



IX Congresso
Novas Fronteiras
em Medicina
Cardiovascular

22 a 24 de Fevereiro 2019

The Village Praia
D'El Rey - Óbidos



HOSPITAL DE
SANTAMARIA

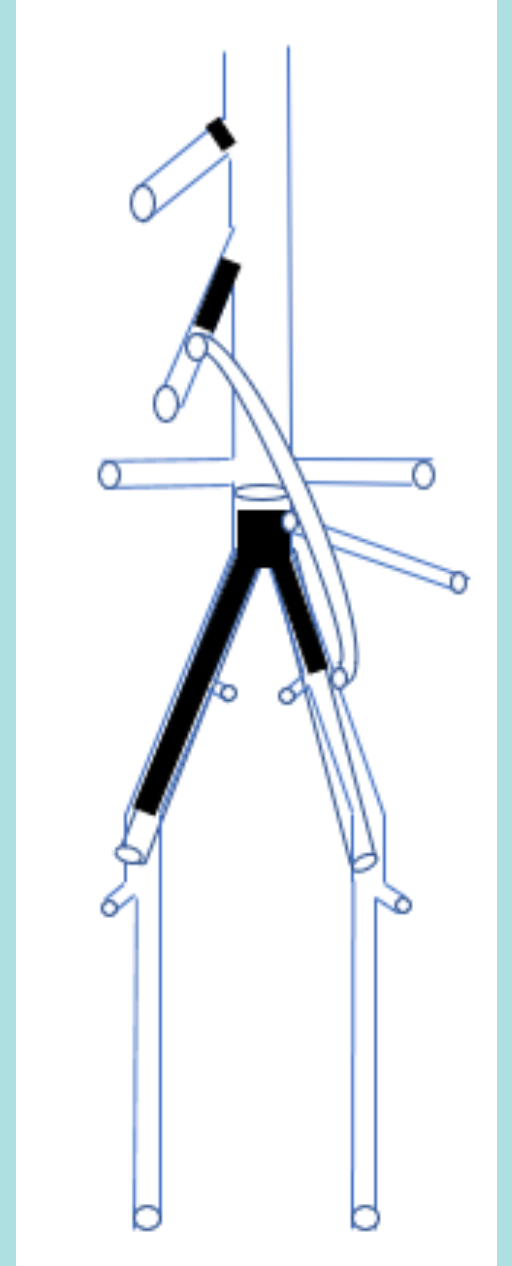
AORTIC GRAFT INFECTION: AN HYBRID AND STAGED SOLUTION

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Martins, Pedro Martins, Luís Mendes Pedro**

Óbidos, 24 Fevereiro 2019

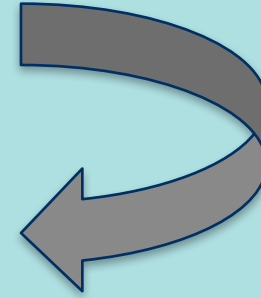
Clinical case

- 51-year-old male
- Former smoker; Hepatitis C under treatment
- **03/12/2013:** Aorto-bifemoral and SMA bypass (dacron) to treat aorto-iliac and visceral occlusive disease
- **23/12/2013:** Roux-en-Y gastrojejunostomy to correct an extrinsic duodenal compression;
- **10/05/2016:** Right femoral anastomotic pseudoaneurysm treated with graft interposition



Clinical case

- 28/02/2018 - admitted in the ER:
 - Left femoral anastomotic pseudoaneurysm
 - Inflammatory signs on the right groin
- Admitted in our department:
 - Overt graft infection of a dacron aorto-bifemoral and SMA bypass
- Empiric antibiotic therapy
- Diagnostic workup (blood analysis/cultures, angio-CT and PET-Scan)



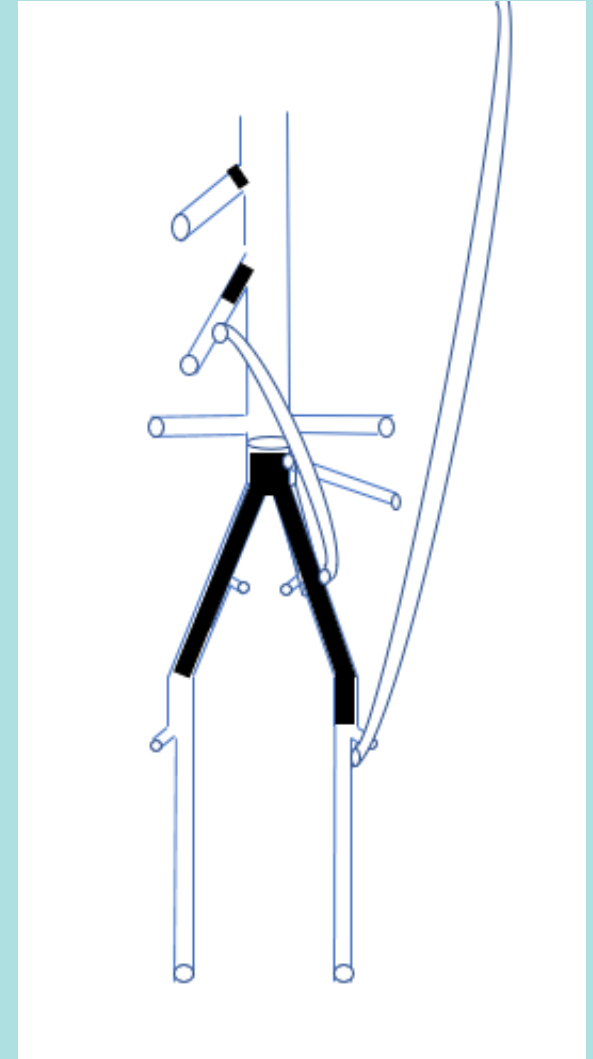
CT scan



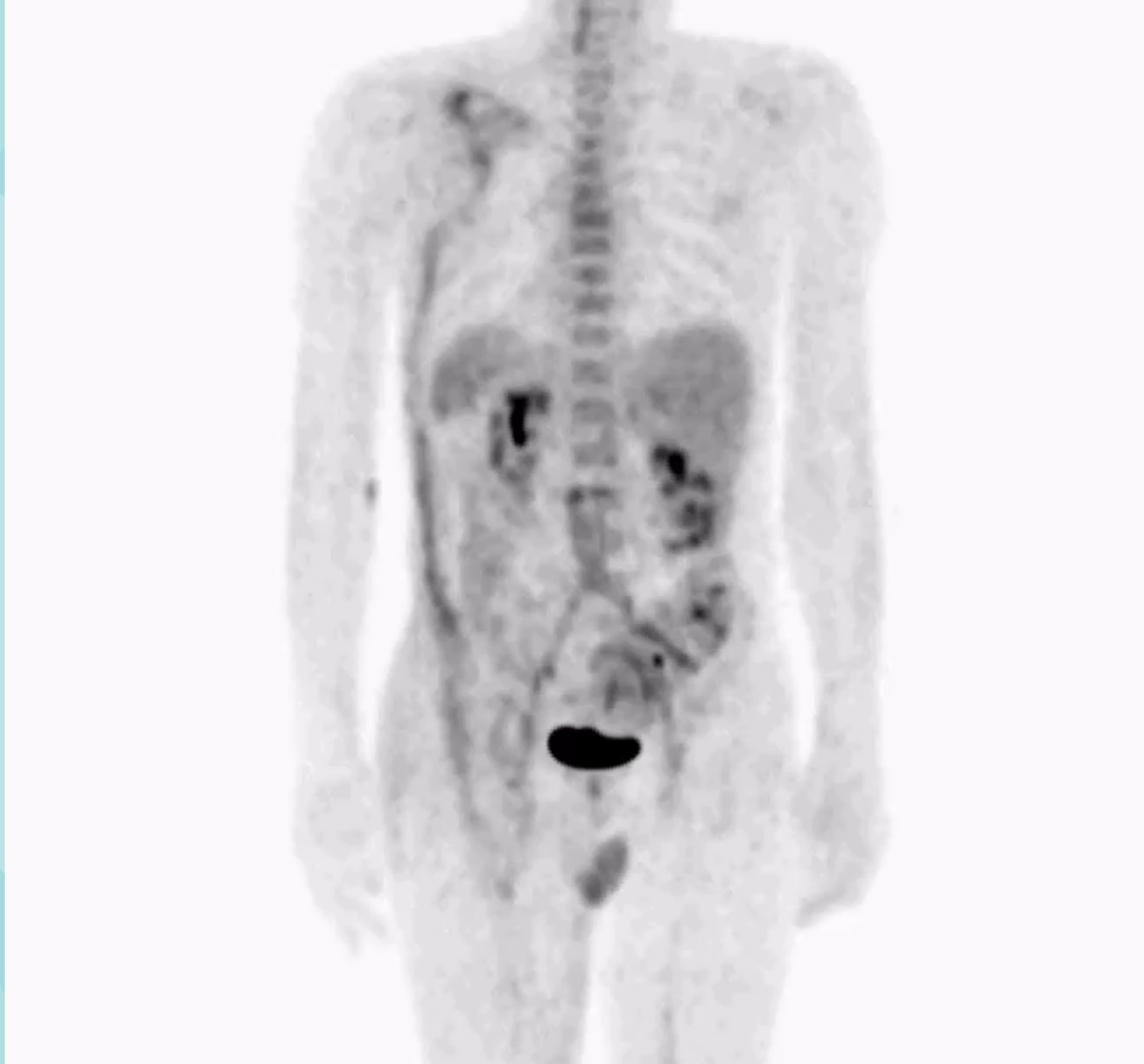
- Functioning bypass
- Perigraft collection

Hybrid approach – (Urgent) 1st stage

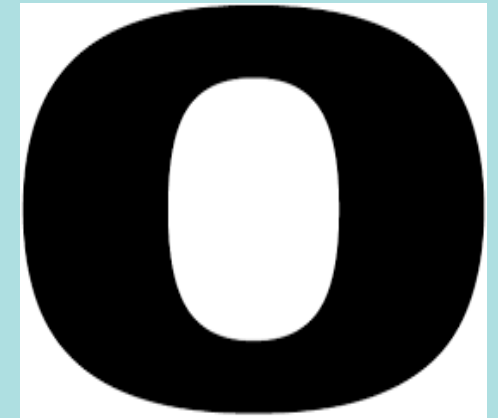
- Left femoral anastomotic pseudoaneurysm growth
 - 12/03/2018: **left axillofemoral PTFE bypass** (avoiding infected area)
 - after incision dressing → **ligation** and partial resection of the **limb graft**.



PET-Scan

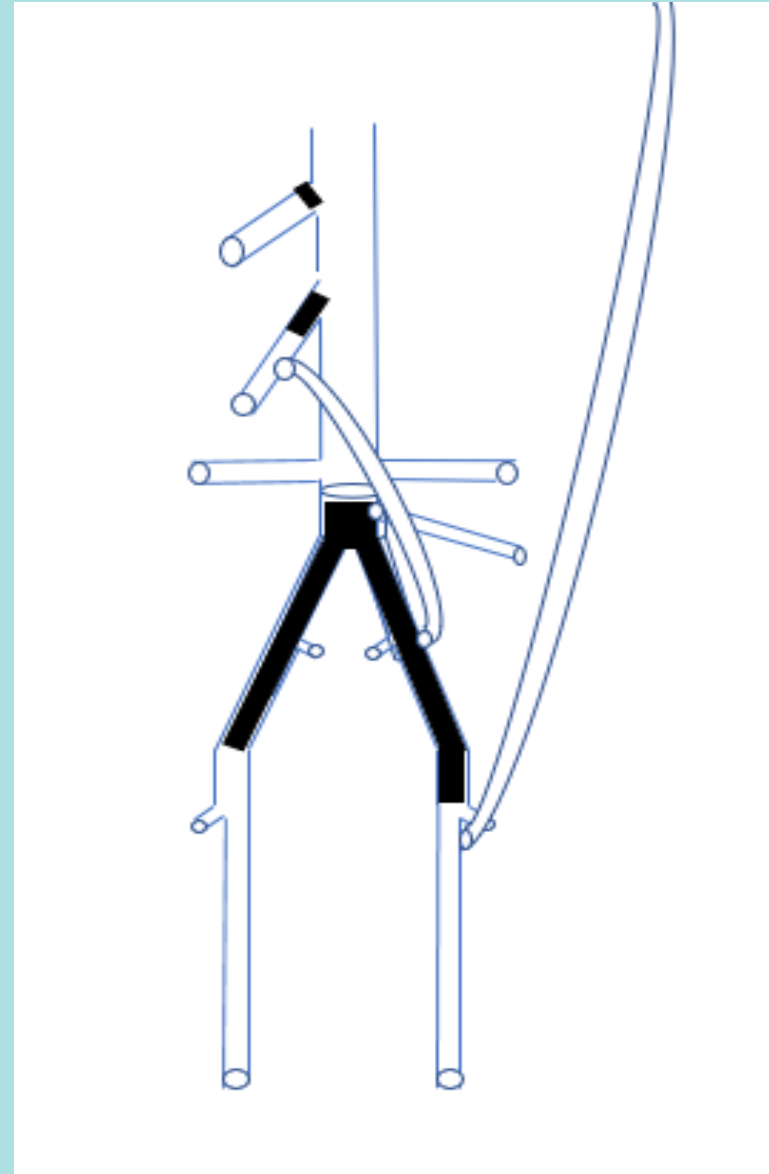


Blood cultures



Case planning

- **Aorto-bifemoral and SMA bypass infection**
- **Visceral complexity:**
 - **Celiac trunk:** occluded
 - **SMA:** occluded
 - **IMA:** patent
(by reimplantation in the aortic graft)
- **Two previous laparatomies:**
 - Aortobifemoral and SMA bypass
 - Roux-en-Y gastrojejunostomy



Case planning

- **Aorto-bifemoral and SMA bypass infection**



Complete graft excision

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Case planning

- **Aorto-bifemoral and SMA bypass infection**



Complete graft excision
Revascularization of the lower limbs

- **Visceral complexity:**
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Case planning

- **Aorto-bifemoral and SMA bypass infection**



Complete graft excision

Revascularization of the lower limbs:

- Left lower limb → left axillofemoral bypass ✓

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- **Celiac trunk:** occluded
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- Roux-en-Y gastrojejunostomy

Case planning

- **Aorto-bifemoral and SMA bypass infection**



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- **Two previous laparatomies:**
 - Aortobifemoral and SMA bypass
 - Roux-en-Y gastrojejunostomy

Complete graft excision

Revascularization of the lower limbs:

- Left lower limb → left axillofemoral bypass ✓
- Right lower limb → axillofemoral bypass

Case planning

- **Aorto-bifemoral and SMA bypass infection**



Complete graft excision

Revascularization of the lower limbs:

- Left lower limb → left axillofemoral bypass ✓
- Right lower limb → axillofemoral bypass

- **Visceral complexity:**

- **Celiac trunk:** occluded
- **SMA:** occluded
- **IMA:** patent
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Endovascular recanalization

- **Two previous laparatomies:**

- Aortobifemoral and SMA bypass
- Roux-en-Y gastrojejunostomy

Case planning

1. Left lower limb → left axillofemoral bypass



2. SMA endovascular recanalization:

2.1 Self-expandable bare metal stent

3. Right lower limb → axillofemoral bypass

4. Covered stent to exclude SMA anastomosis

5. Complete graft excision

Case planning

1ST STAGE

1. Left lower limb → left axillofemoral bypass



12/03/2018

2nd STAGE

2. SMA endovascular recanalization:

2.1 Self-expandable bare metal stent

3. Right lower limb → axillofemoral bypass

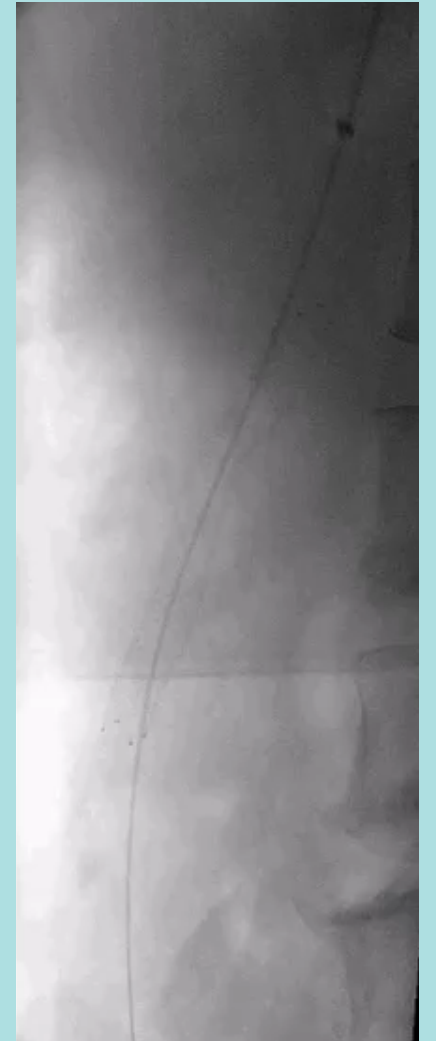
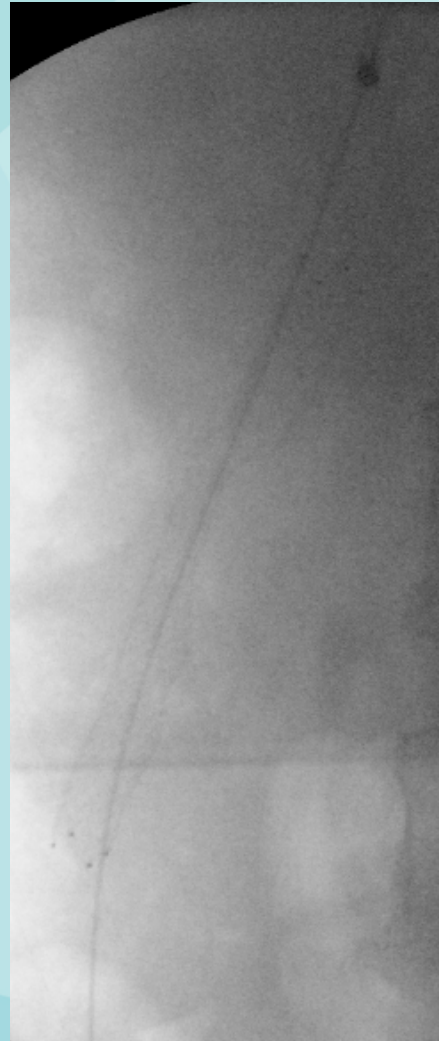
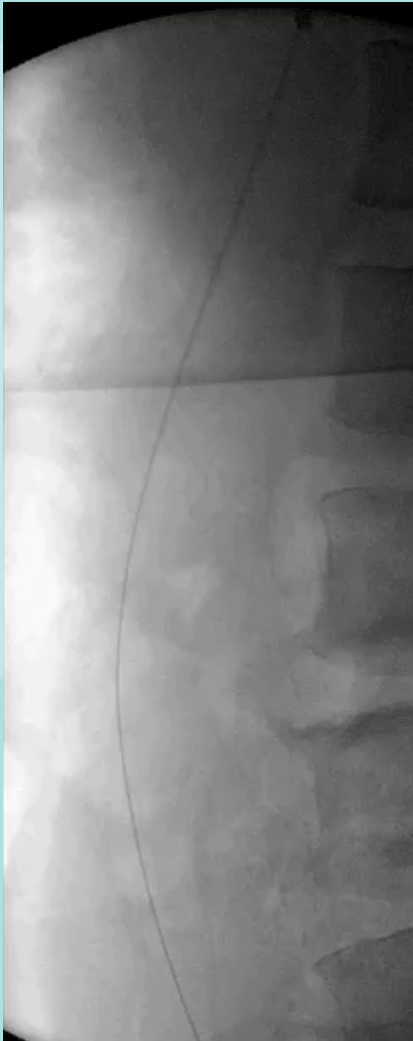
02/04/2018

3rd STAGE

4. Covered stent to exclude SMA anastomosis

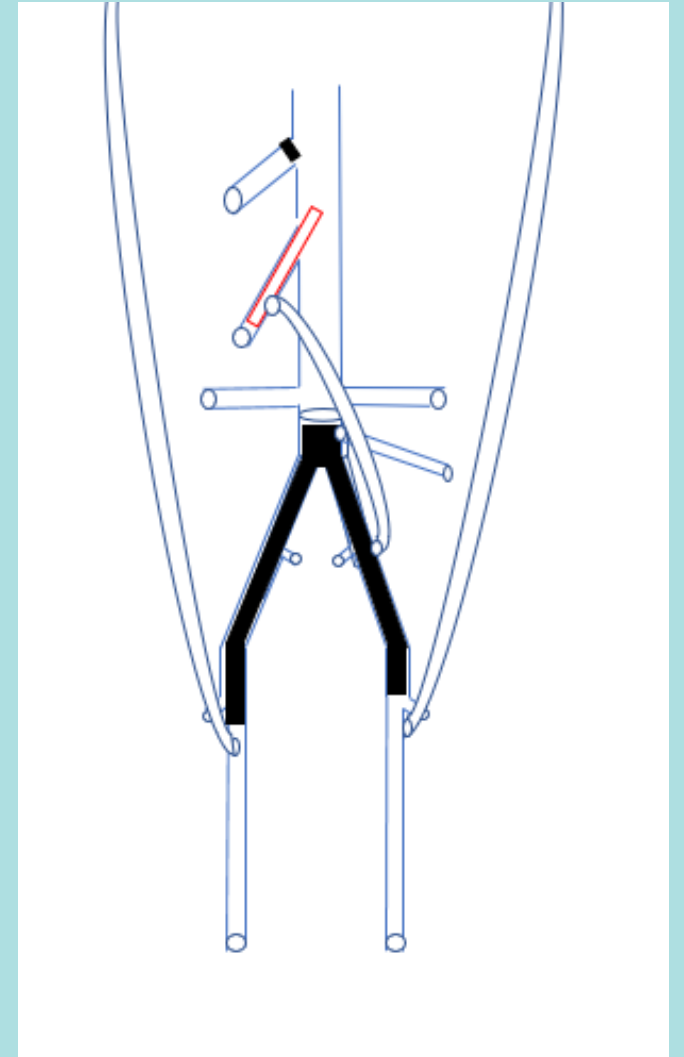
5. Complete graft excision

SMA recanalization and self-expandable bare metal stent (8x80mm – PTX Cook®) – left brachial access



Hybrid approach – 2nd stage

- endovascular **recanalization of the SMA** occlusion with implantation of a self-expandable bare metal stent
- **right axillofemoral PTFE bypass**, lateral to the infected femoral region.
- after incision dressing → **ligation and partial resection of the limb graft**



Case planning

1ST STAGE

1. Left lower limb → left axillofemoral bypass



12/03/2018

2nd STAGE

2. SMA endovascular recanalization:

2.1 Self-expandable bare metal stent



02/04/2018

3. Right lower limb → axillofemoral bypass



3rd STAGE

4. Covered stent to exclude SMA anastomosis

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Case planning

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12/03/2018

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02/04/2018

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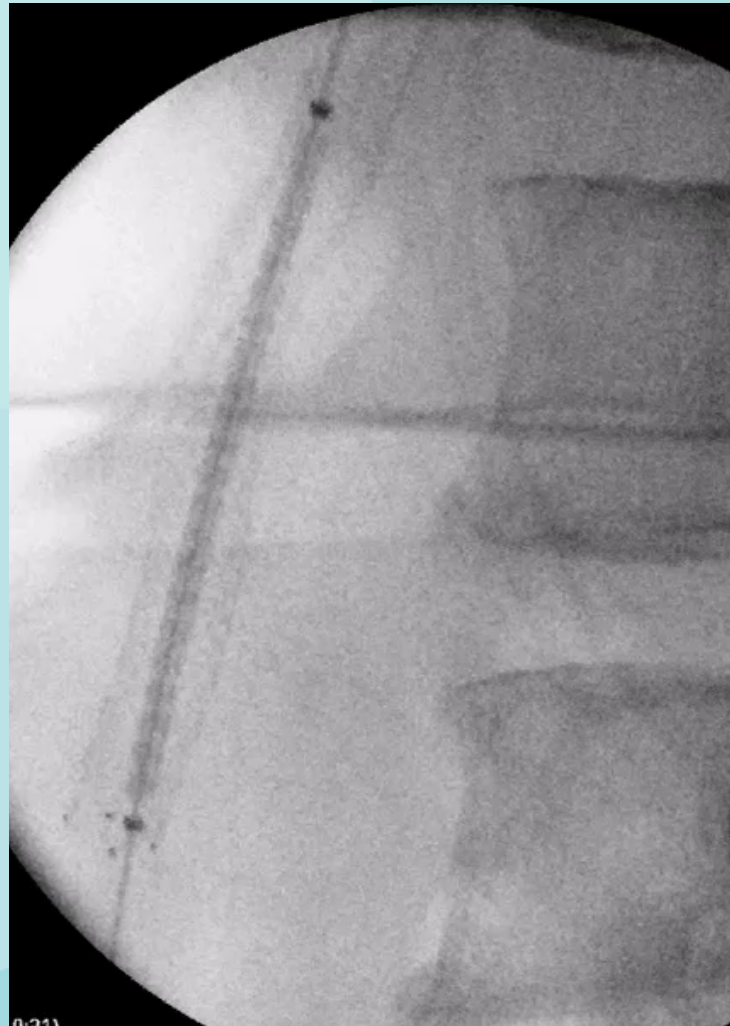
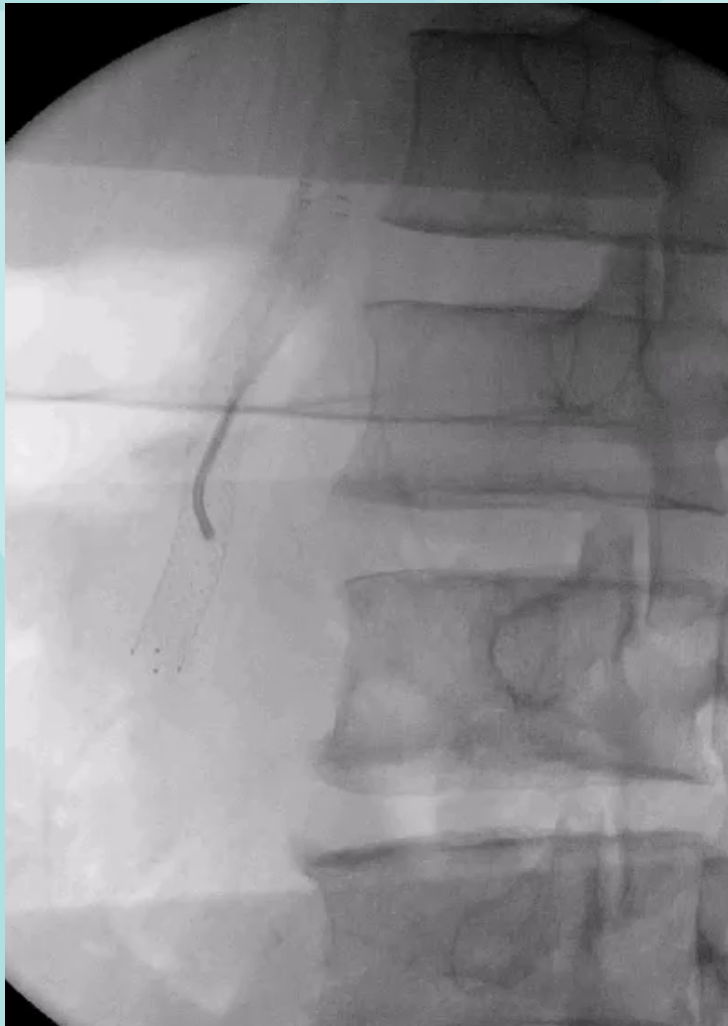
3rd STAGE

4. Covered stent to exclude SMA anastomosis

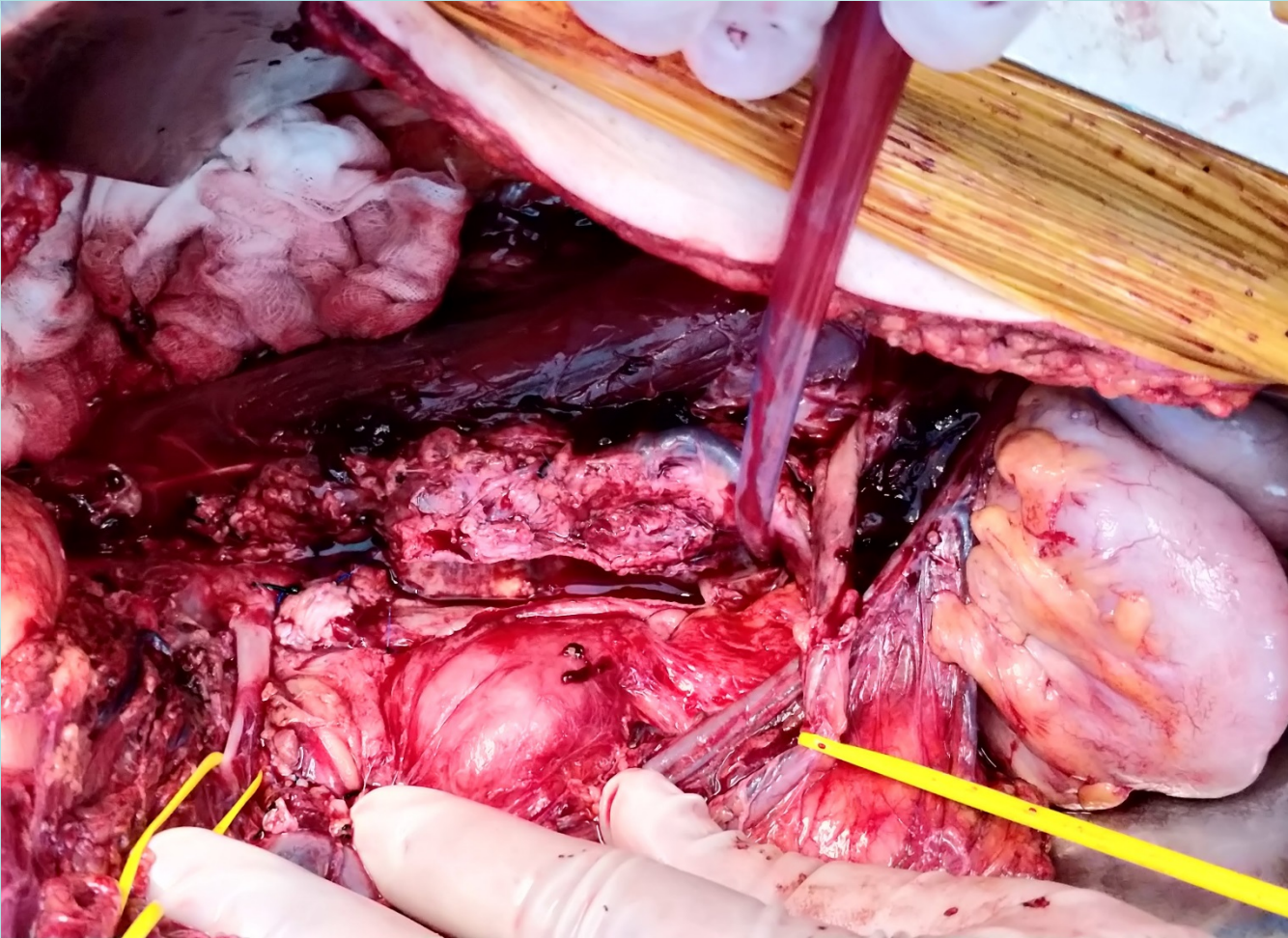
5. Complete graft excision

09/04/2018

Exclusion of the anastomosis of the SMA with a covered stent (8x59mm Atrium ADVANTA™ V12) – left brachial access



Complete excision of the intrabdominal infected graft and aortic ligation



Case planning

1ST STAGE

1. Left lower limb → left axillofemoral bypass



12/03/2018

2nd STAGE

2. SMA endovascular recanalization:

2.1 Self-expandable bare metal stent



02/04/2018

3. Right lower limb → axillofemoral bypass



3rd STAGE

4. Covered stent to exclude SMA anastomosis



09/04/2018

5. Complete graft excision



Case planning

1ST STAGE

1. Left lower limb → left axillofemoral bypass ✓

2nd STAGE

2. SMA endovascular recanalization: ✓

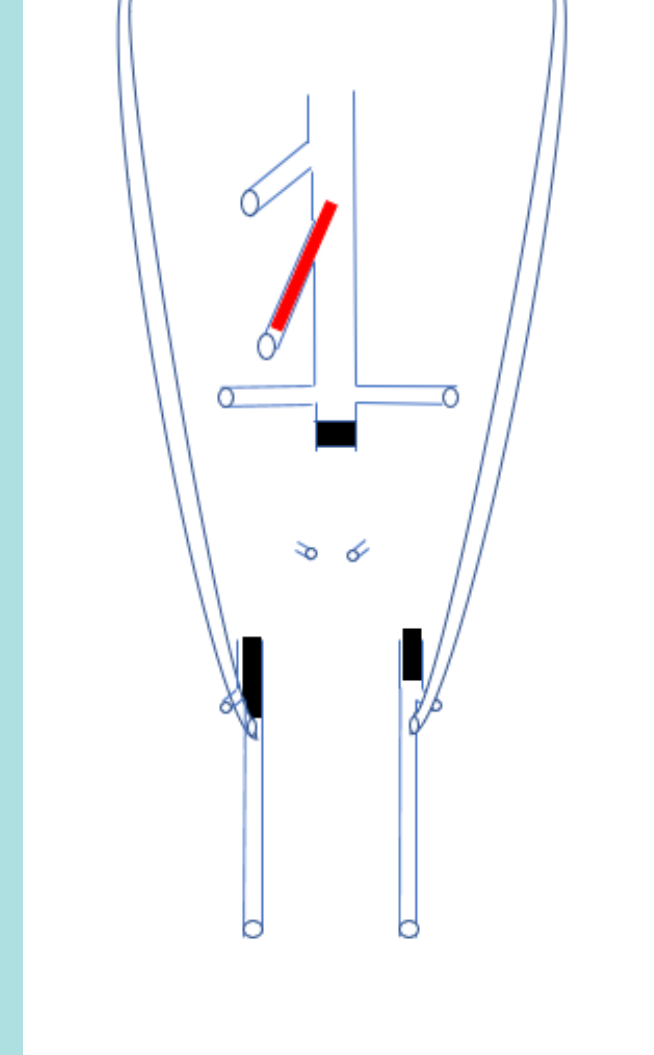
2.1 Self-expandable bare metal stent

3. Right lower limb → axillofemoral bypass ✓

3rd STAGE

4. Covered stent to exclude SMA anastomosis ✓

5. Complete graft excision ✓



Post-op CT-scan – 9 months follow-up

