

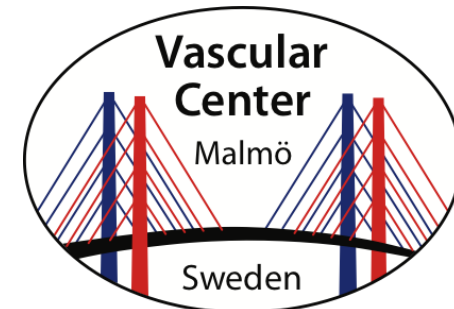
All these iliac branch devices – which one should I choose?

Nuno Dias

26th Critical Issues in Aortic Endografting
Malmö, 2024-03-21



LUND
UNIVERSITY



Disclosures

- Proctor, IP, Research collaboration and/or Speaker:
 - Cook Medical
 - Angiodroid
 - Boston Scientific
 - Gore
 - Medtronic
 - Siemens Healthneers

Commercially Available Iliac Branch Grafts

Cook ZBIS



Gore IBE



JOTEC E-iliac



Lifetech IBD
ongoing trial in China

Commercially Available Iliac Branch Grafts

	<u>Cook</u>	<u>Gore</u>	<u>JOTEC</u>
Prox diam	12	23	14-18
Common Iliac Length	45-61	55	41-53-65
Distal diam	10-12	10-14.5	10-14
External Iliac Length	41-58	45	44-56
Introducer Profile (Fr)	20 ID	16 OD	18 OD
Internal Iliac Branch Diam	8 stent / 7 rings	13	8

Pros & Cons – Off-the-shelf Iliac Branch devices

- Pros

- Known results

- Technical success: > 95 %
 - Patency 91-98 % @ 5 yrs

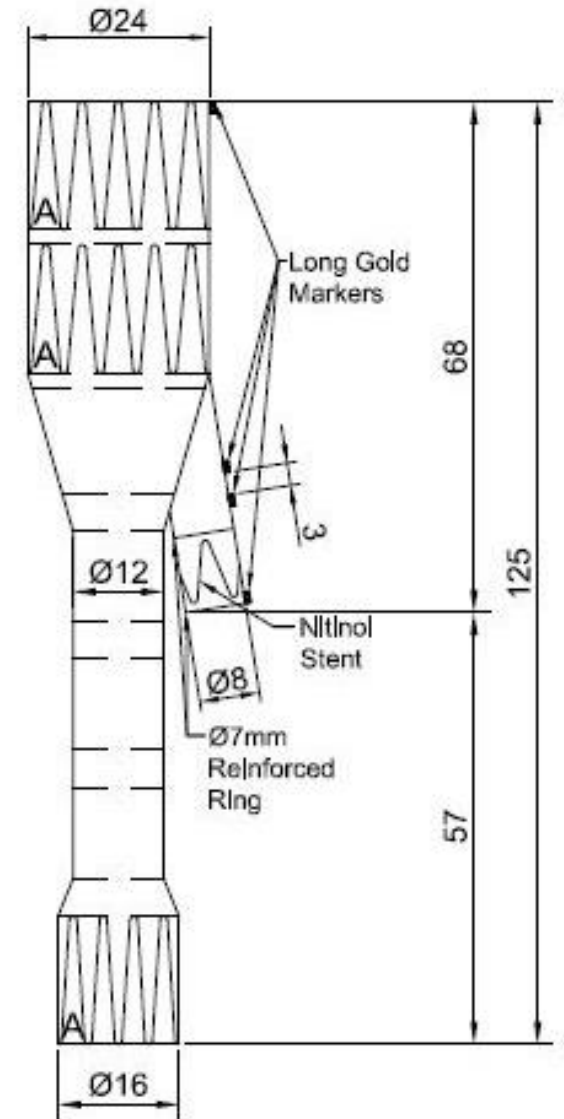
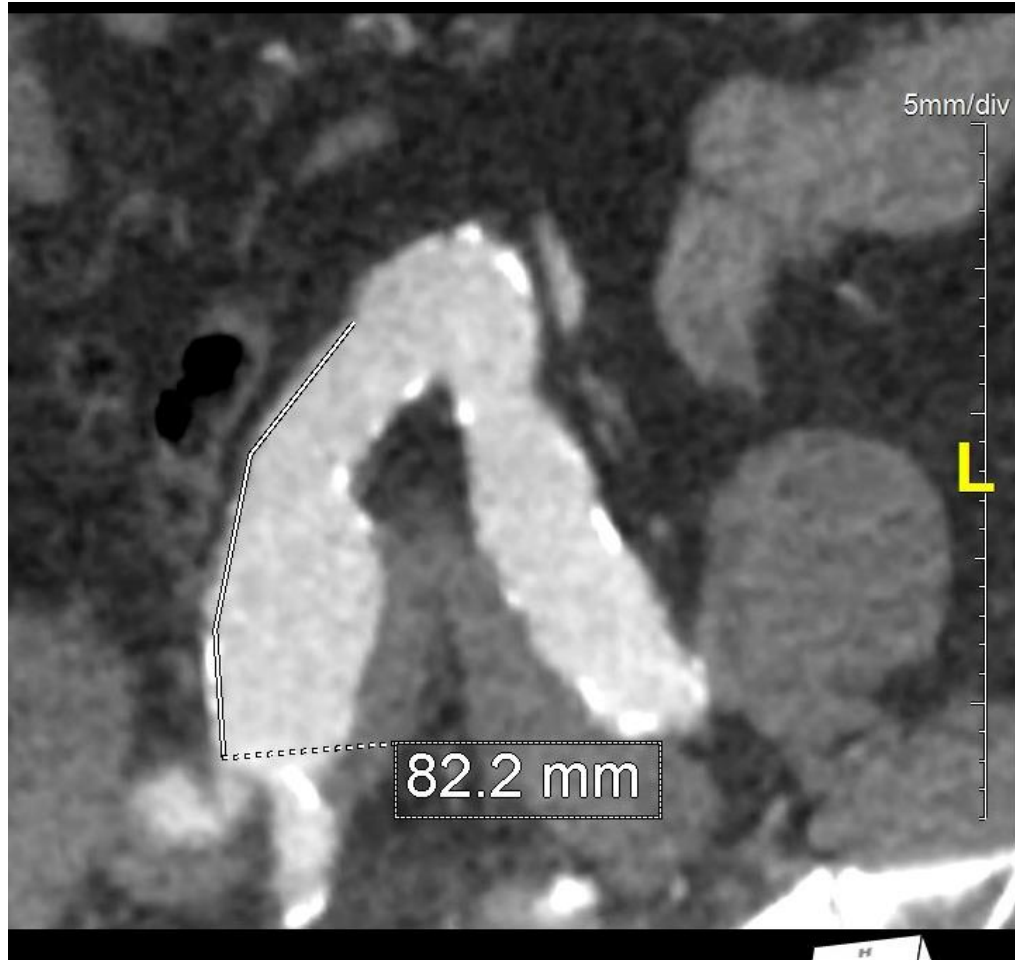
- Readily available

- Fitting most of the anatomies

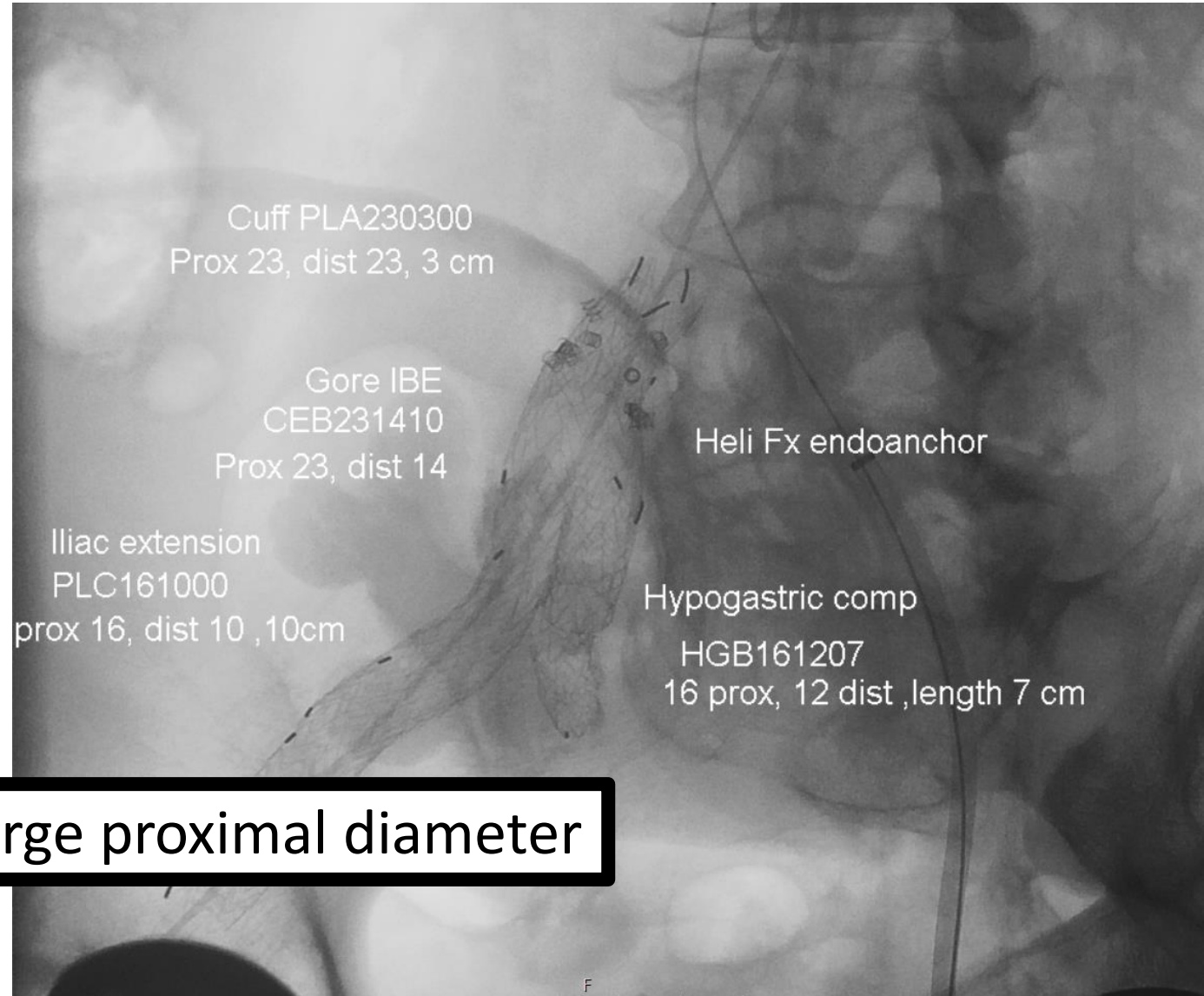
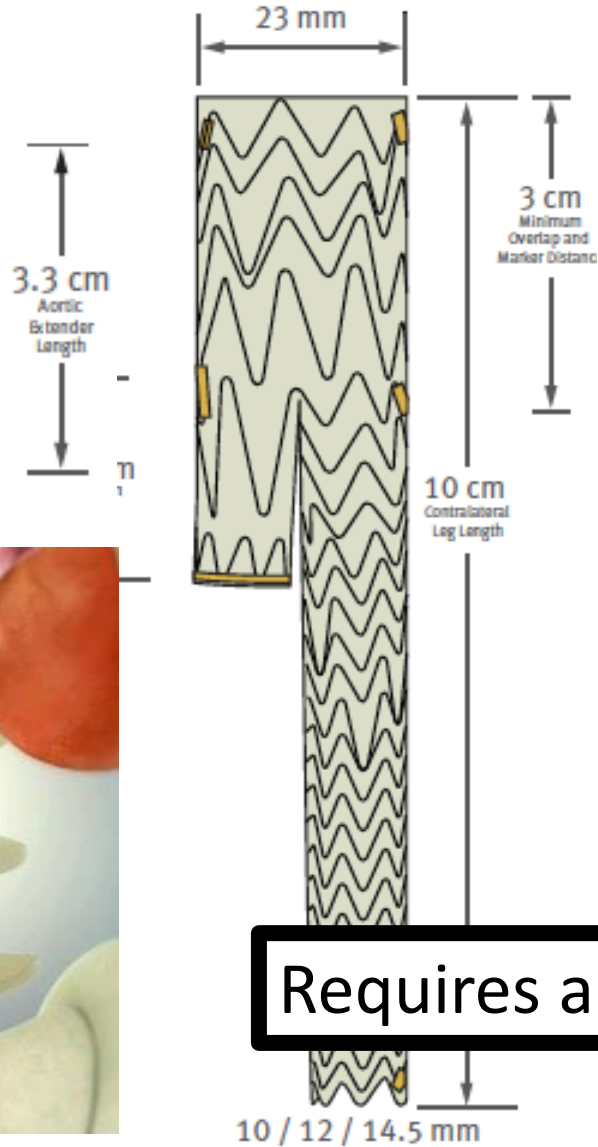
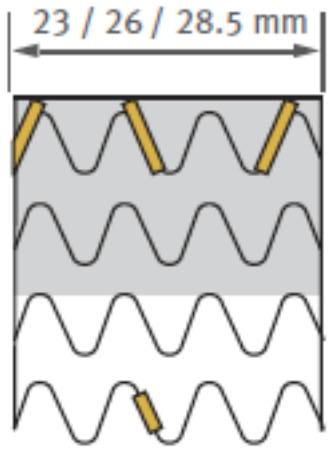
- Cons

- Not all anatomies...

Isolated Iliac Aneurysms

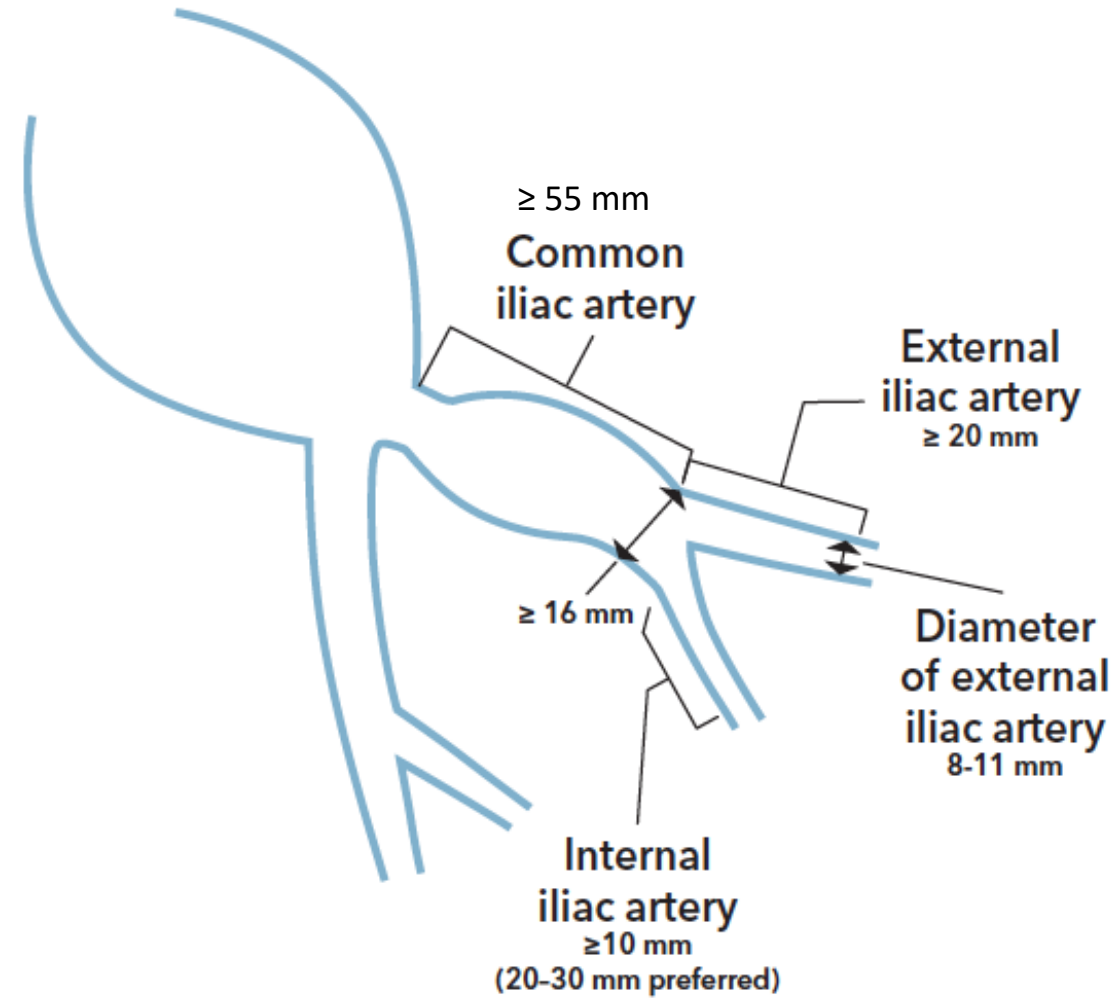


Isolated Iliac Aneurysms



Requires a large proximal diameter

IBD – Strict IFU



Anatomical Suitability for IBD

- 38 % compatible with Cook IFU

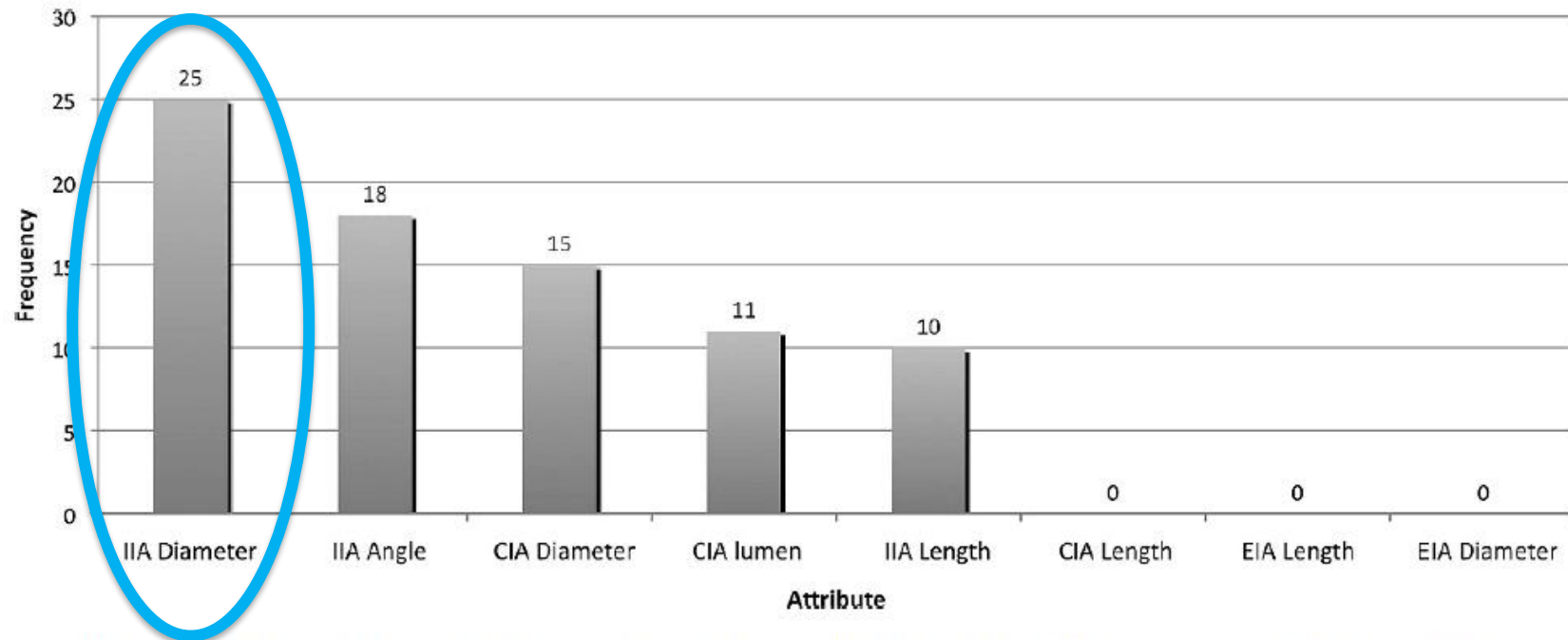


Figure 1 ♦ Frequency of adverse morphological features for IBD use according to criteria published by experienced vascular surgeons.

Non-restrictive IFU for IBD

- 40.9 % according IFU
- 58 % in house protocol

Table 3. In house protocol.

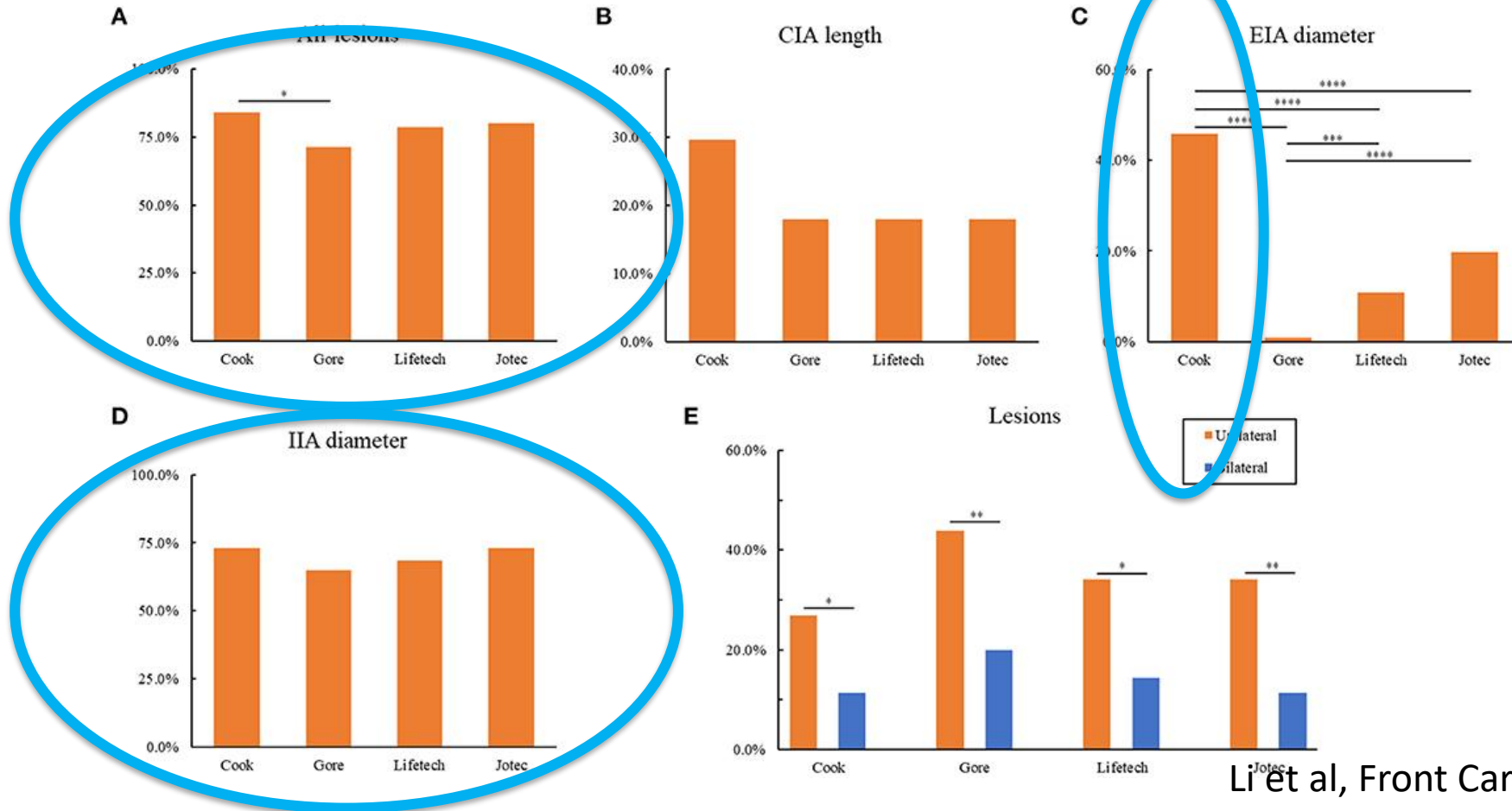
Usage indications	Relative contraindications	Absolute contraindications
CIA length > 40 mm	Heavy iliac kinking	Aneurysmal IIA with no landing zone in the main or distal branch
CIA lumen D > 18 mm	wide iliac bifurcation angle	
distal IIA length > 10 mm + D < 11 mm		
EIA adequate landing zone		

Note. CIA = common iliac artery; IIA = internal iliac artery; EIA = external iliac artery; D = diameter.

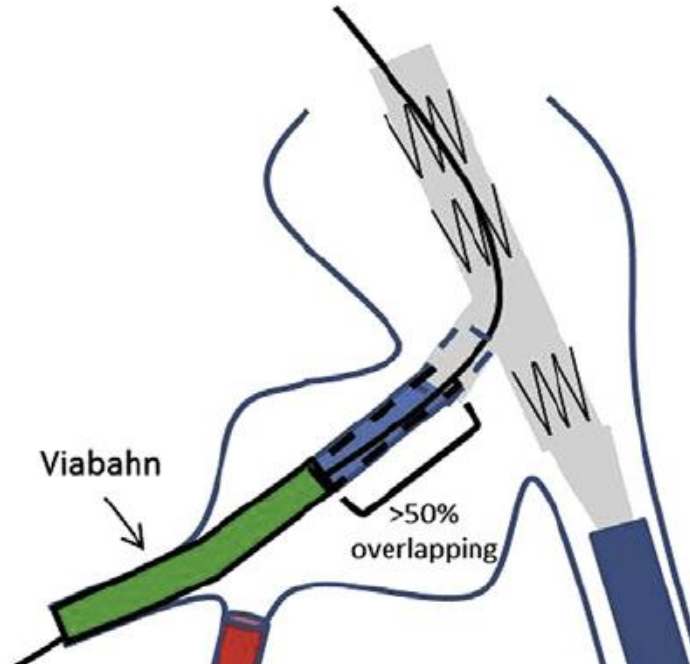
Anatomic Applicability for IBD in China

Low Applicability rate rate: 16.2 - 28.8 %

Reasons for exclusion



Extending anatomical suitability

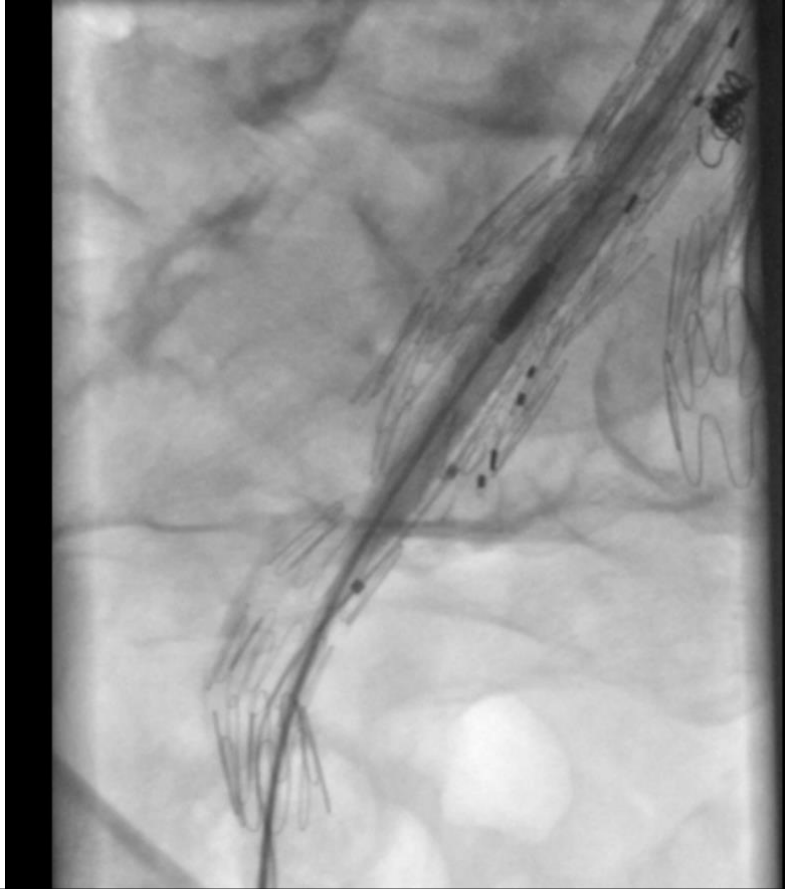


Can be done with all IBDs

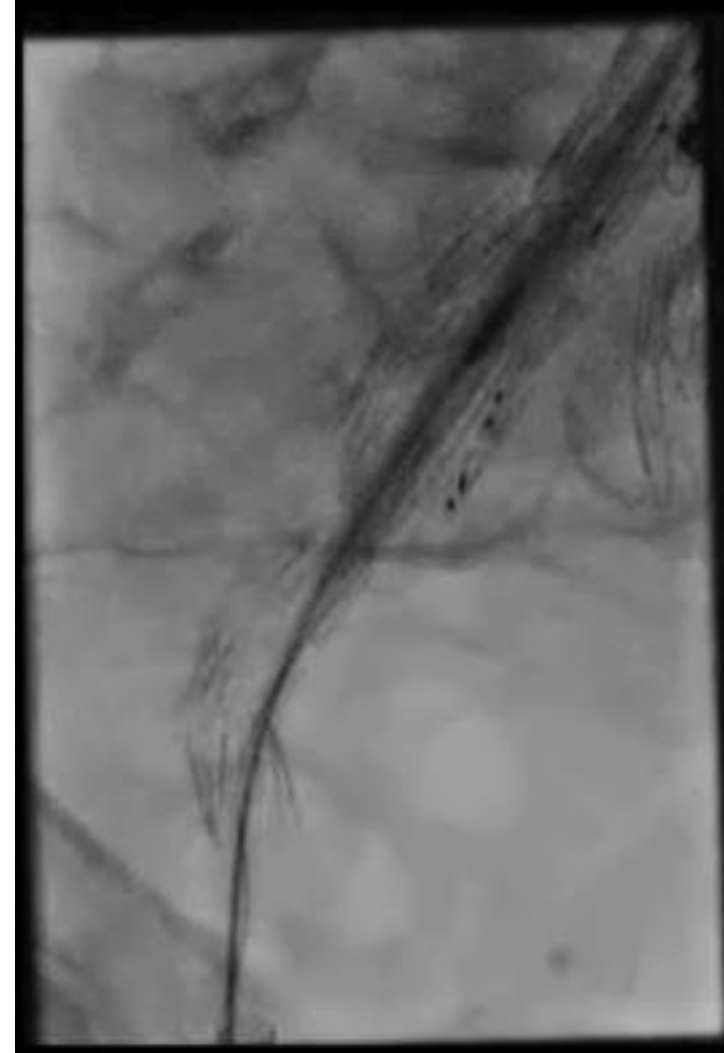
- Technical success rate 100 %
- Primary patency 95.3 %
- Assisted patency 100 %

If the proximal EIA is stenotic

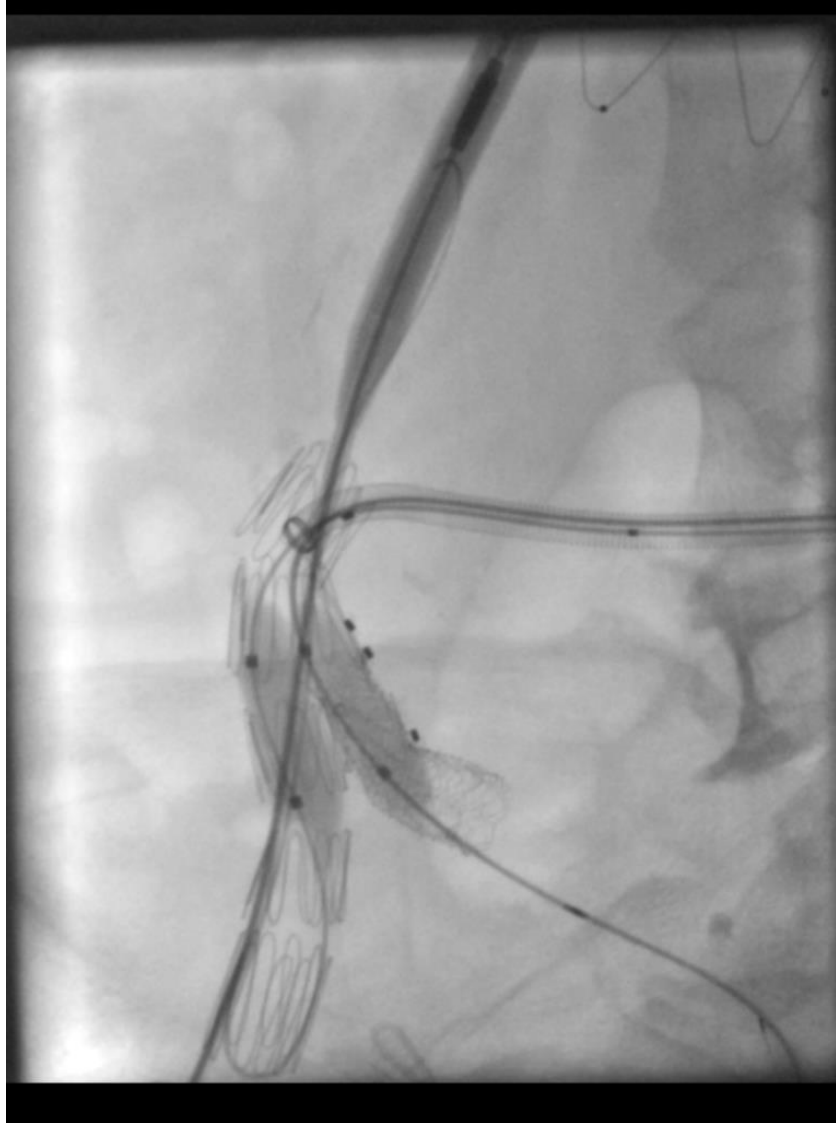
And it recoils...



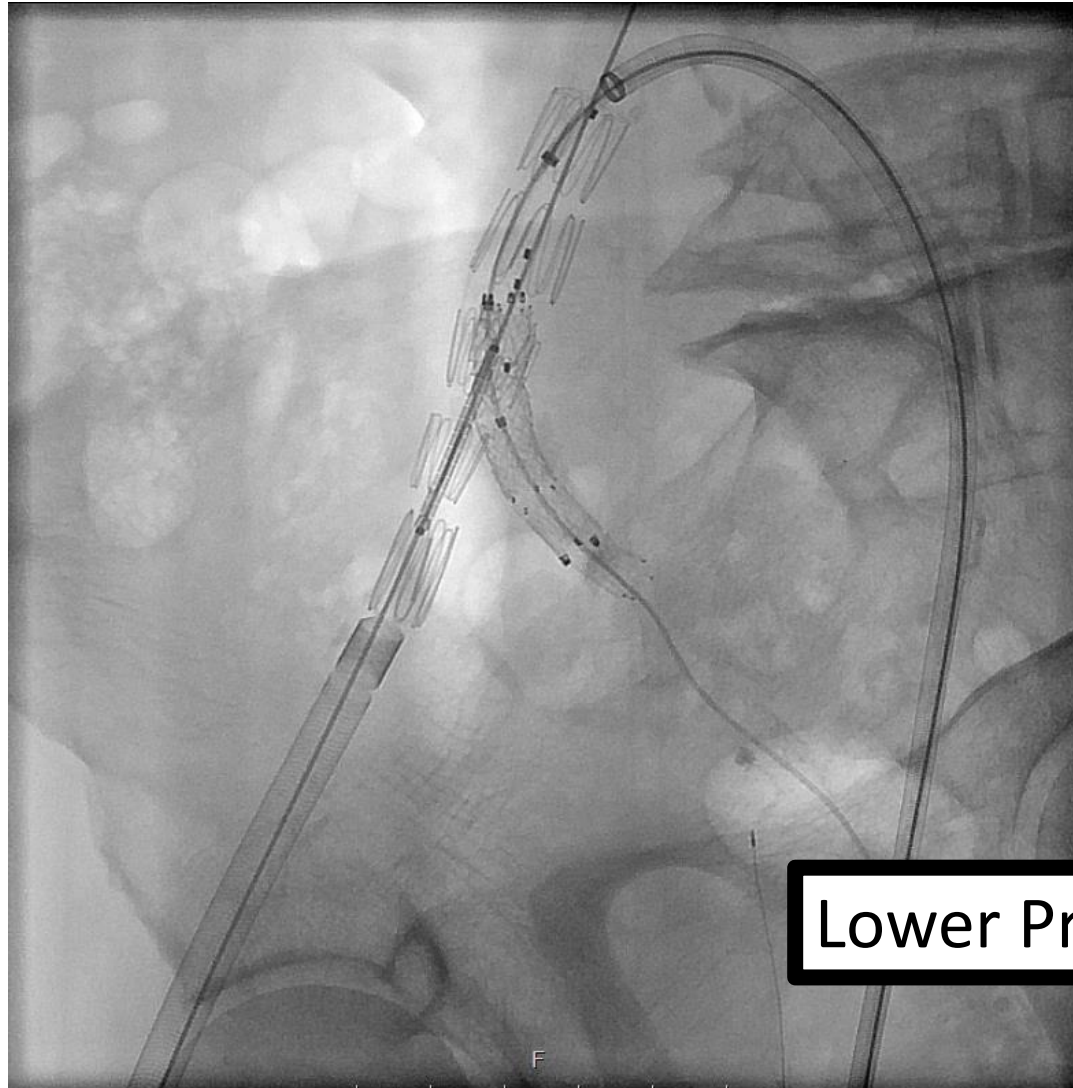
Not able to retrieve the system...



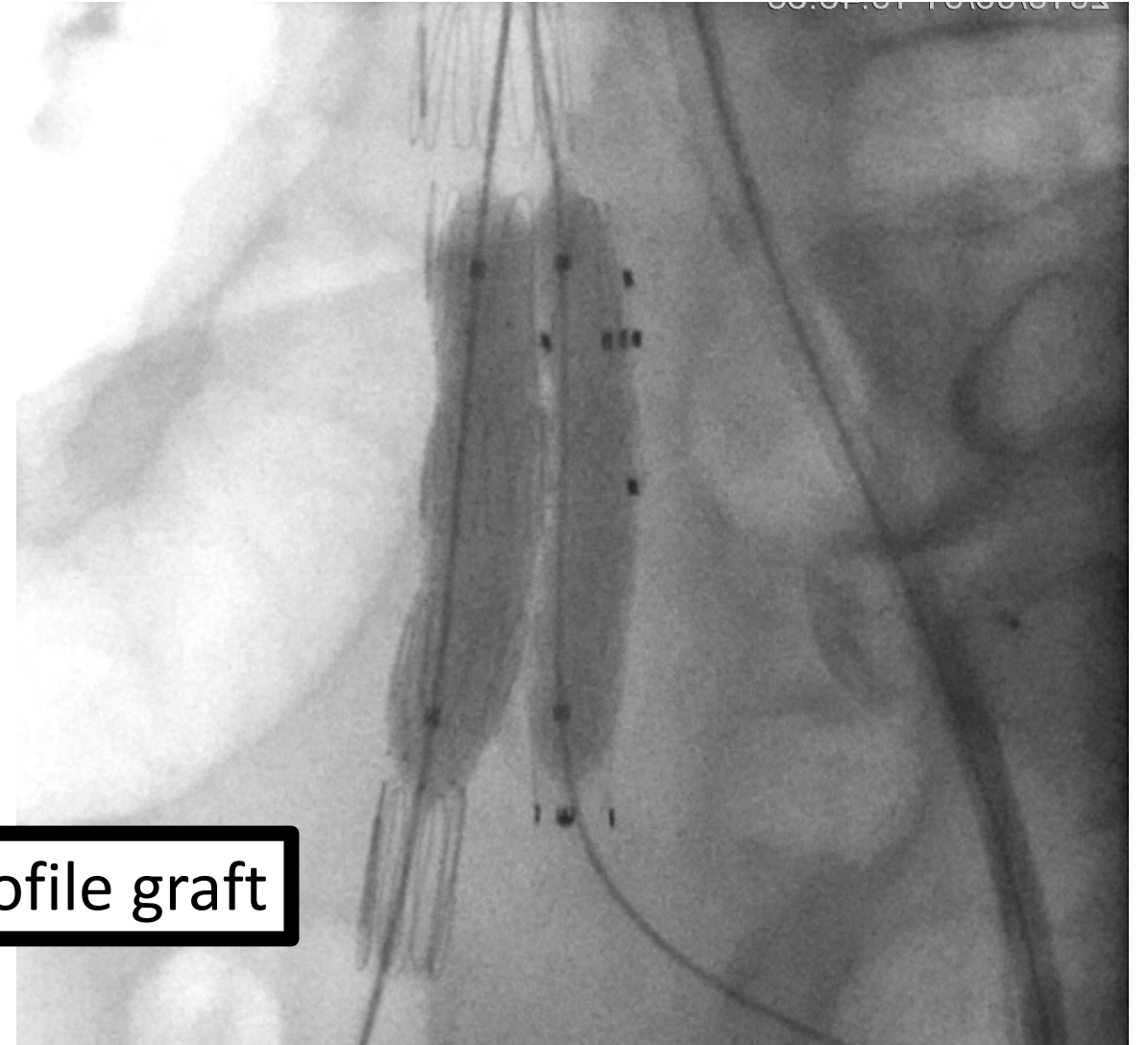
If the proximal EIA is stenotic



If the external is stenotic

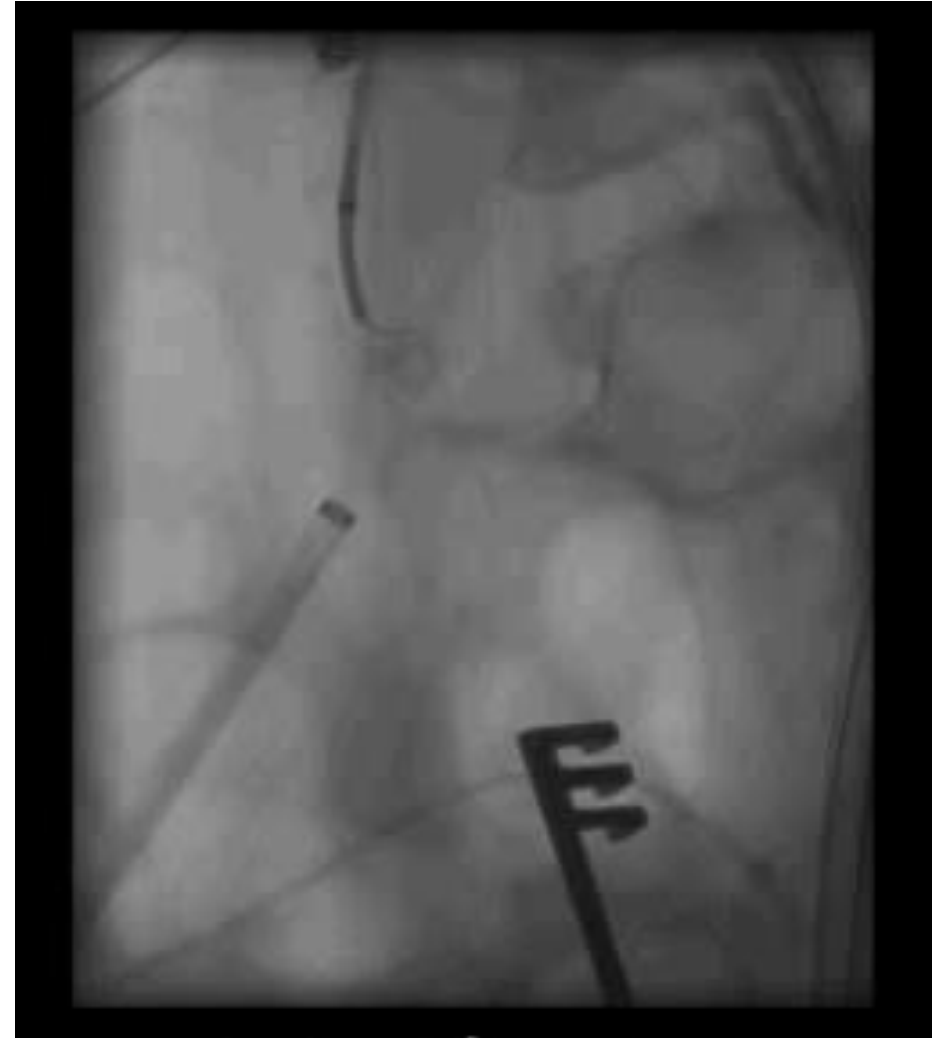
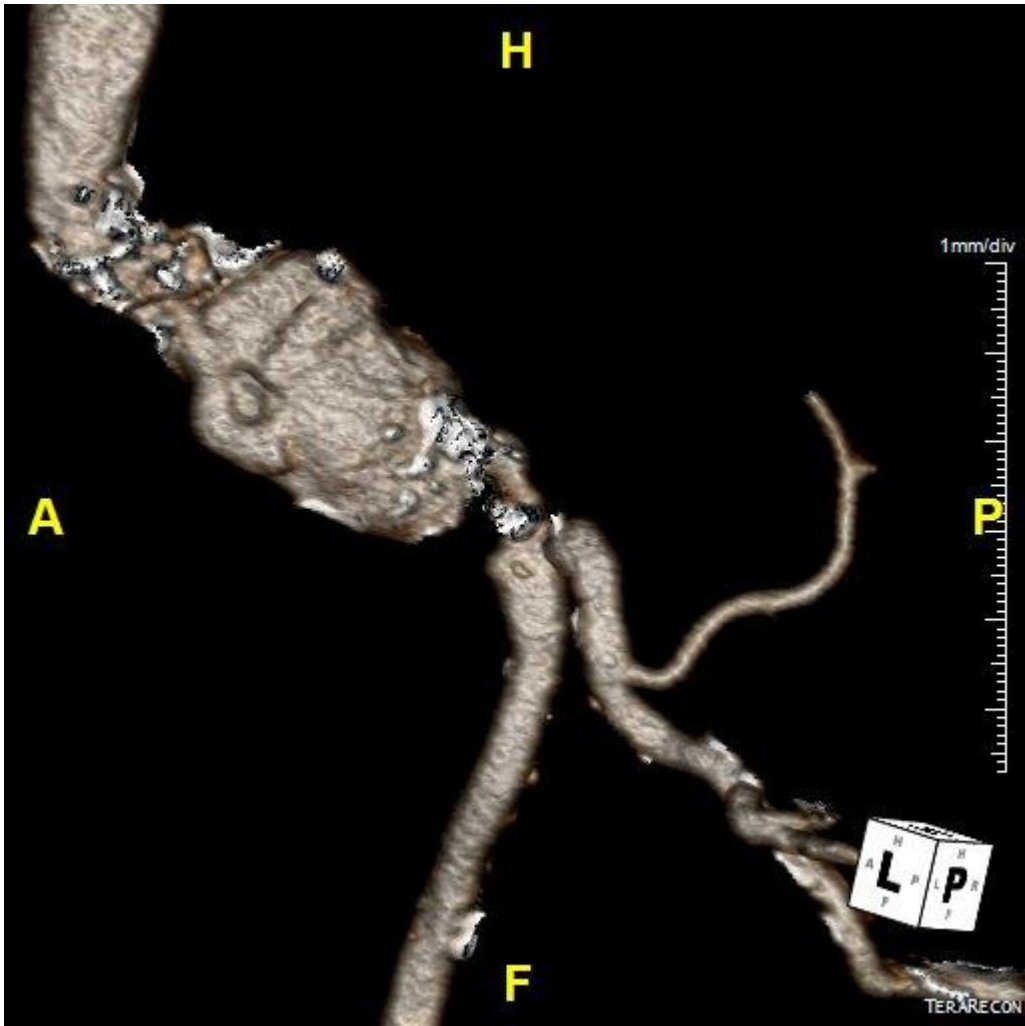


Lower Profile graft



Small diameter distal CIA

Right Distal CIA



If the origin of the distal CIA is too small?

9. CARE Single ▾



Bild 37 av 194



CARE Single ▾

SM
LAO/-RAO 29,9

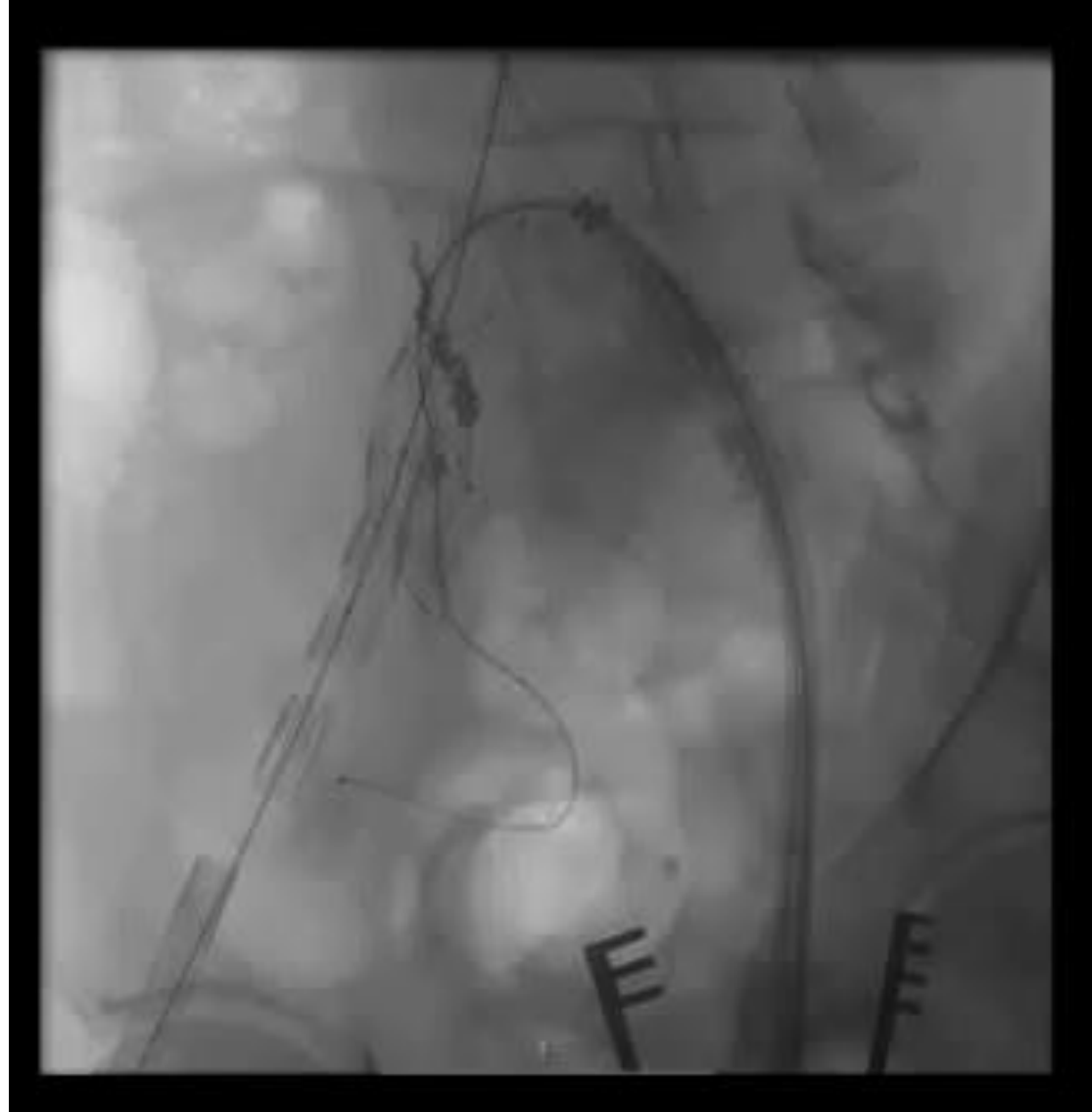
If the origin of the distal CIA is too small?



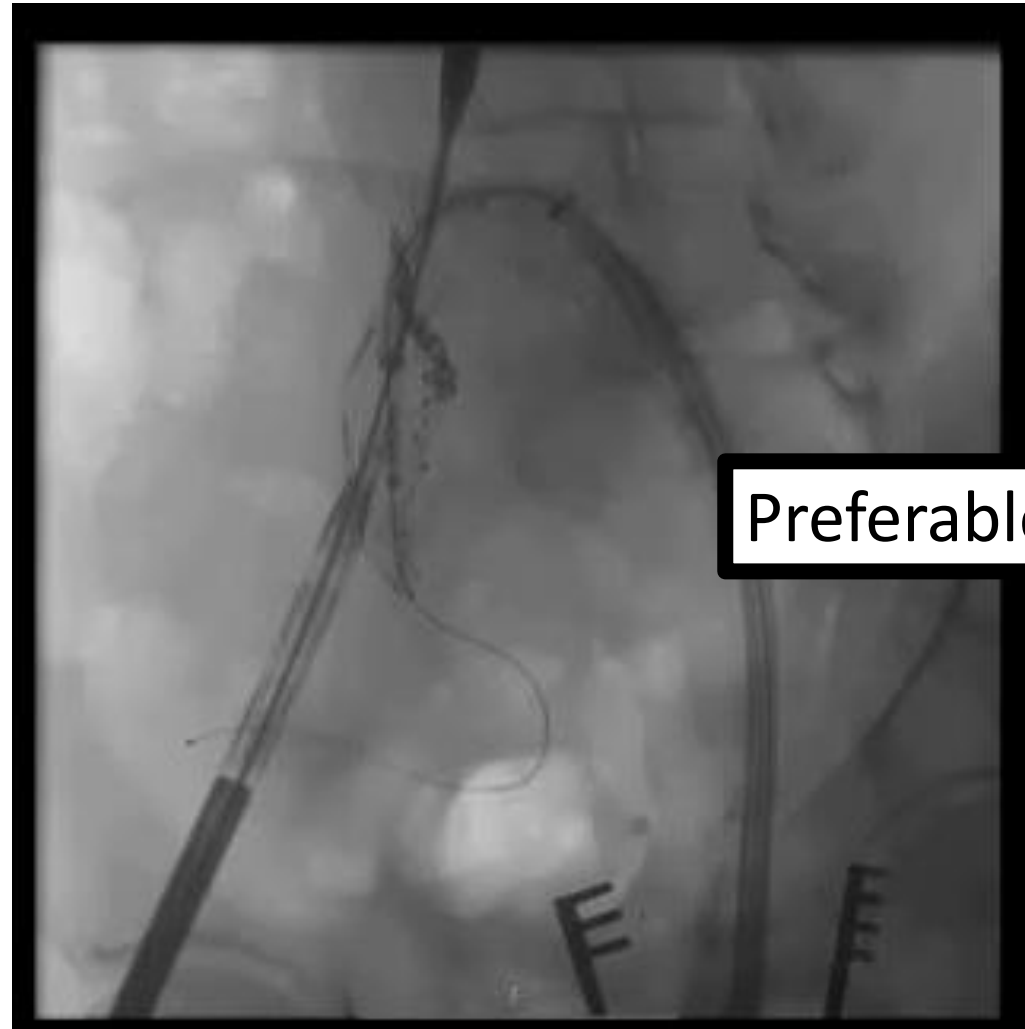
If the origin of the distal CIA is too small?



If the origin of the distal CIA is too small?



If the origin of the distal CIA is too small?

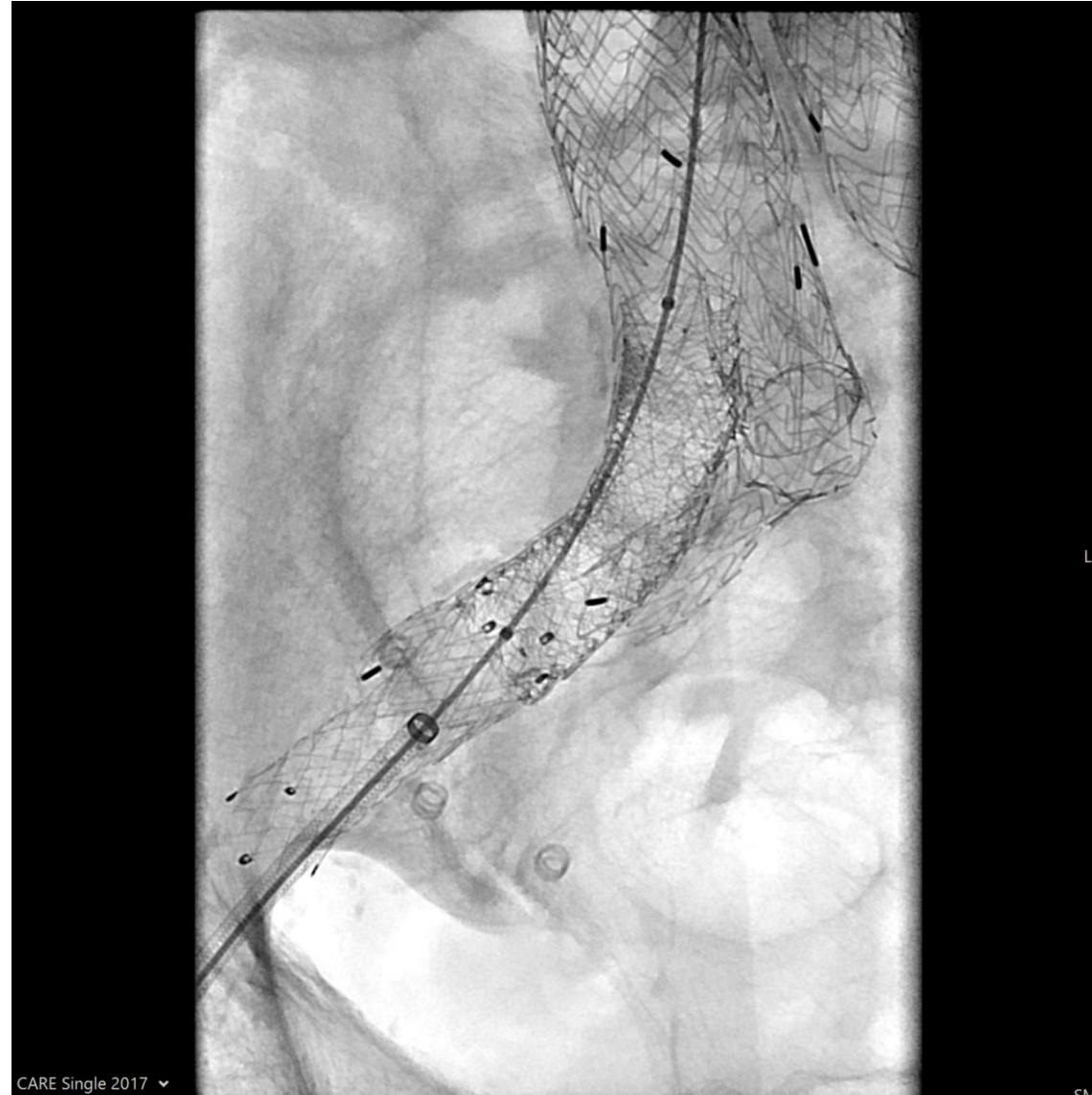


Preferable small diam CIA graft

Tortuosity...



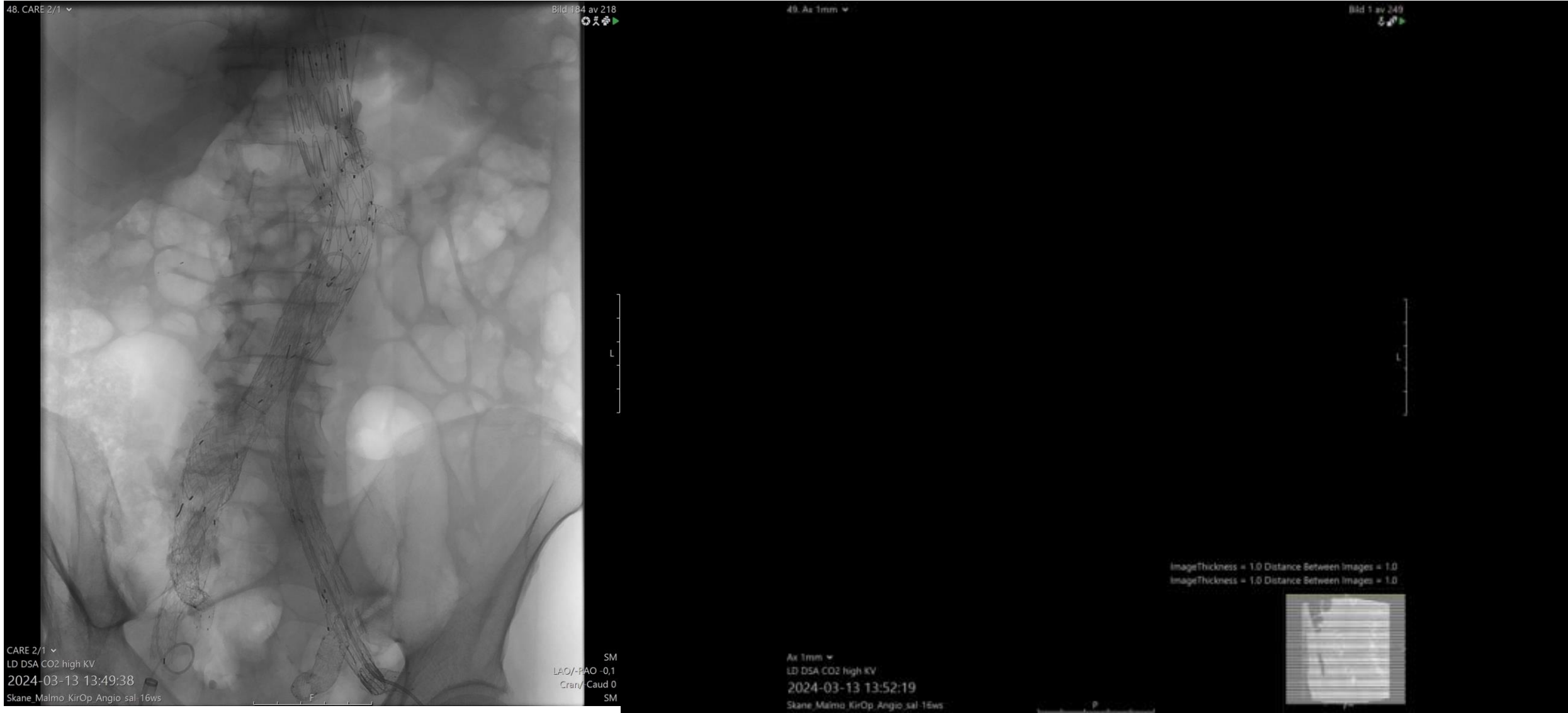
Tortuosity...



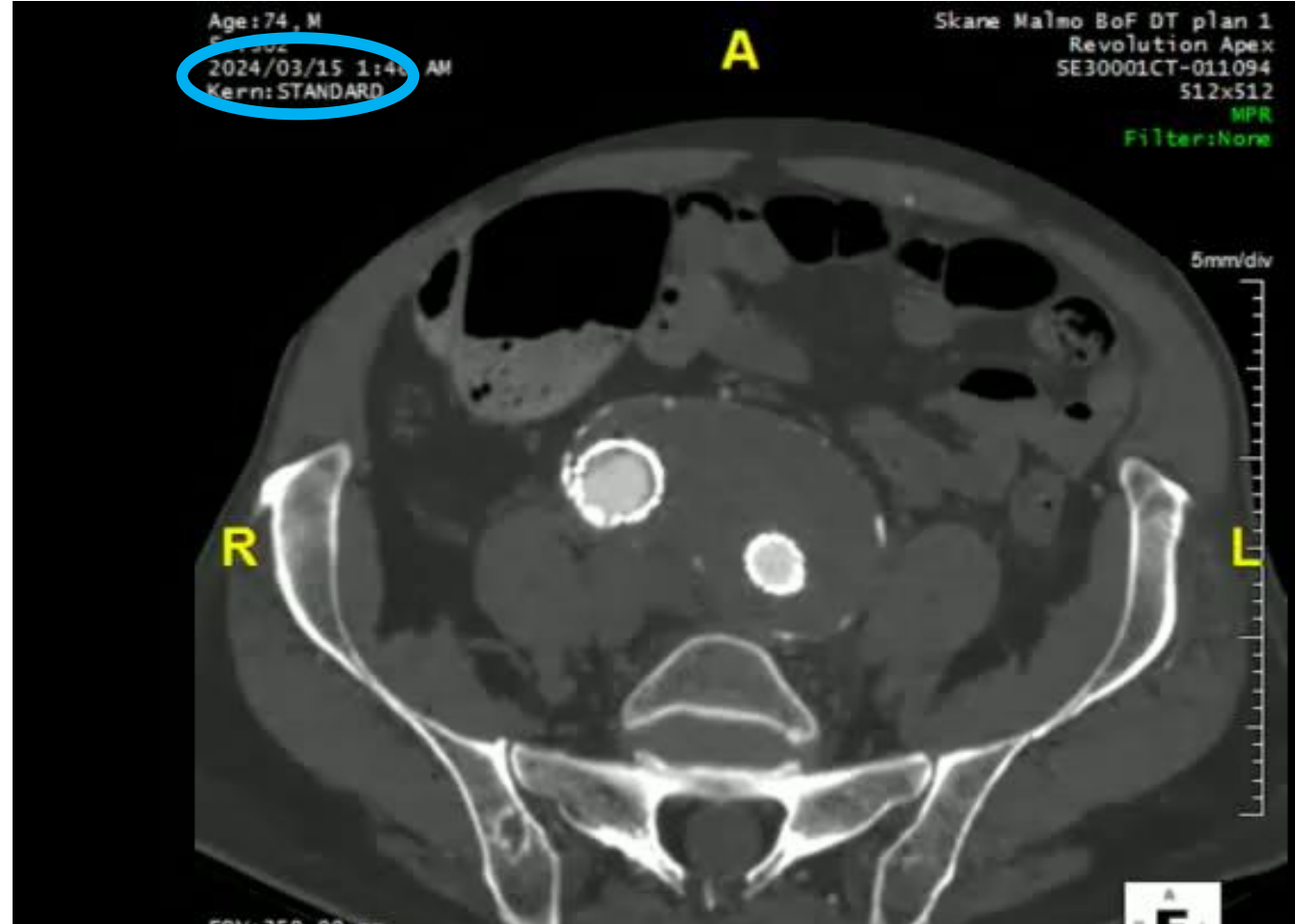
Tortuosity...



Tortuosity...



Tortuosity...



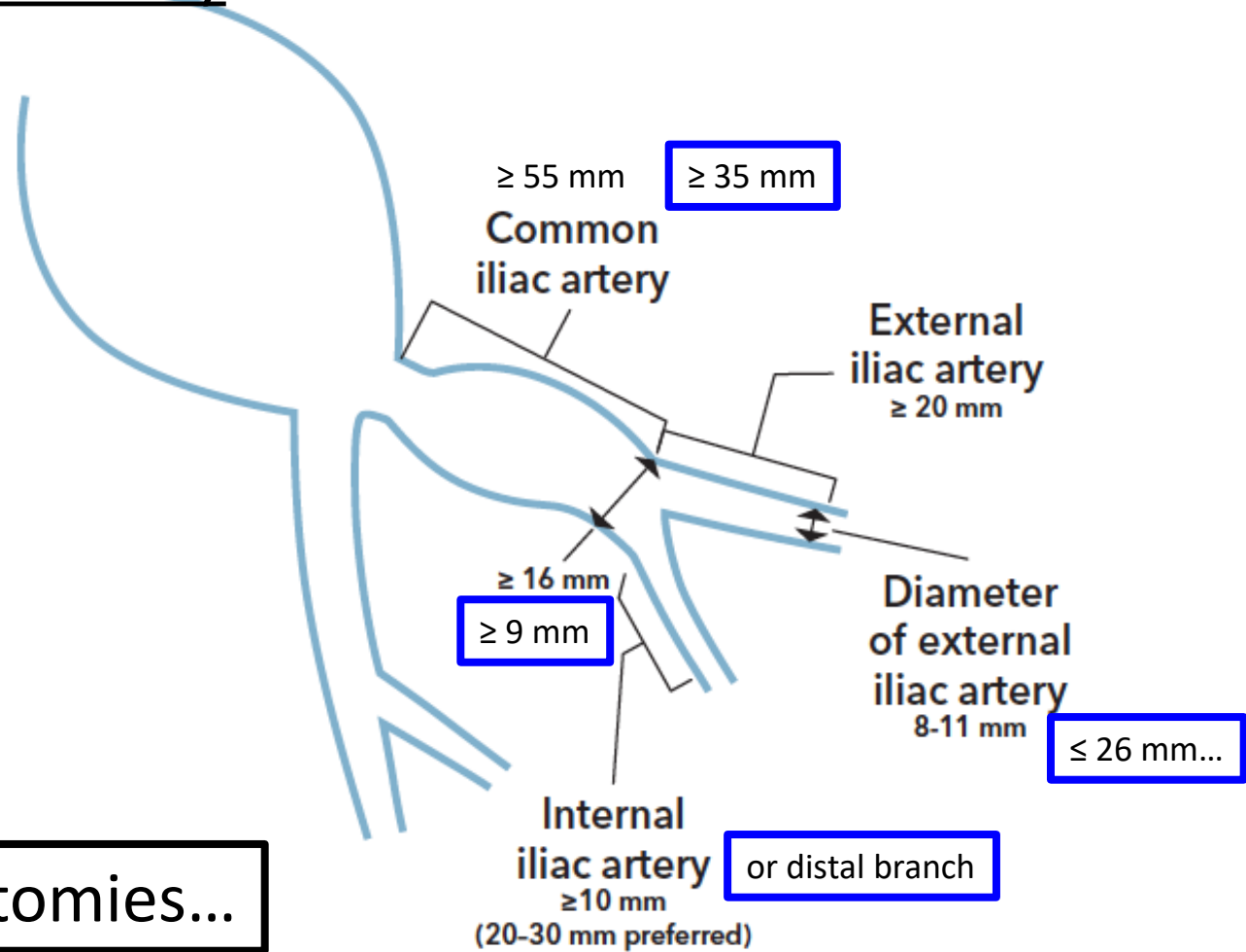
Liberal Relining and Reinforcement independent of Device

CARE 2/1
2024-03-13 13:49:38

W:1228 L:282

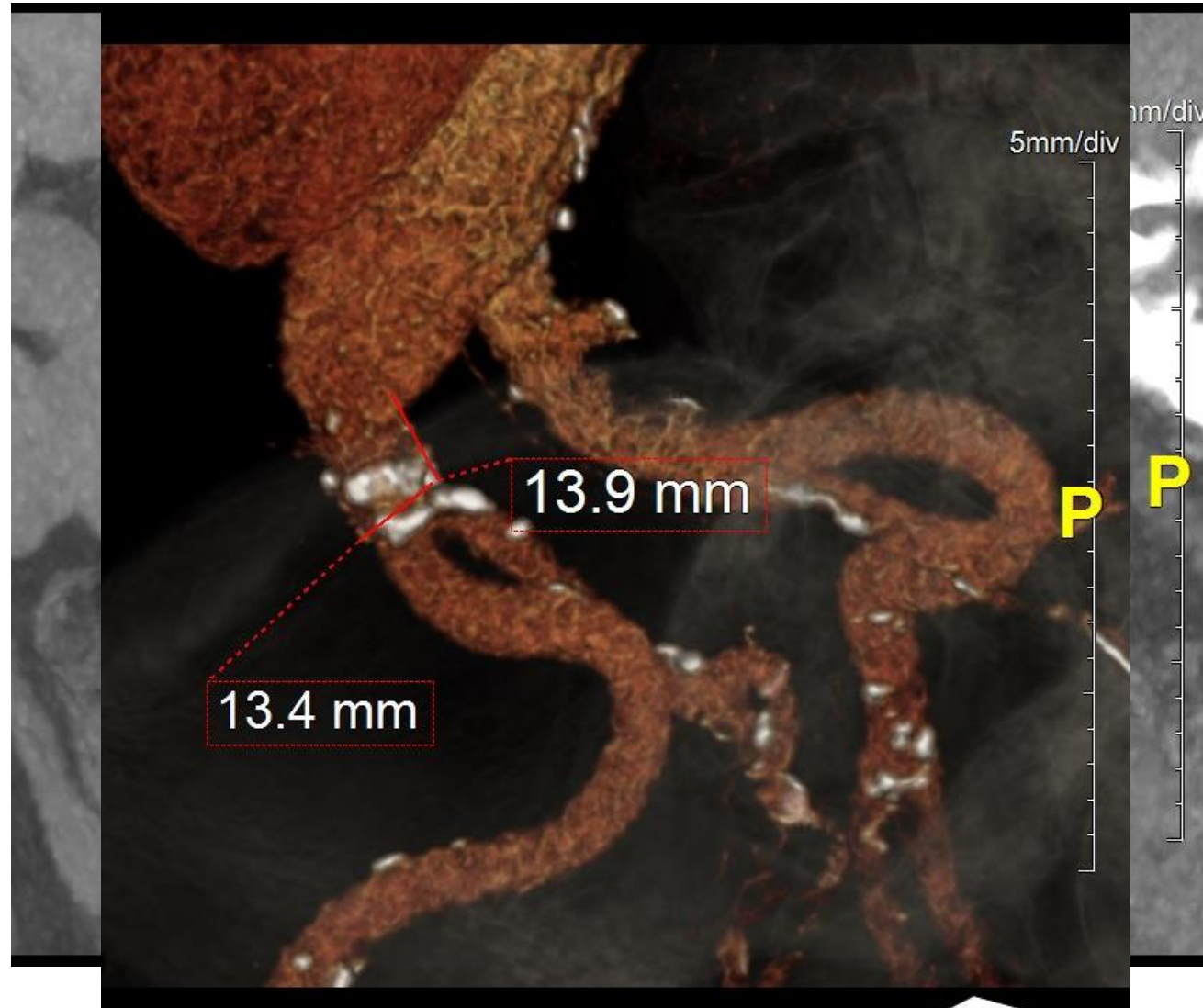
How to choose IBD?

Extend Anatomical Suitability

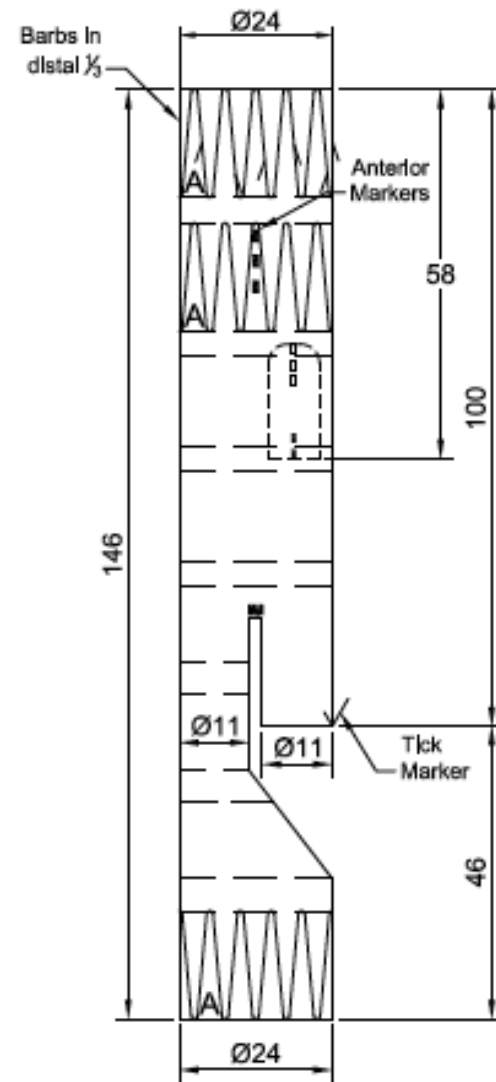
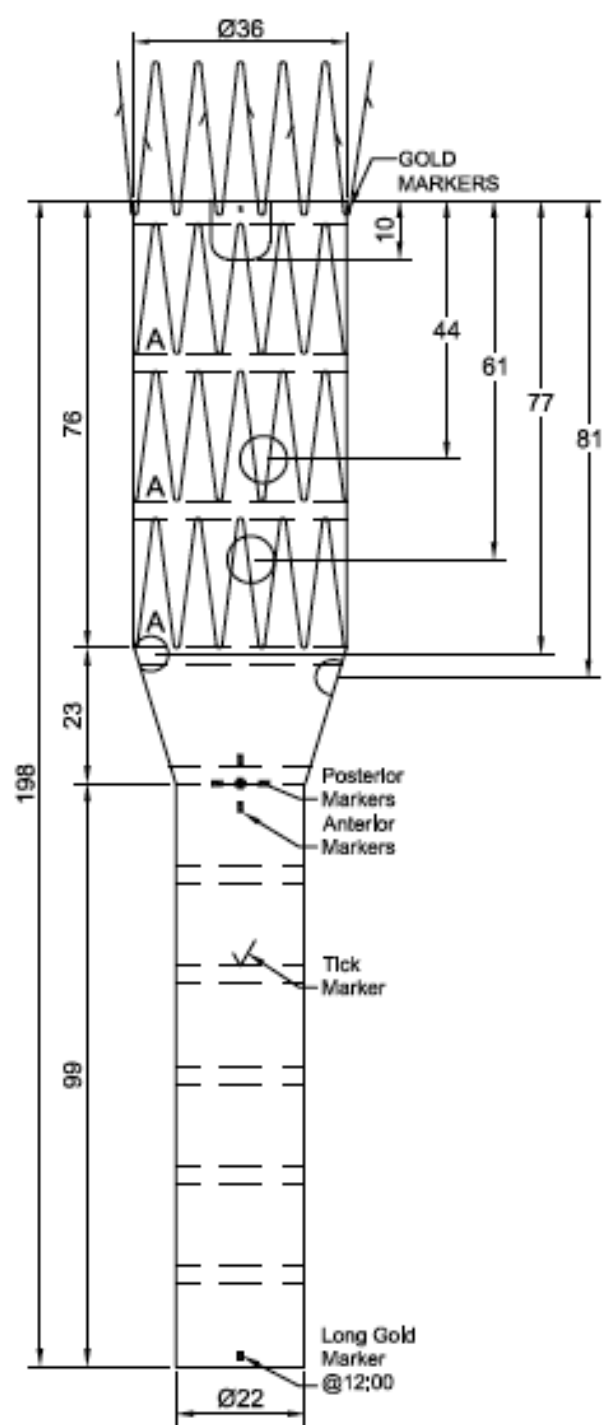


Still not fitting all anatomies...

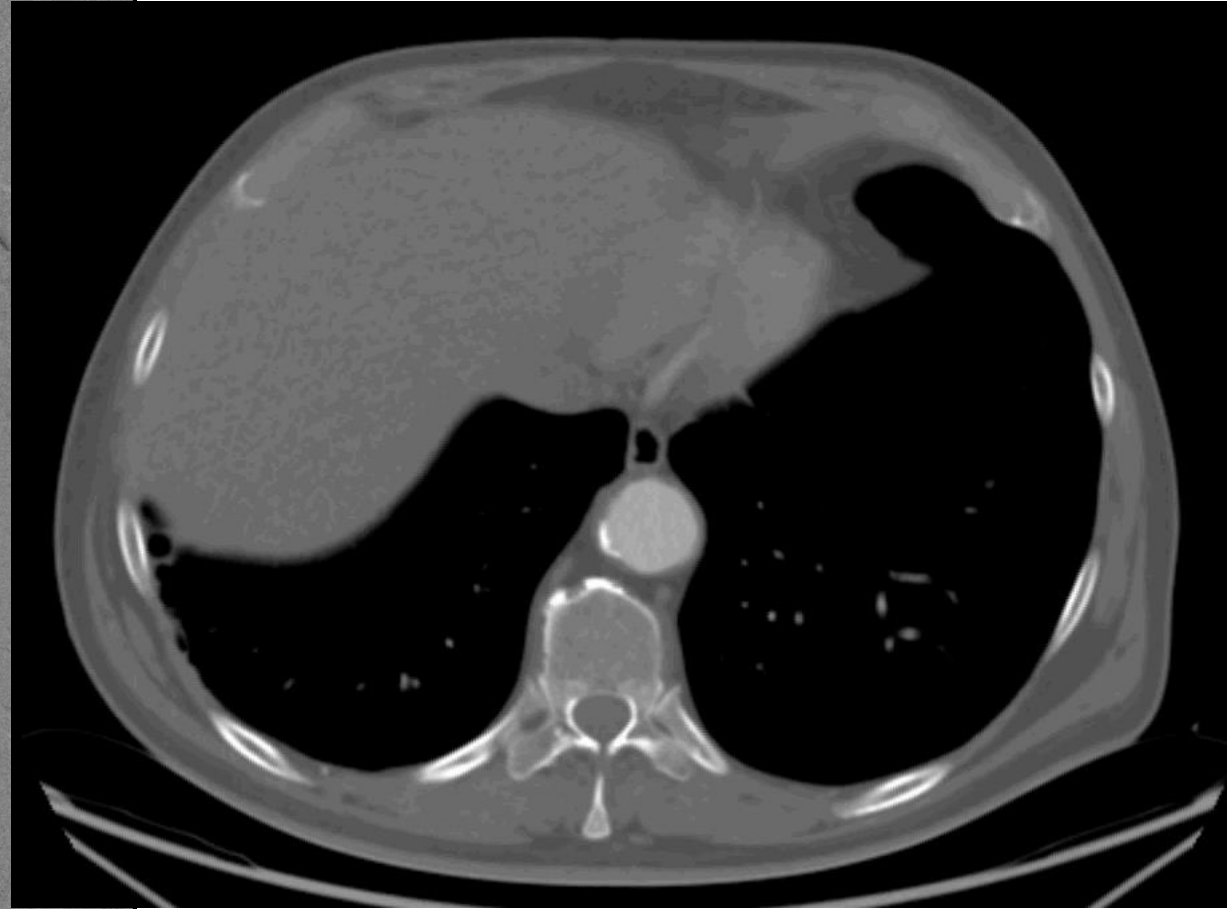
When is it insufficient with a commercial iliac branch?



Graft Plan



Result



Conclusion

- Currently commercially available Iliac Branch Devices:
 - Are applicable in the majority of the patients with adjunctive procedures
 - Provide sustainable results in the preservation of the internal iliac flow
- There is still room for improvement for the choice of the device
 - No device will fit all anatomies
 - Few occasions customized devices are useful

Until more evidence, personal experience will guide much of the device choice



LUND
UNIVERSITY

