



The Curious Case of Peroneal Artery Pseudoaneurysm

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- 68 year old lady with right calf pain. She is otherwise healthy and did not have any chronic diseases such as diabetes, hypertension, peripheral artery disease.
- Past medical history: Remote history of treatment of varicose veins by vein stripping in bilateral lower extremities.
- As a part of her work up she underwent a CTA of the aorta with run off. The CTA showed a pseudoaneurysm of the right peroneal artery
- No aneurysms in any other vascular beds

RT

30mm
[proj]

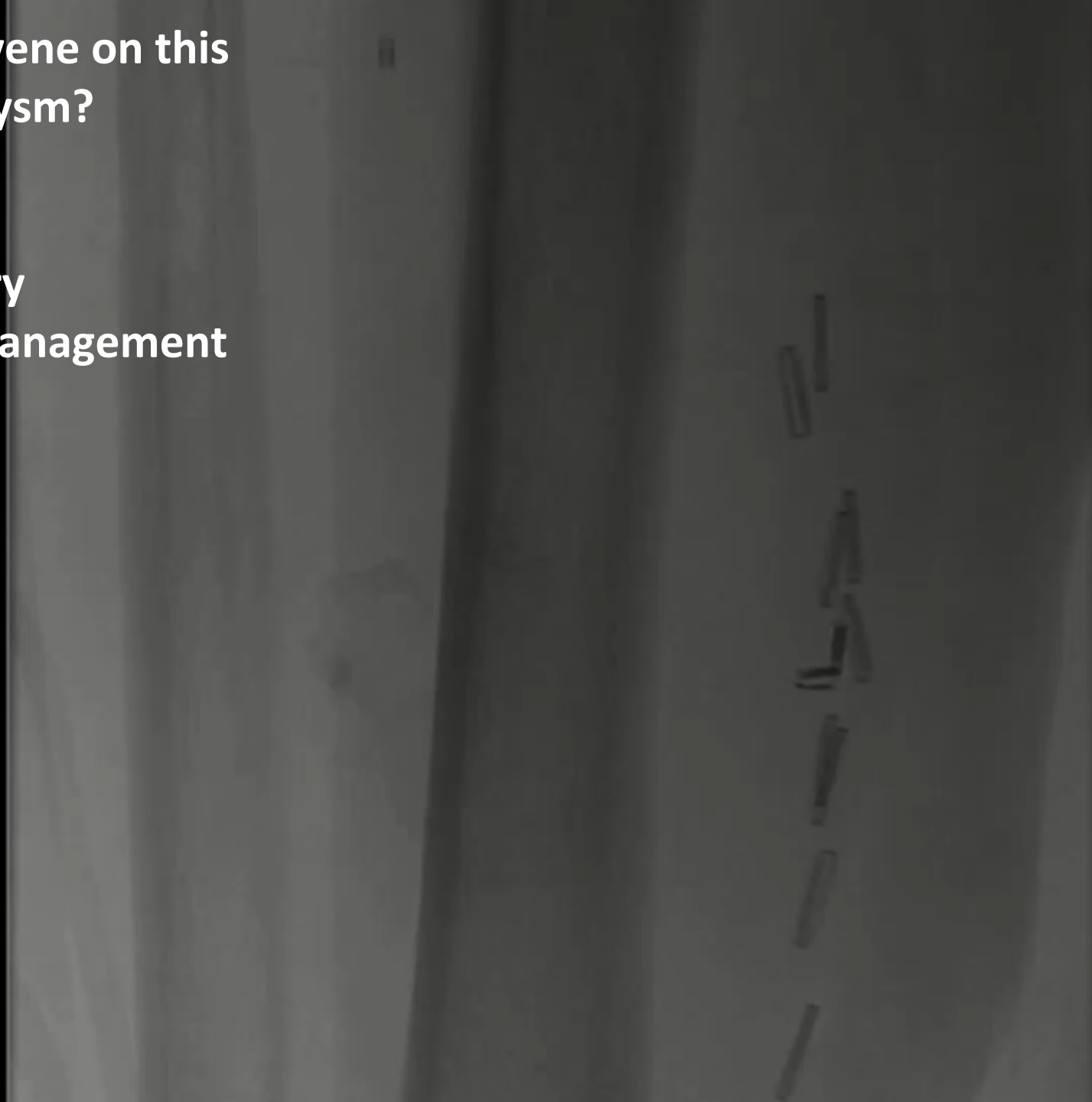
Retrograde left common femoral
artery access with 5 French sheath
and crossed over into the right
popliteal artery



30mm
[proj]

How will you intervene on this large Pseudoaneurysm?

- a. Endovascular**
- b. Refer for surgery**
- c. Conservative management**

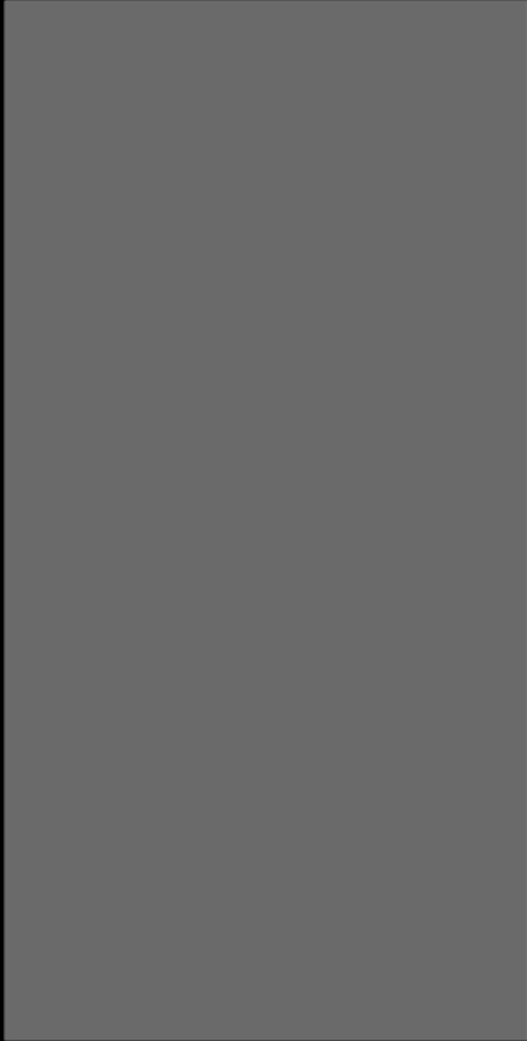


15mm
[proj]

- Attempted to cross the aneurysmal sac with a 0.14 wire & a 5 French catheter
- Unable to cross despite multiple attempts and multiple wires



8mm
[proj]



15mm
[proj]

- Antegrade access in the right common femoral artery (second access)
- 5 French catheter was parked in the right posterior tibial artery (PTA) and angiographic images obtained
- Collateral flow into the peroneal artery from the right posterior tibial artery was identified
- A neuro catheter was passed through the PTA into collateral vessel into the peroneal artery



10mm
[proj]

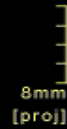
- 4x8 snare (antegrade into the peroneal artery) to capture the 0.014 wire passed retrograde down the collateral from the PTA (Rt CFA access)
- Externalized via the left CFA sheath

RT

8mm
[proj]

- Subsequently 2.4 x 8 tornado coils were placed in the proximal & distal Peroneal artery

- All flow into the pseudoaneurysm was occluded



- Its not over!!
- The final Angiographic image shows intact perfusion in the foot
- She was seen in follow up with complete resolution of her calf pain



30mm
[proj]

Discussion

- Isolated pseudoaneurysms (PA) in the peroneal artery is a rare entity – data limited to case reports.
- Most common causes - blunt injury to the leg, mycotic pseudoaneurysms, and connective tissue disorders.
- No clear etiology for our patient. Did she develop this PA as a late complication to her varicose vein treatment?
- Management - surgical or endovascular depending on the size, complexity.
- Surgical management involves the evacuation of the hematoma followed by arterial wall repair by primary closure or by insertion of a vein patch.
- Endovascular treatment is by placement of coils in the proximal and distal segments of the vessel but not the pseudoaneurysm itself.

Key Take Home Points

- Isolated Pseudo aneurysms of the below knee vessels are a rare entity
- Endovascular coiling to occlude the feeding vessels is reasonable treatment strategy
- Do not place coils inside the pseudoaneurysm
- Always ensure that circulation to remainder of the distal extremity is not compromised

Thank You

Credits: Dr. Bruce Gray