 1°  
FD 42 cm

CIA occlusion

AVANT

1:67  
3:67  
15:29:41



2  
6-15

## **Diagnosis**

Left buttock claudication due to iliac and hypogastric occlusion (ILO post-EVAR)

## **Objective**

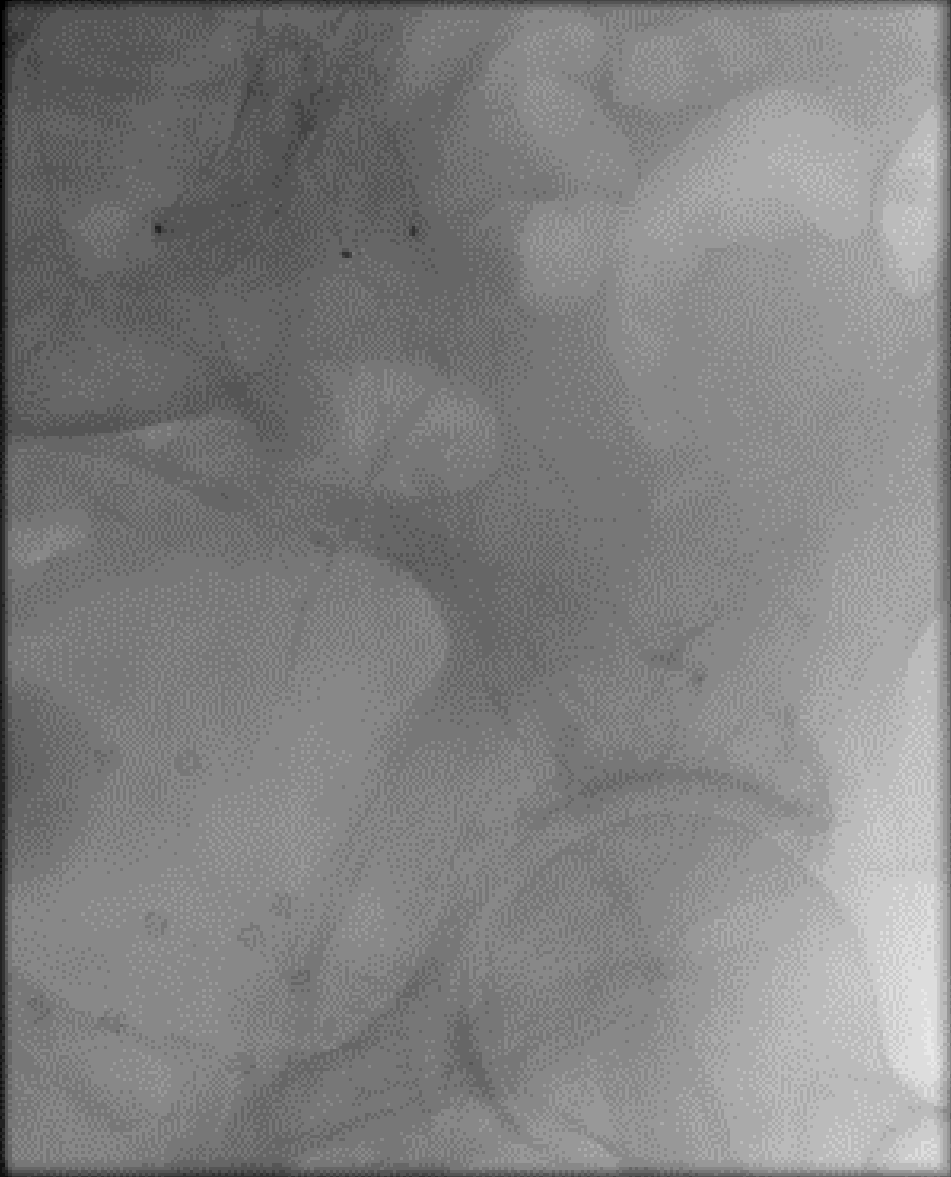
Hypogastric revascularization

## **Planned strategy**

- Left common femoral access
- Retrograde external iliac artery recanalization
- Attempt to find hypogastric ostium
- Hypogastric artery recanalization and connection to superior gluteal artery



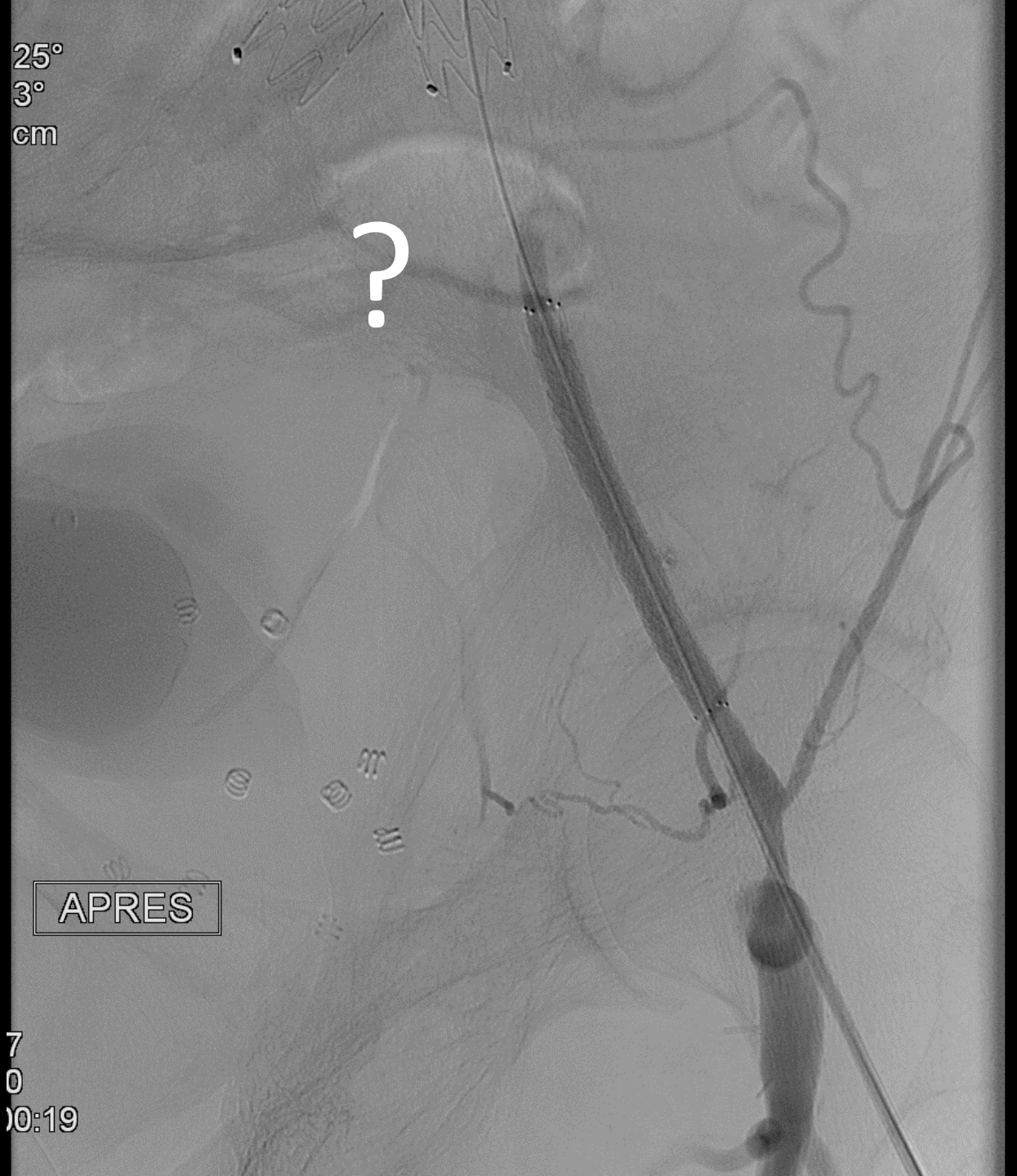
1st attempt (6Fr left femoral)  
External iliac recanalization  
Vessel rupture



1st attempt (6Fr left femoral)  
External iliac recanalization  
Vessel rupture and Failure to find hypogastric



25°  
3°  
cm



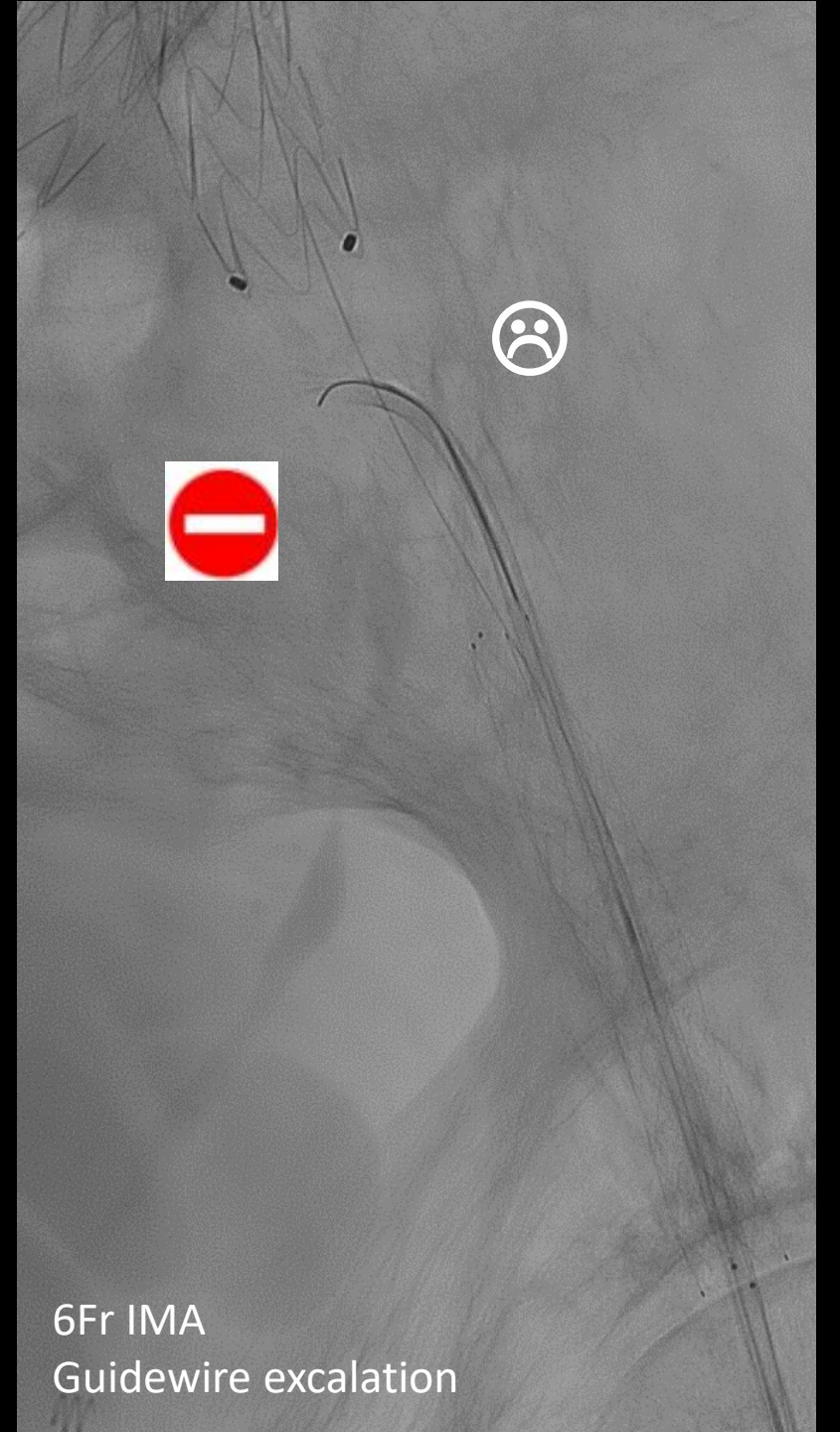
APRES

7  
0  
10:19

2<sup>nd</sup> attempt few months later ....

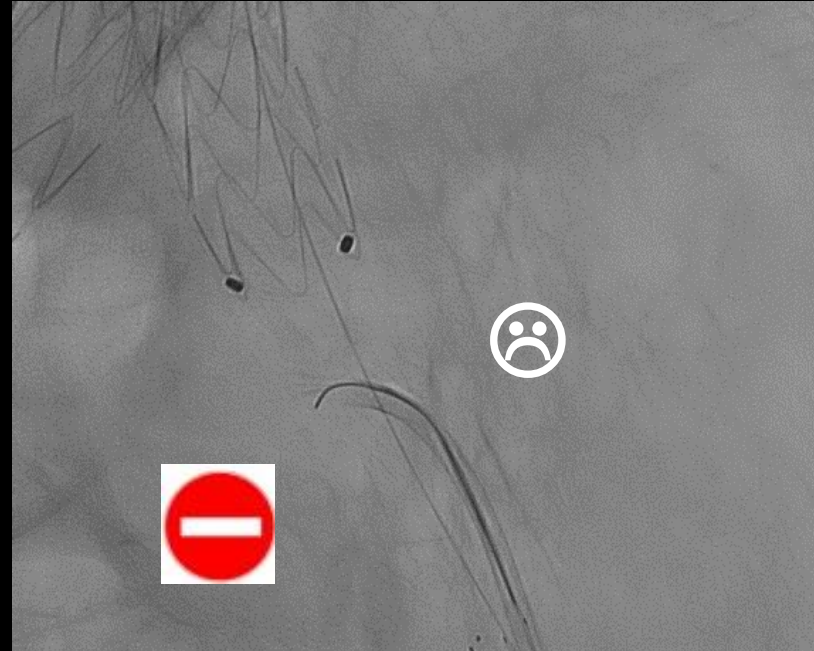




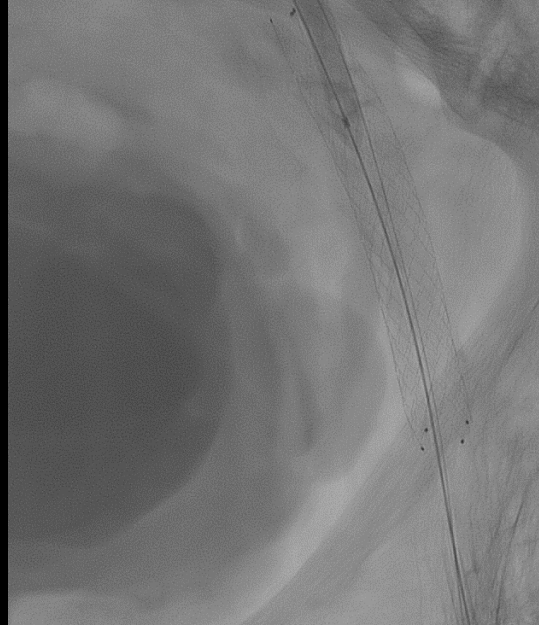


6Fr IMA  
Guidewire exhalation



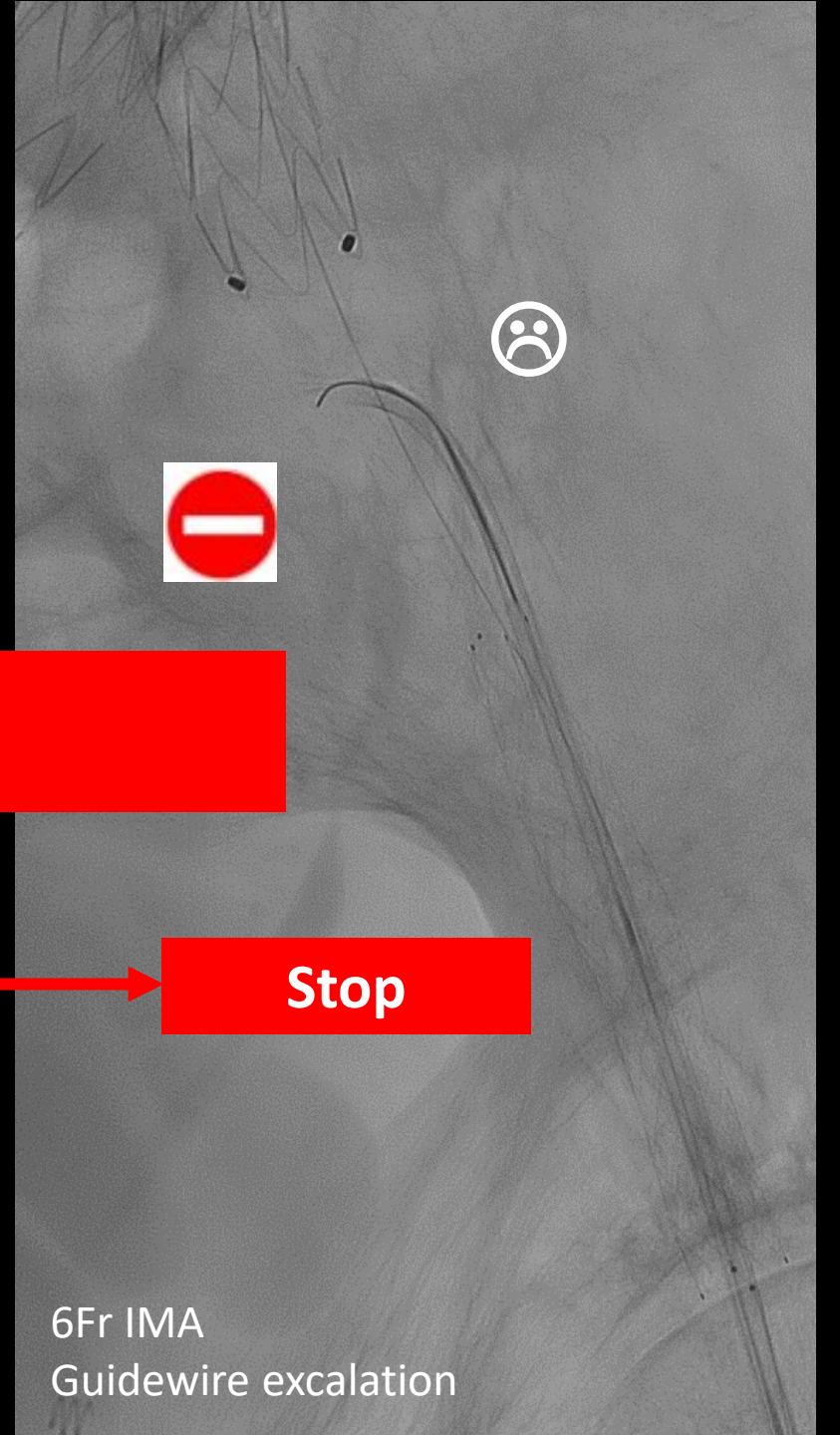


# What should i do?



6Fr IMA  
Guidewire excalation





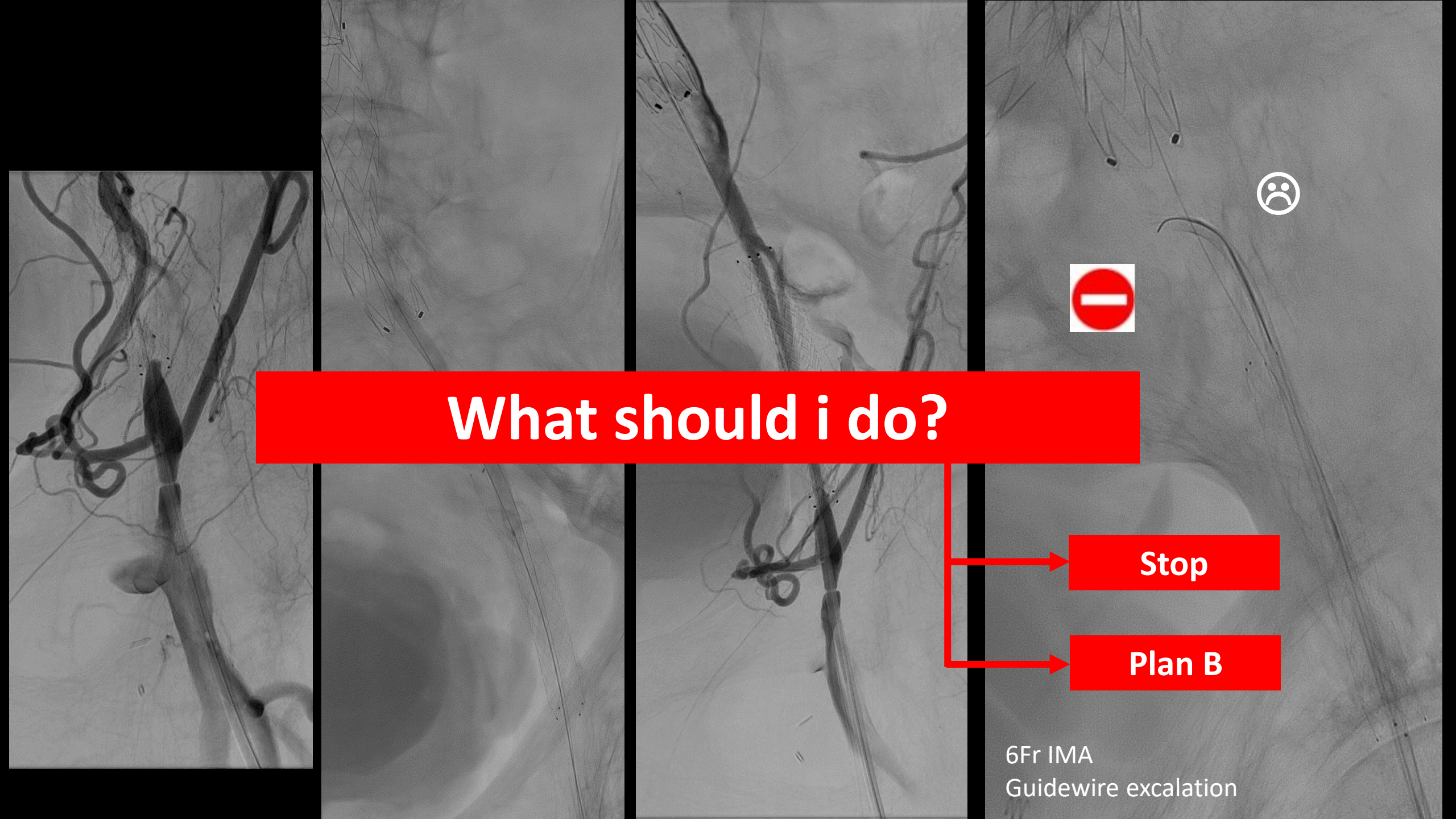
**What should i do?**



**Stop**

6Fr IMA  
Guidewire exhalation





# What should i do?



→ **Stop**

→ **Plan B**

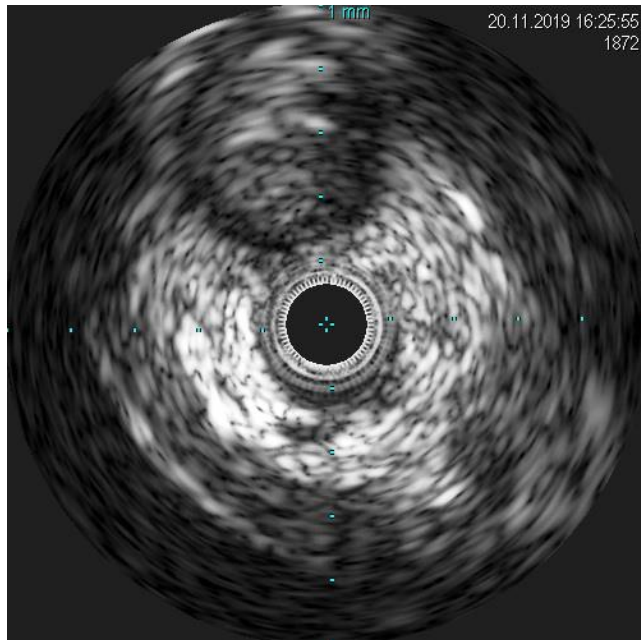
6Fr IMA  
Guidewire excalation



# Crossing failure : plan « B »

## B1 : Anterograde crossing

Proximal cap puncture  
IVUS guidance



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### B2 : Retrograde crossing



# Crossing failure : plan « B »

## B1 : Anterograde crossing

Proximal cap puncture  
IVUS guidance

## B2 : Retrograde crossing

Via retrograde puncture



CASE REPORT

## Unusual Access for the Treatment of Iliac Artery Aneurysm in Association with Type II Endoleak After Endovascular Repair of an Aortoiliac Aneurysm

Rohit Philip Thomas<sup>1</sup> · Martin Köcher<sup>2</sup> · Marie Černa<sup>2</sup> · Petr Utikal<sup>3</sup>

EJVES Vascular Forum (2021) 51, 1–4

CASE REPORT

### Off Label Use of StarClose for Superior Gluteal Artery Puncture Closure Following Embolisation of an Internal Iliac Artery Type II Endoleak

Evan Norris<sup>\*</sup>, Brian Bronzo, Olufoladare Olorunsola

California Pacific Medical Center, Interventional Radiology, San Francisco, CA, USA

## VASCULAR IMAGES

### Direct puncture of superior gluteal artery using a Doppler ultrasound-guided needle to access jailed internal iliac artery aneurysm

Wai Kin Chi, MBChB, and Bryan P. Yan, MBBS, MD, FRACP, FACC, Hong Kong Special Administrative Region, People's Republic of China

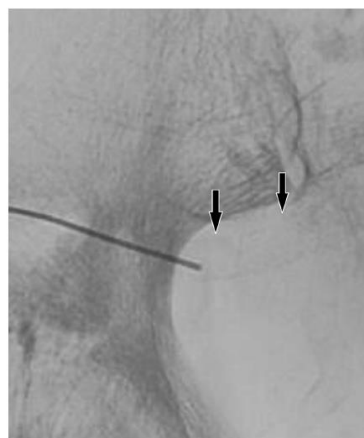
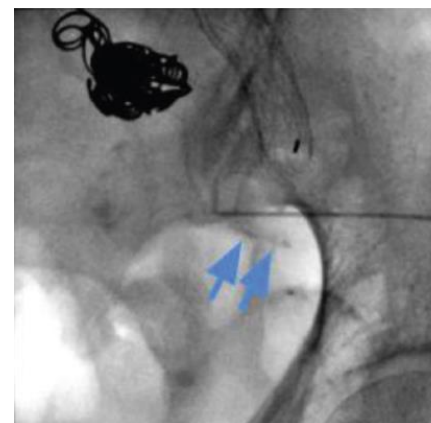


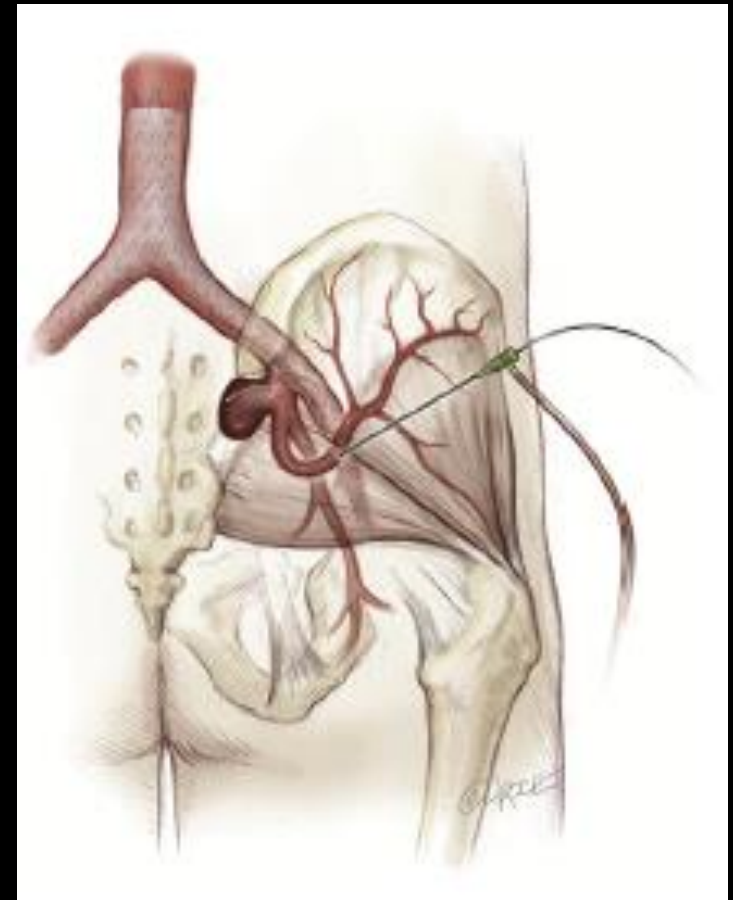
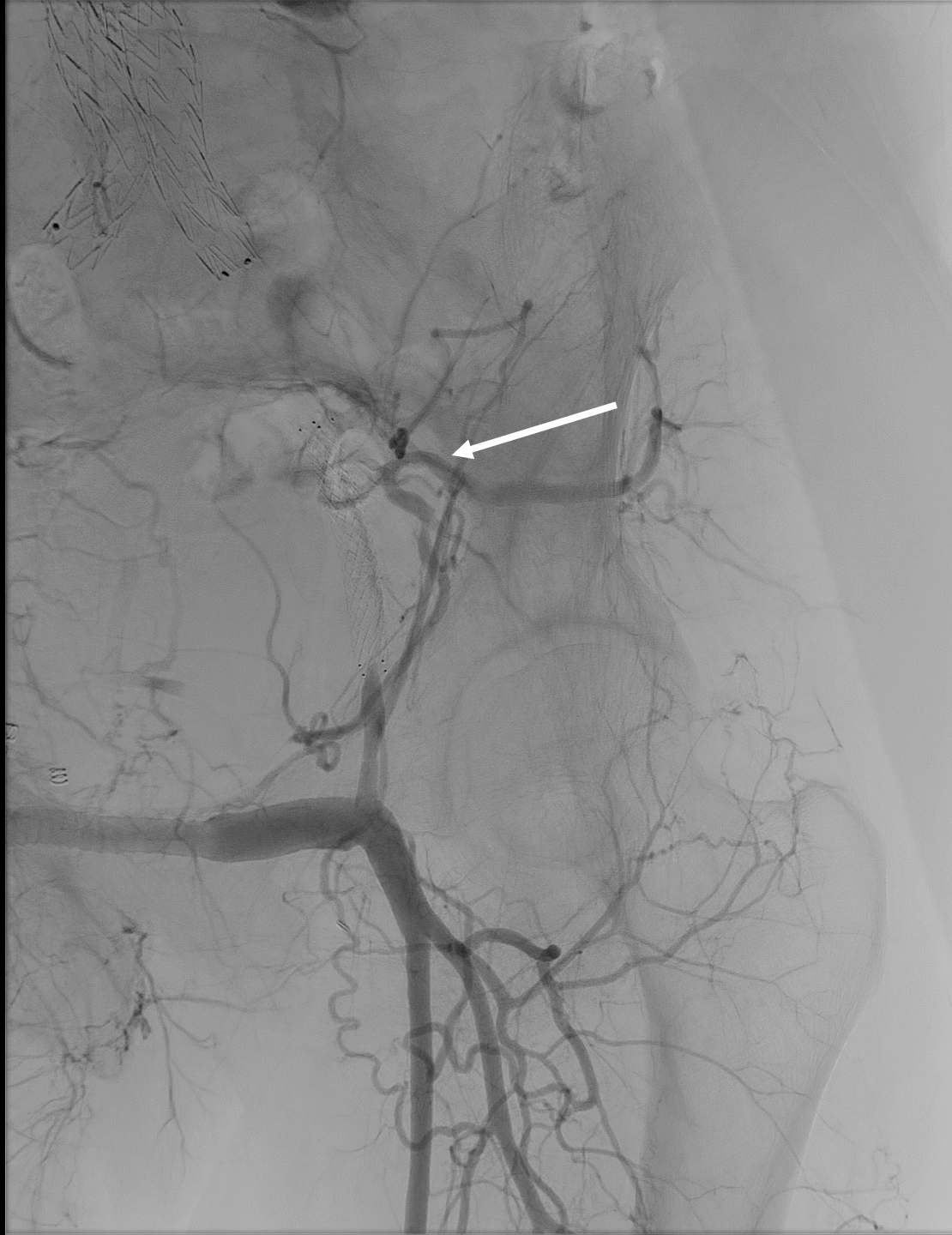
Fig. 2 Fluoroscopy during the superior gluteal artery (SGA) puncture showing wall calcification





Prone position for superior gluteal artery retrograd puncture

But left brachial and left femoral sheath already in place : not very « ergonomic » for rendez vous



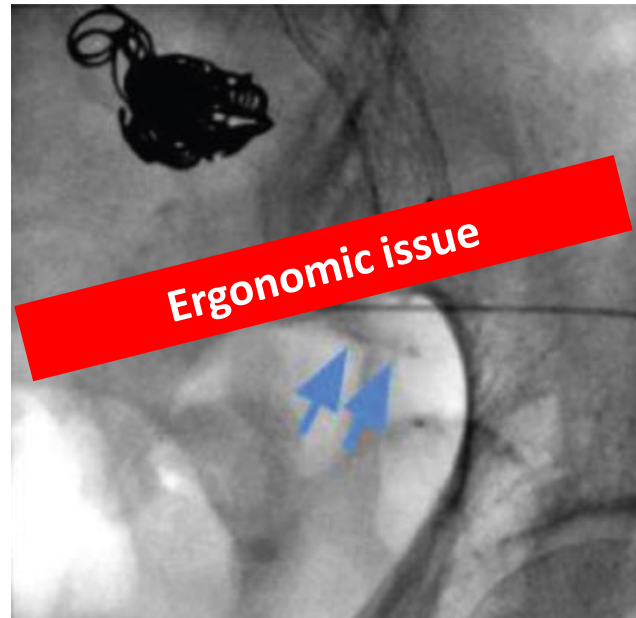
# Crossing failure : plan « B »

## B1 : Anterograde crossing

Proximal cap puncture  
IVUS guidance

## B2 : Retrograde crossing

Via retrograde puncture





# Crossing failure : plan « B »

## B1 : Anterograde crossing

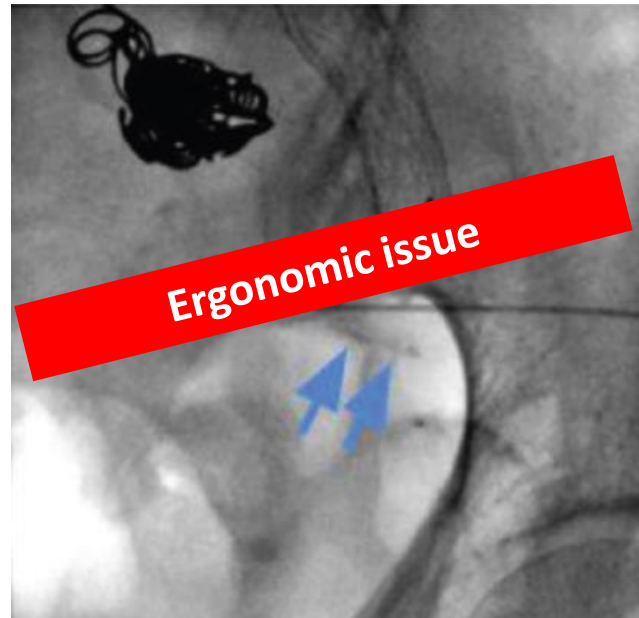
Proximal cap puncture  
IVUS guidance



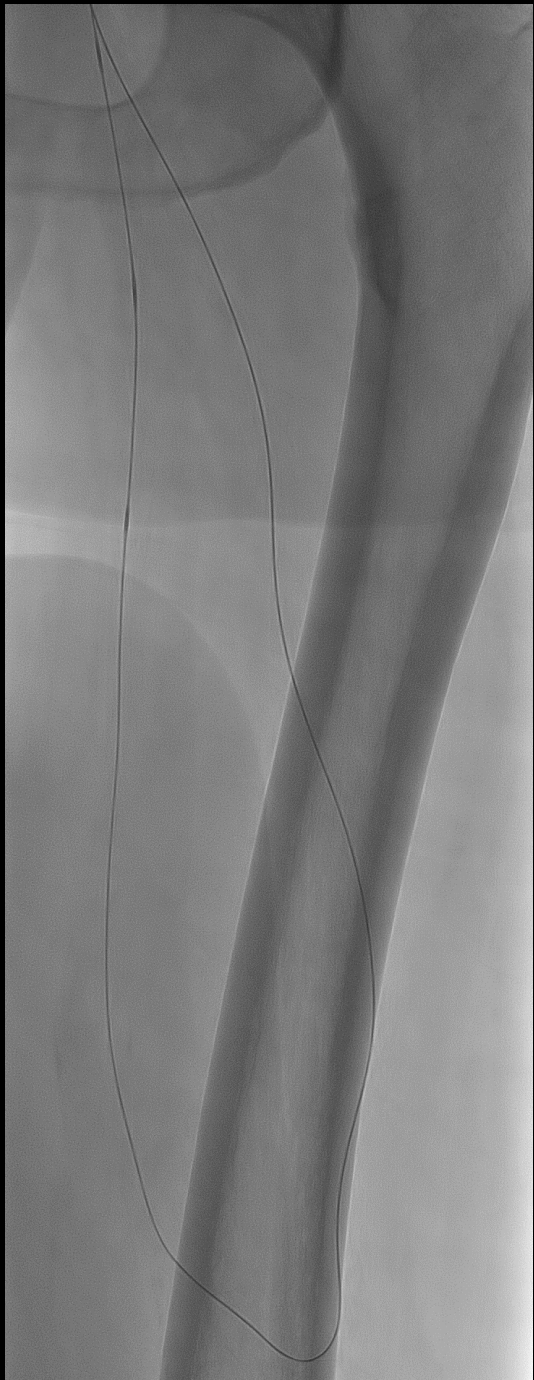
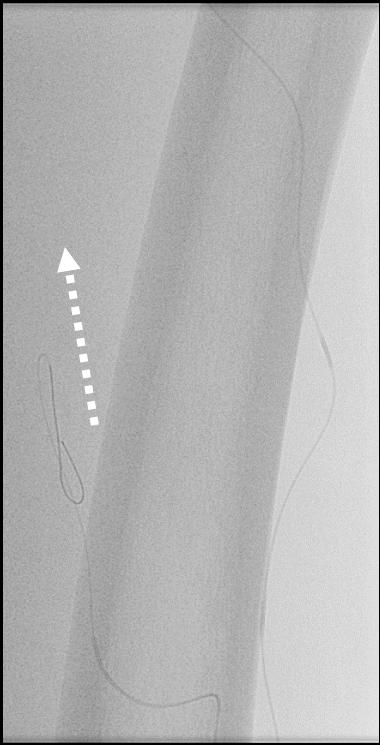
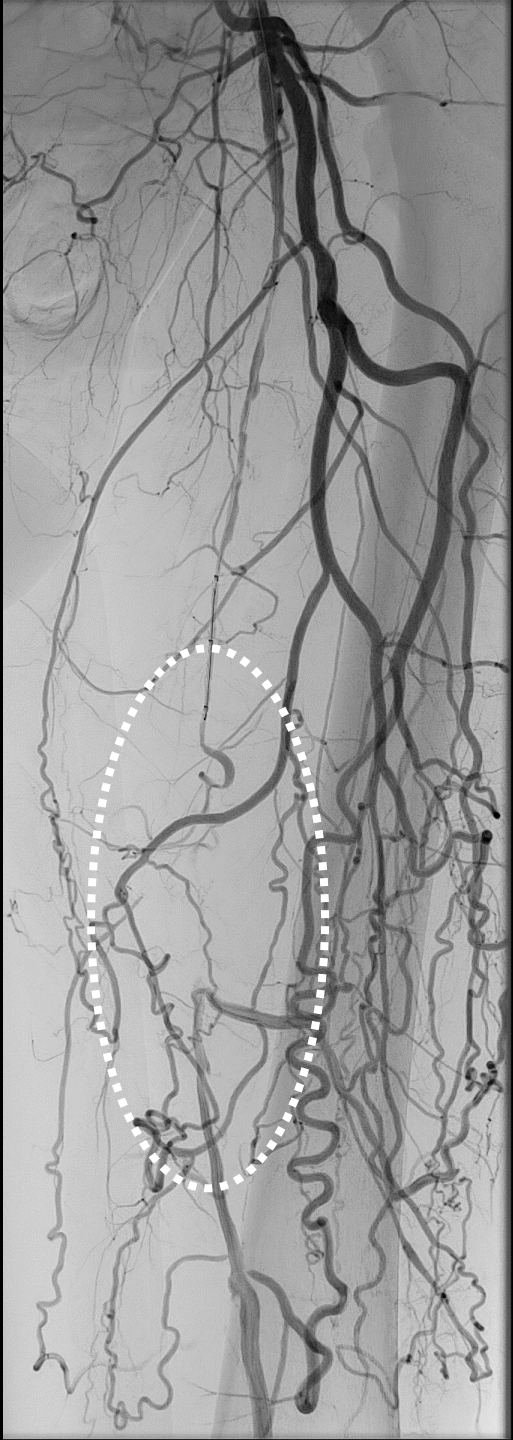
## B2 : Retrograde crossing

Via retrograde puncture

Via trans collateral



Classic in btk procedure  
Less usual in SFA procedure



# Crossing failure : plan « B »

## B1 : Anterograde crossing

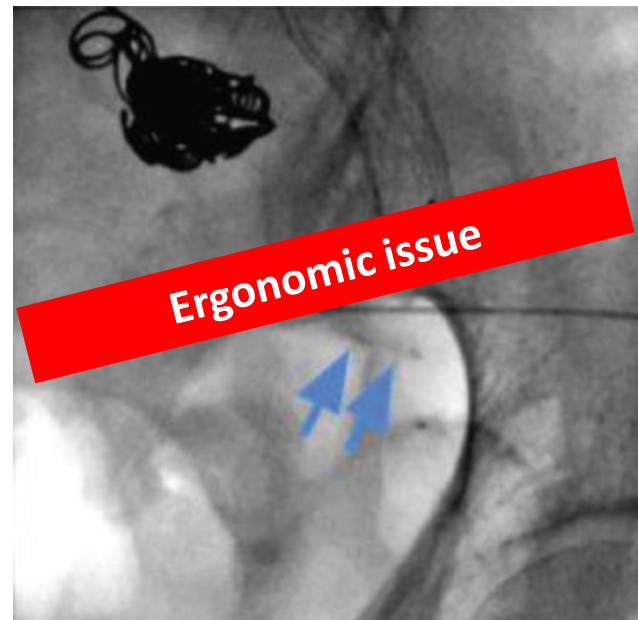
Proximal cap puncture  
IVUS guidance



## B2 : Retrograde crossing

Via retrograde puncture

Via trans collateral

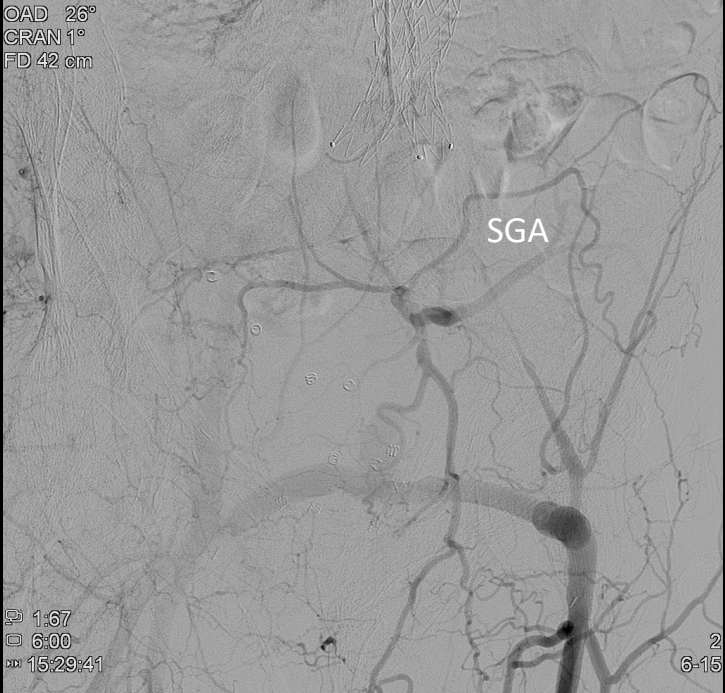


Pedal-plantar loop  
BTK  
SFA

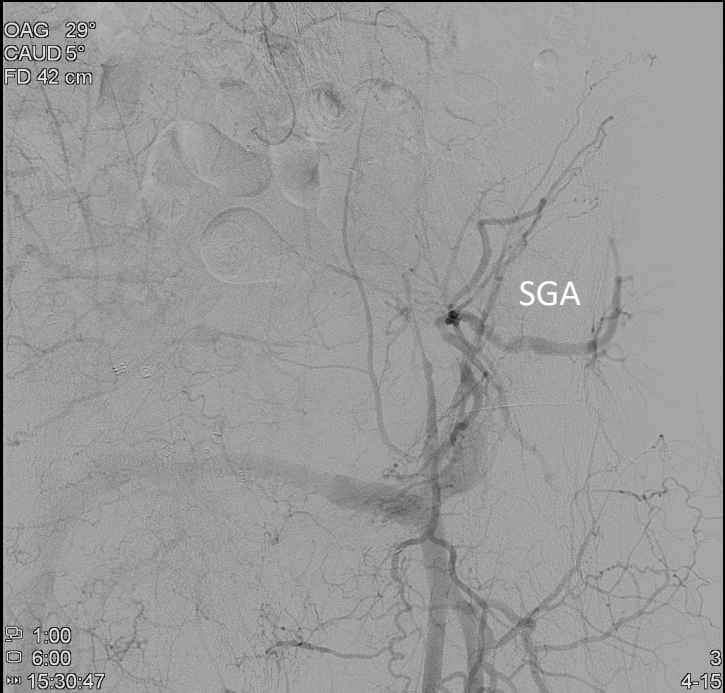
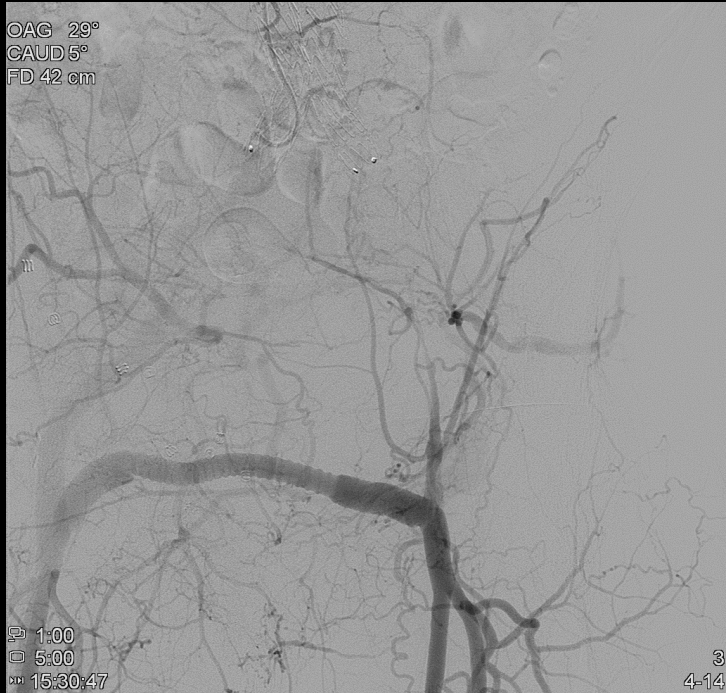
... but what about in pelvic district?



**RAO**



**LAO**





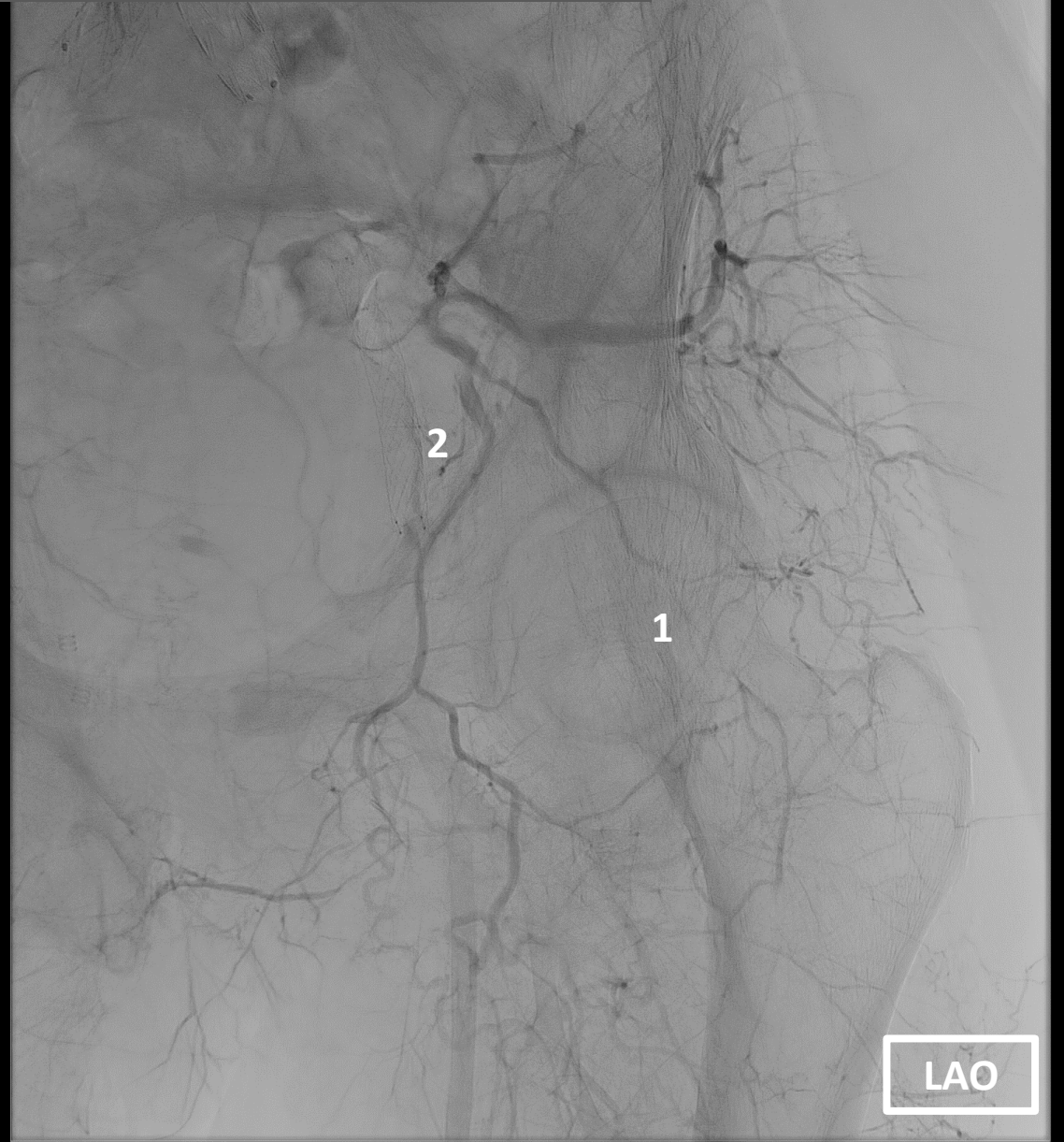
**Retrograd trans-collateral connexion with hypogastric branches**

1 : via circumflex and inferior gluteal artery

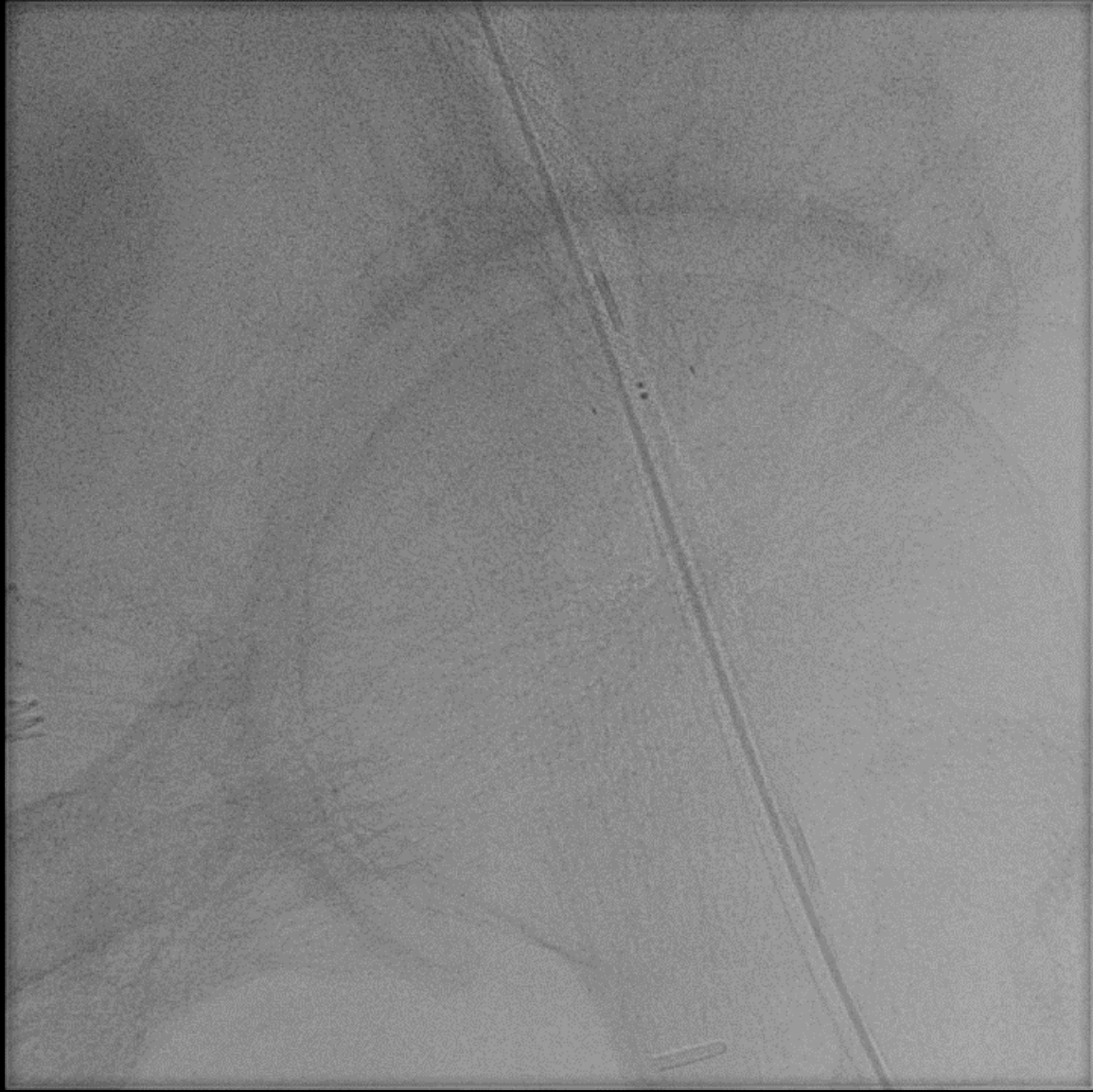
2: via external pudendal artery



LAO



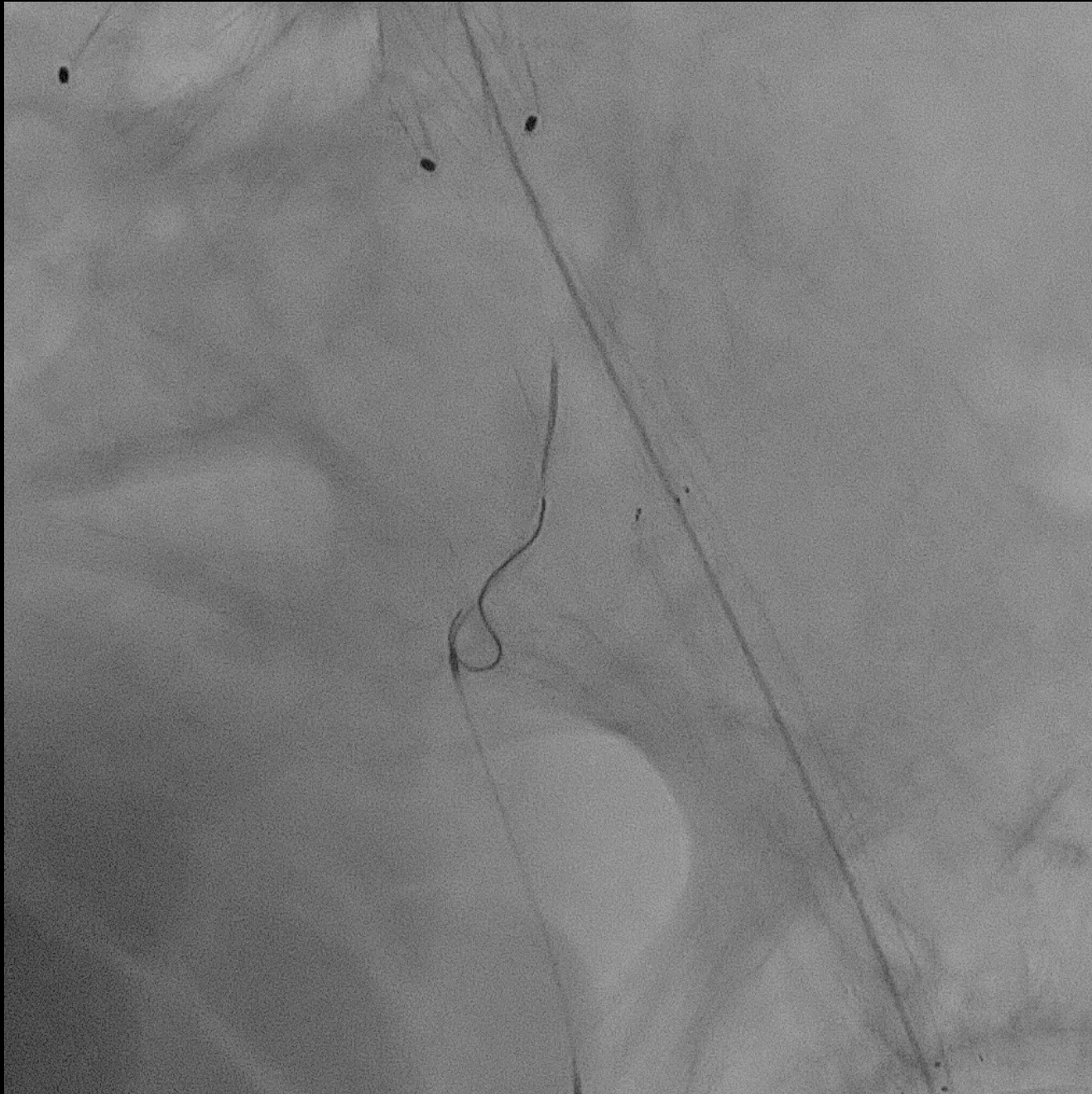
LAO



**Anterograd 0,018 Sargent Support catheter via left iliac occlusion (brachial access, 5Fr 120 cm sheath)**

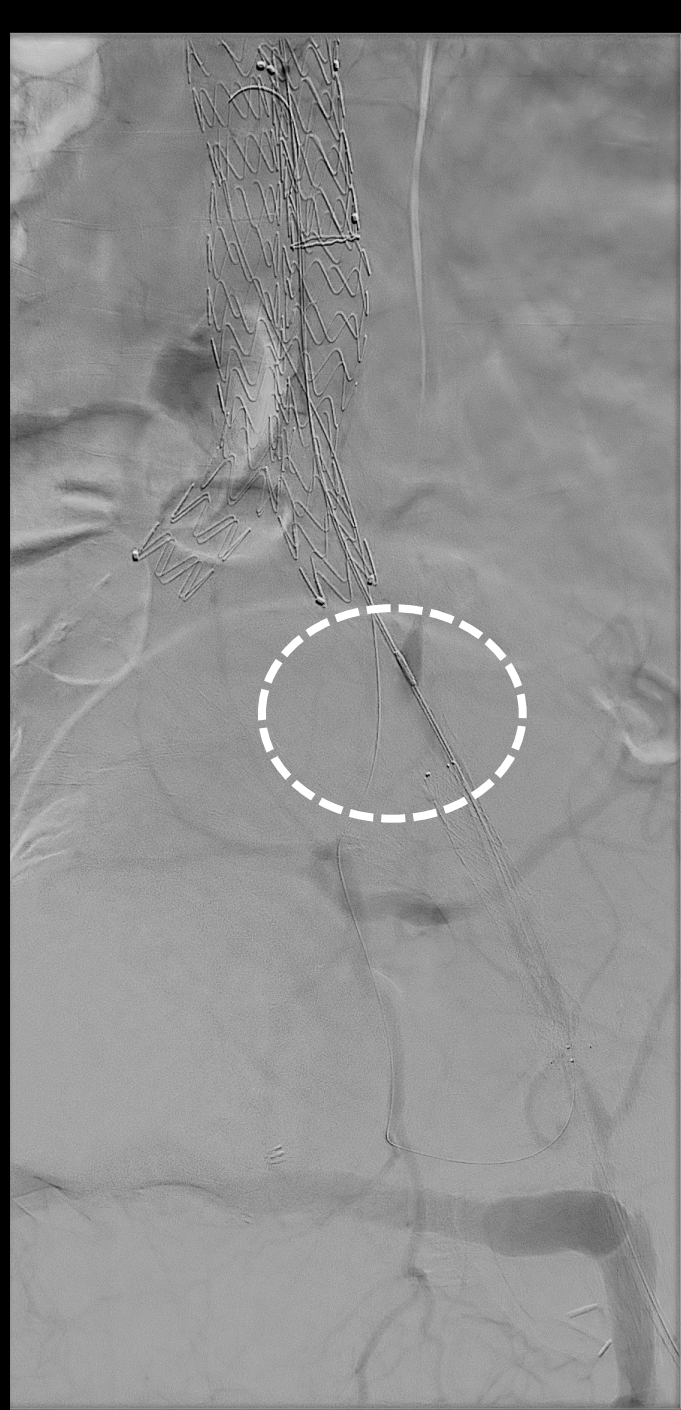






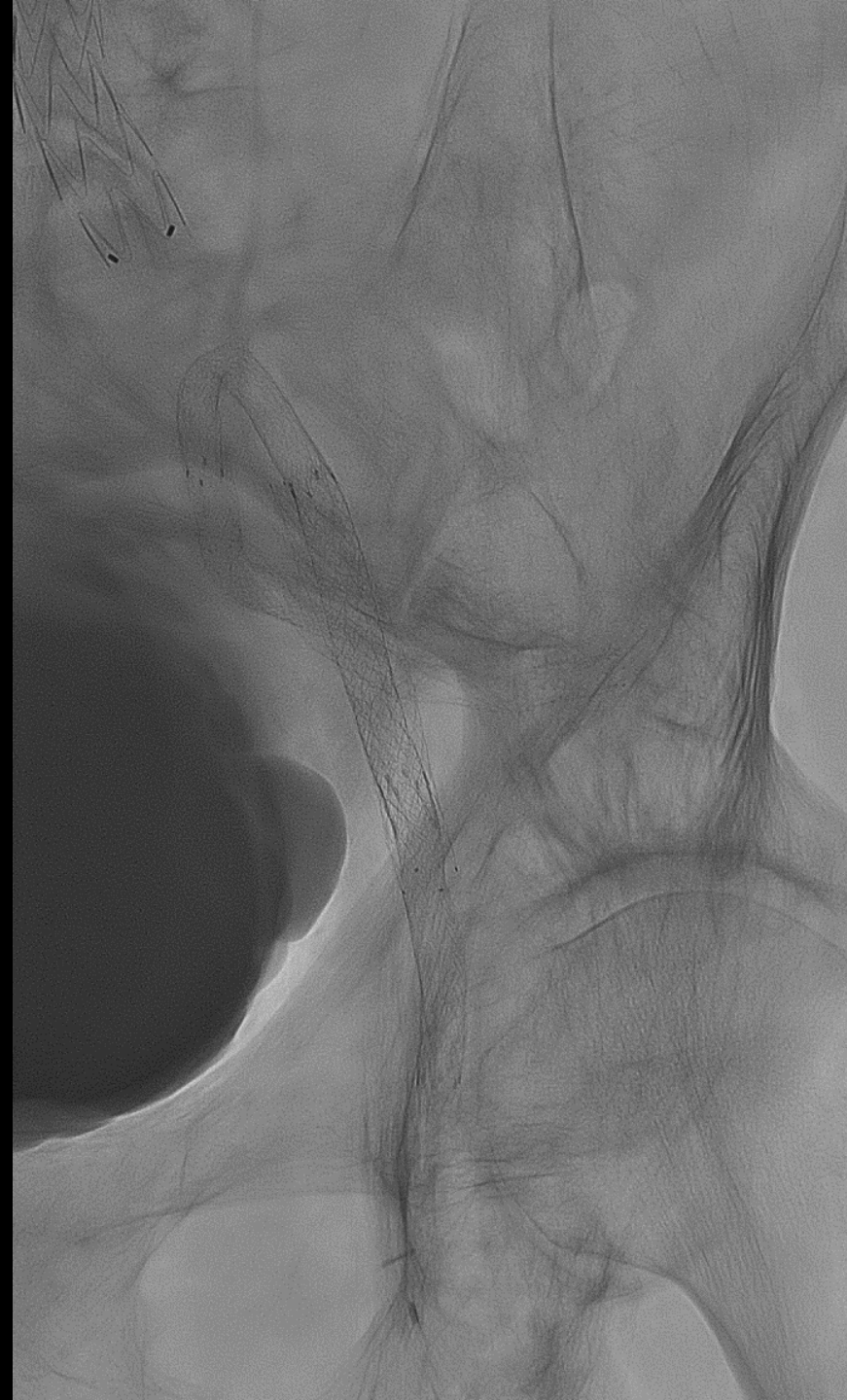
Externalization of retrograde hypogastric guidewire via brachial access require a 150cm-shaft support catheter (135cm was too short)

Exchange for 0,014 150cm Sergeant catheter and 0,014 Command ES 300cm guidewire



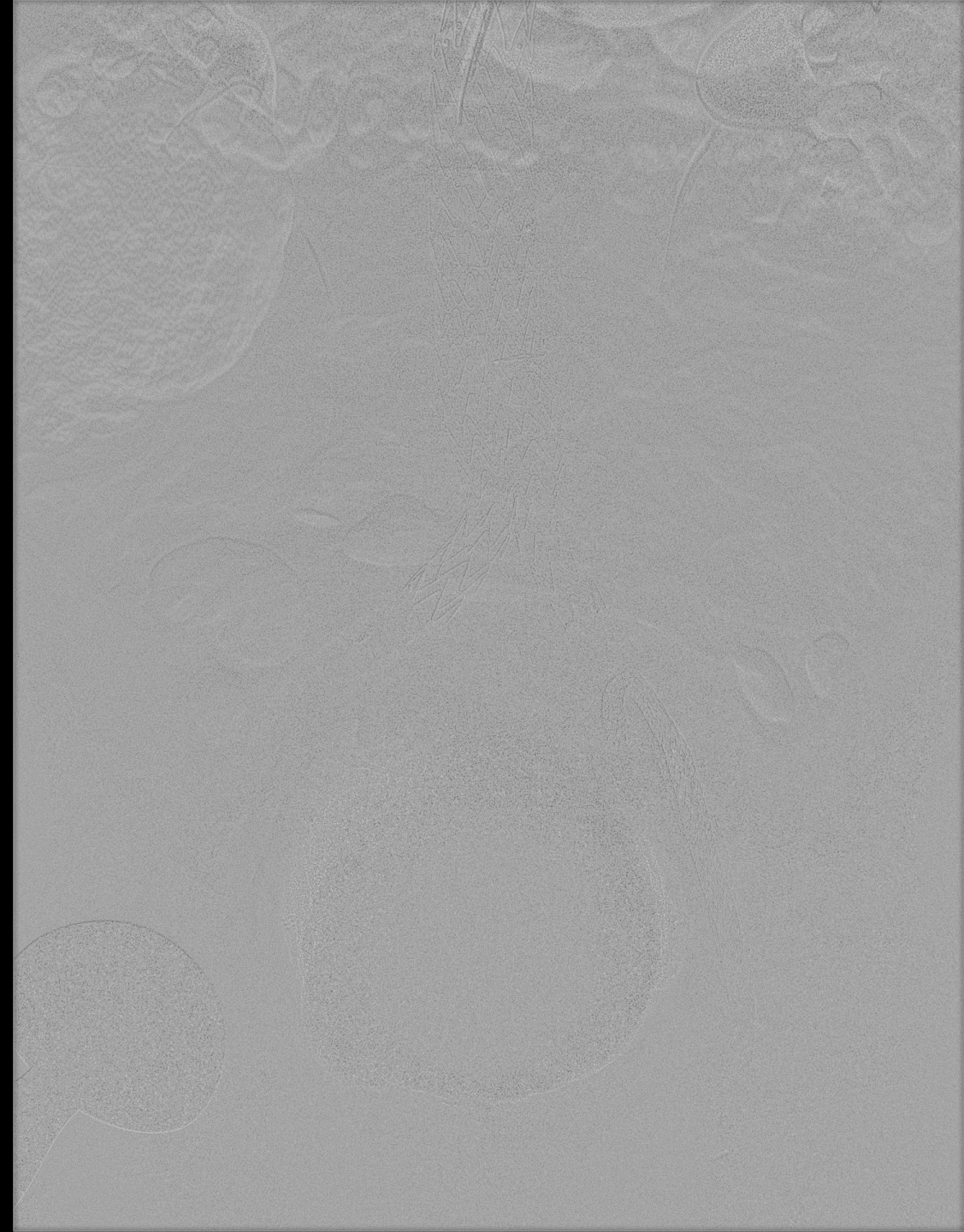


6mm Viabahn  
graft-stent to  
avoid endoleak





**APRES PTA**





## Conclusion

- Successive nightmares in the same case
  1. **Acute thrombosis** (iliac limb occlusion post EVAR)
  2. **Vessel rupture** (external iliac predilatation)
  3. **Crossing failure** (hypogastric occlusion)
- Complex hypogastric recanalization cases : usefulness of precise analysis of **hypogastric posterior and anterior division branches** for retrograde plan  
« B » strategy after antegrade failure