

Less Than Common: Retrograde Popliteal to Common Femoral Revascularization

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Case

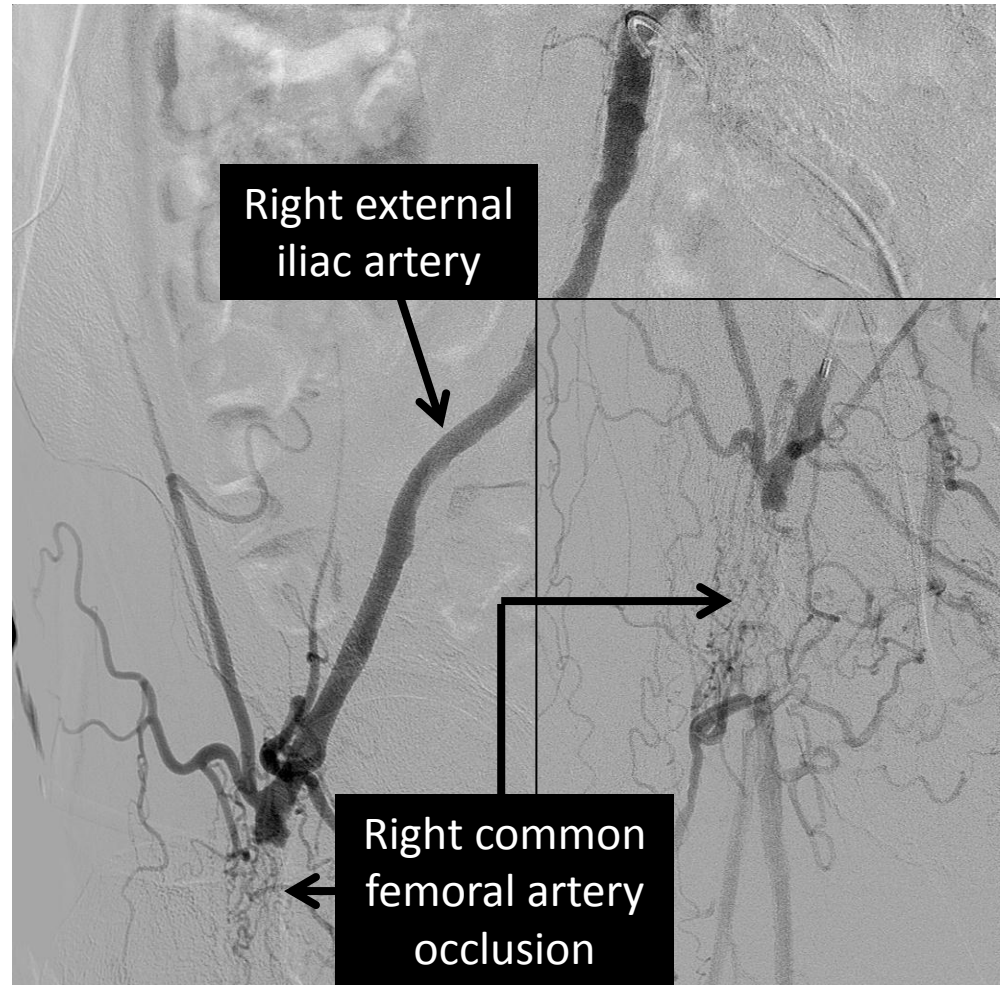
- 65 year old man
- PMH:
 - DM, HTN, HLD
 - CAD s/p stenting
 - Abdominal aortic aneurysm
- Progressive right leg claudication

Case

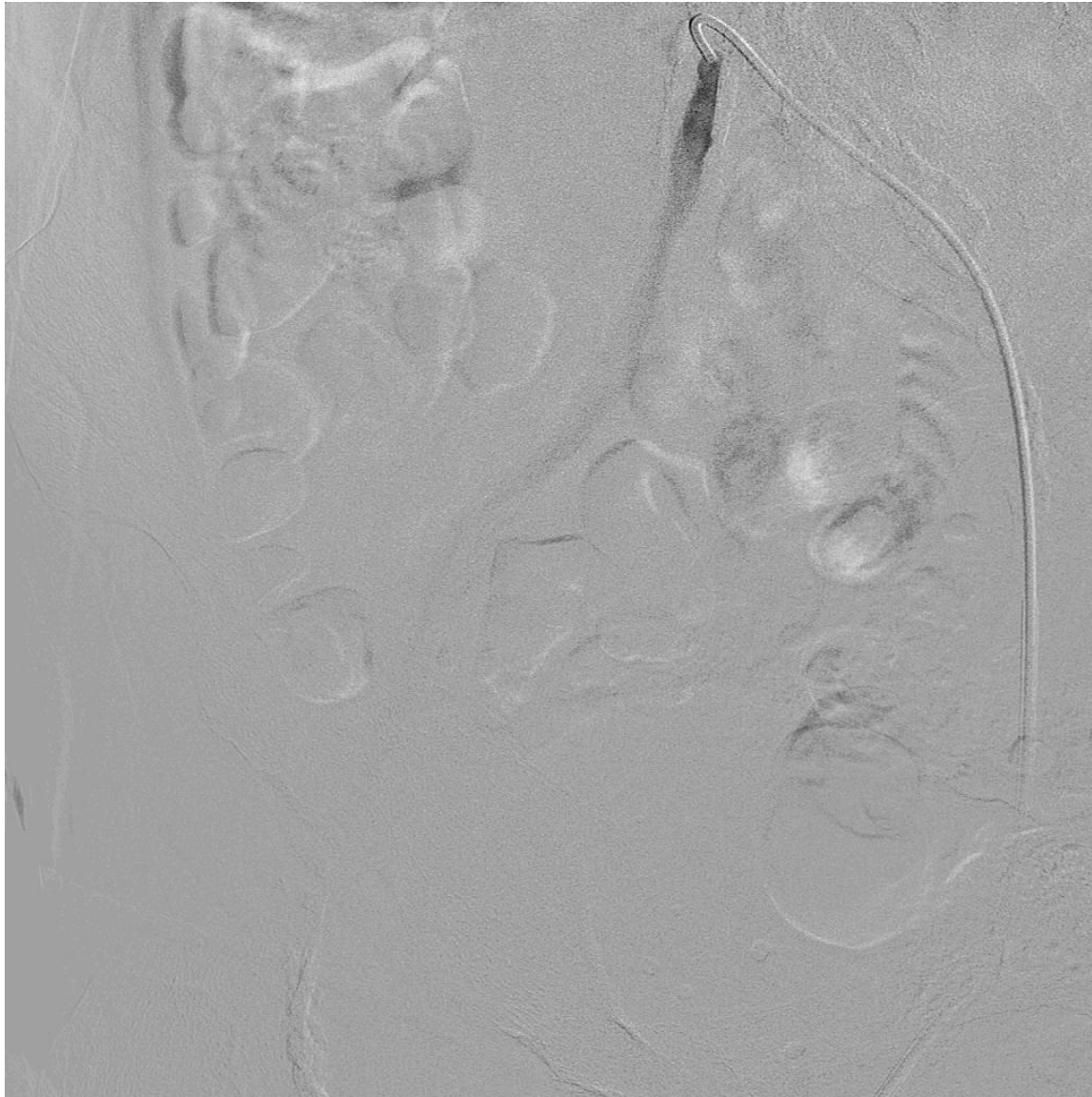
- Pertinent pre-cath findings:
 - CTA abdomen:
 - Moderate to severe bilateral common iliac arteries
 - Significant stenosis of distal right common femoral artery
 - Known mild infrarenal abdominal aortic aneurysm

Right iliac angiography

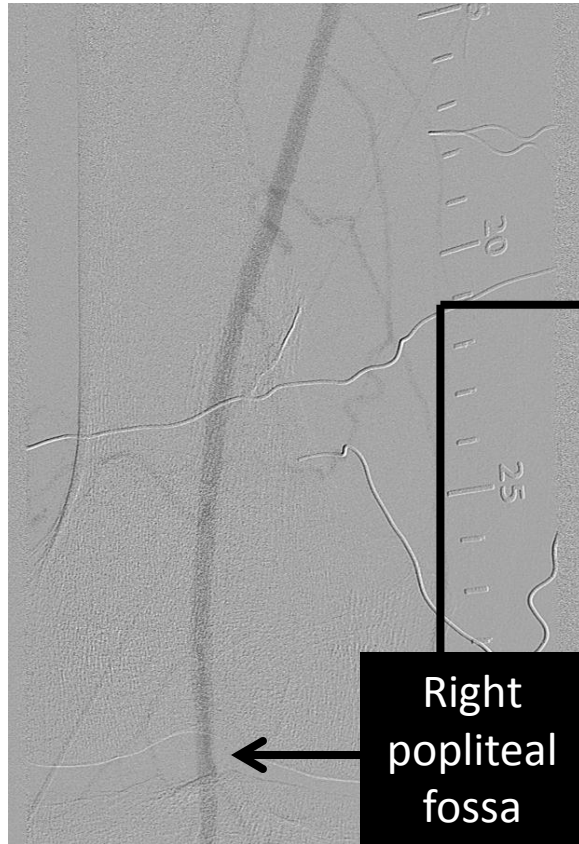
- Severe calcific disease of right external iliac artery
- Complete occlusion of right common femoral artery proximal to superficial and deep femoral artery bifurcation



Right iliac angiography



Peripheral angiography



- Patent right popliteal artery

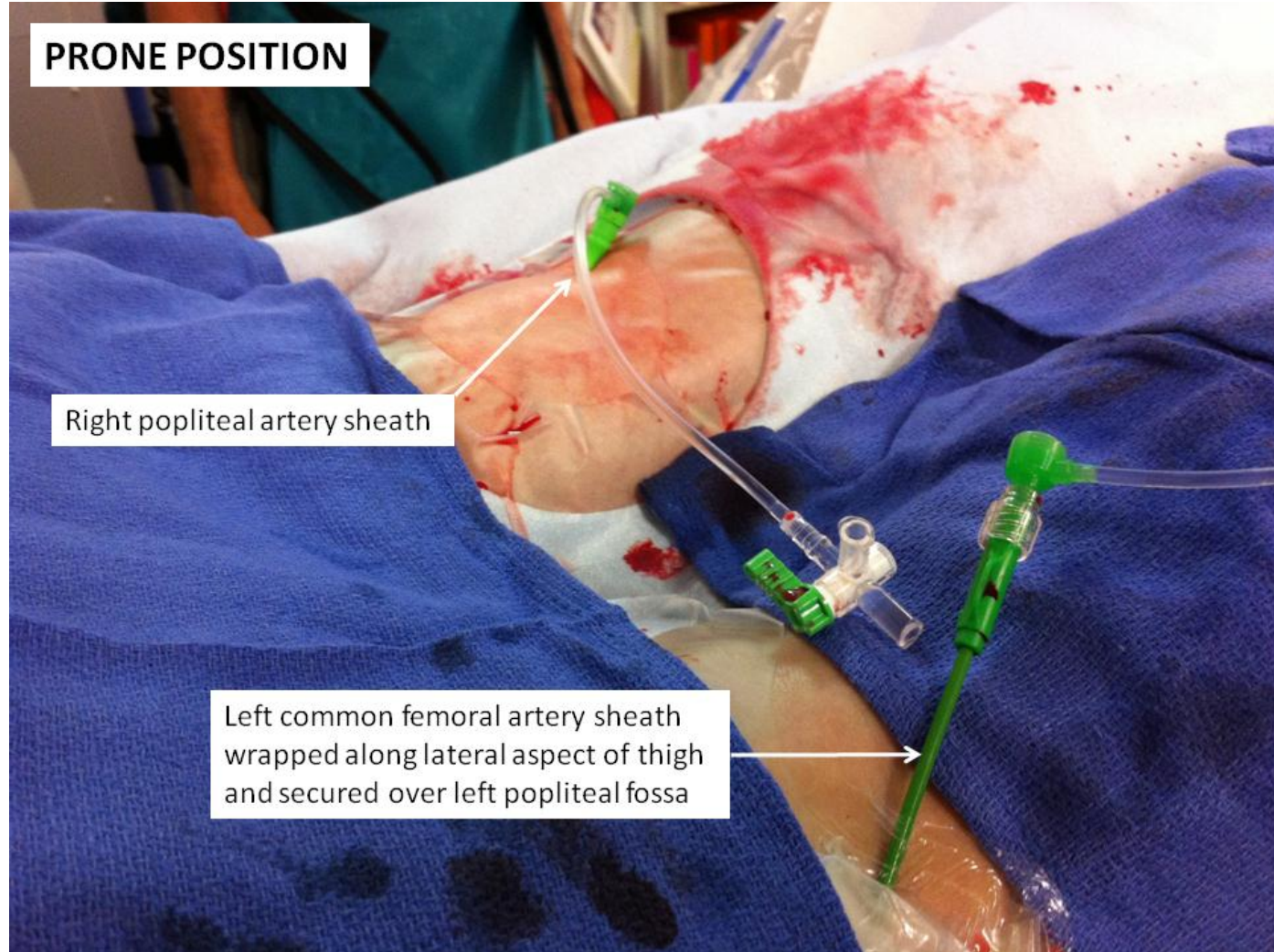
- Three vessel distal run-off



Case

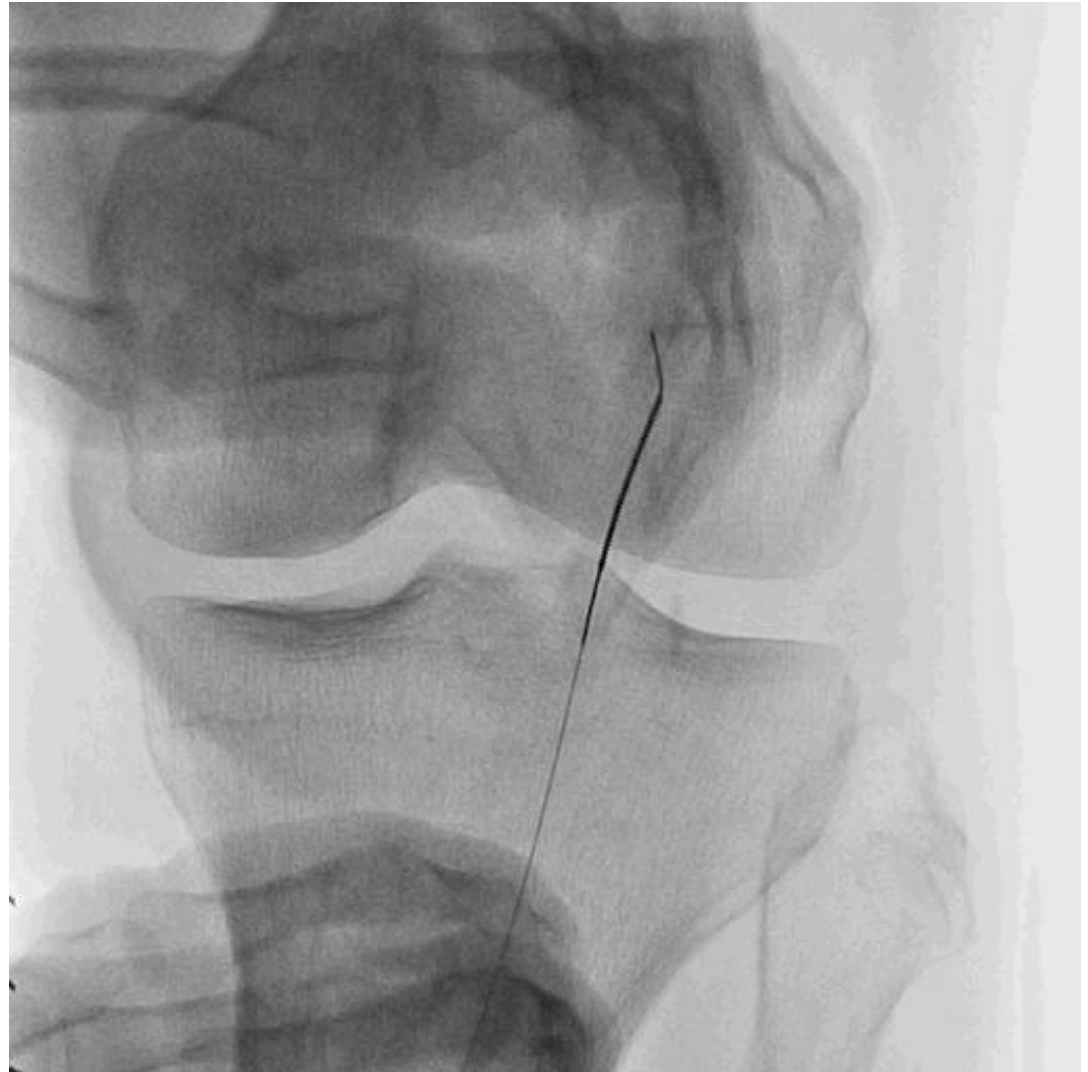
- After extensive discussion, patient elected for percutaneous intervention, declining surgery.
- Given significant risk for antegrade dissection and potential to compromise flow of deep femoral artery, retrograde approach was selected.

Access



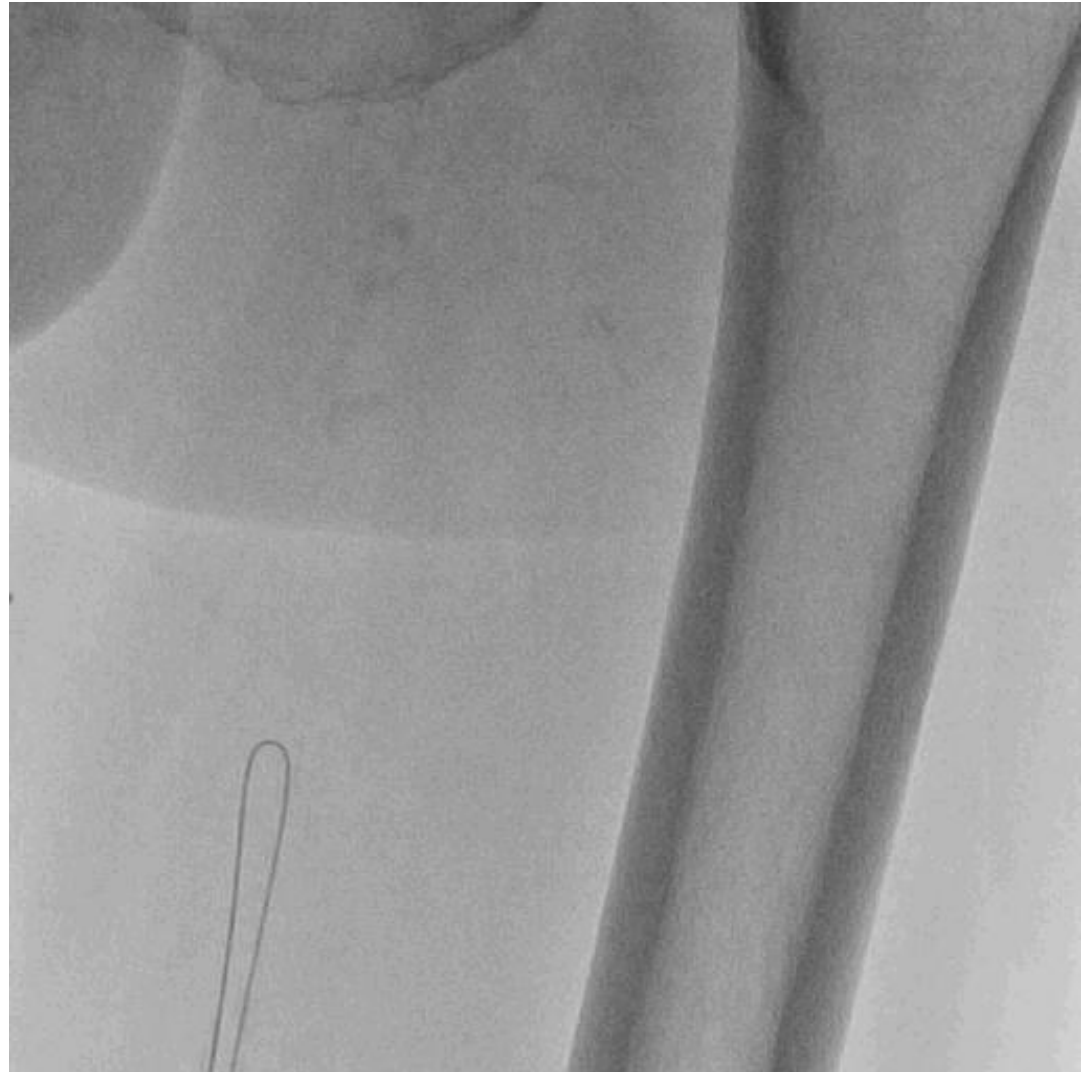
Access

- Right popliteal
 - Angiographic guidance
 - Micro-puncture needle
 - 6F sheath

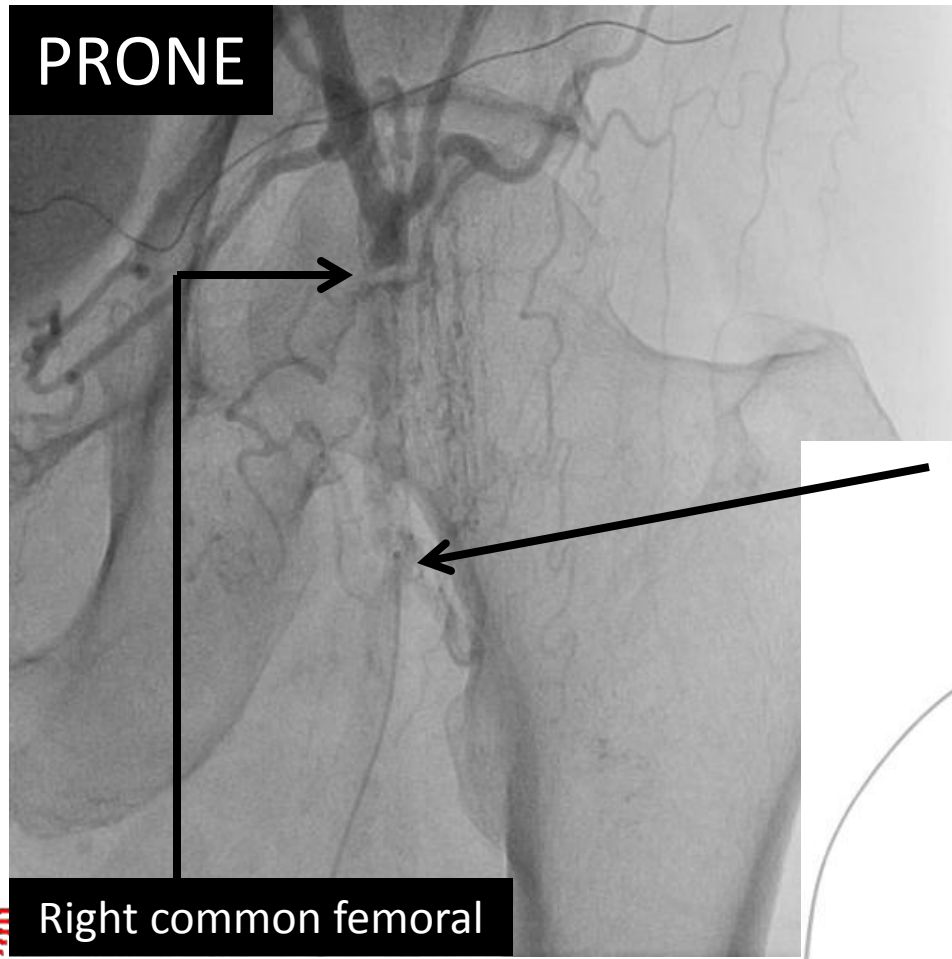


Intervention

- Initial retrograde knuckle wiring attempt



Intervention



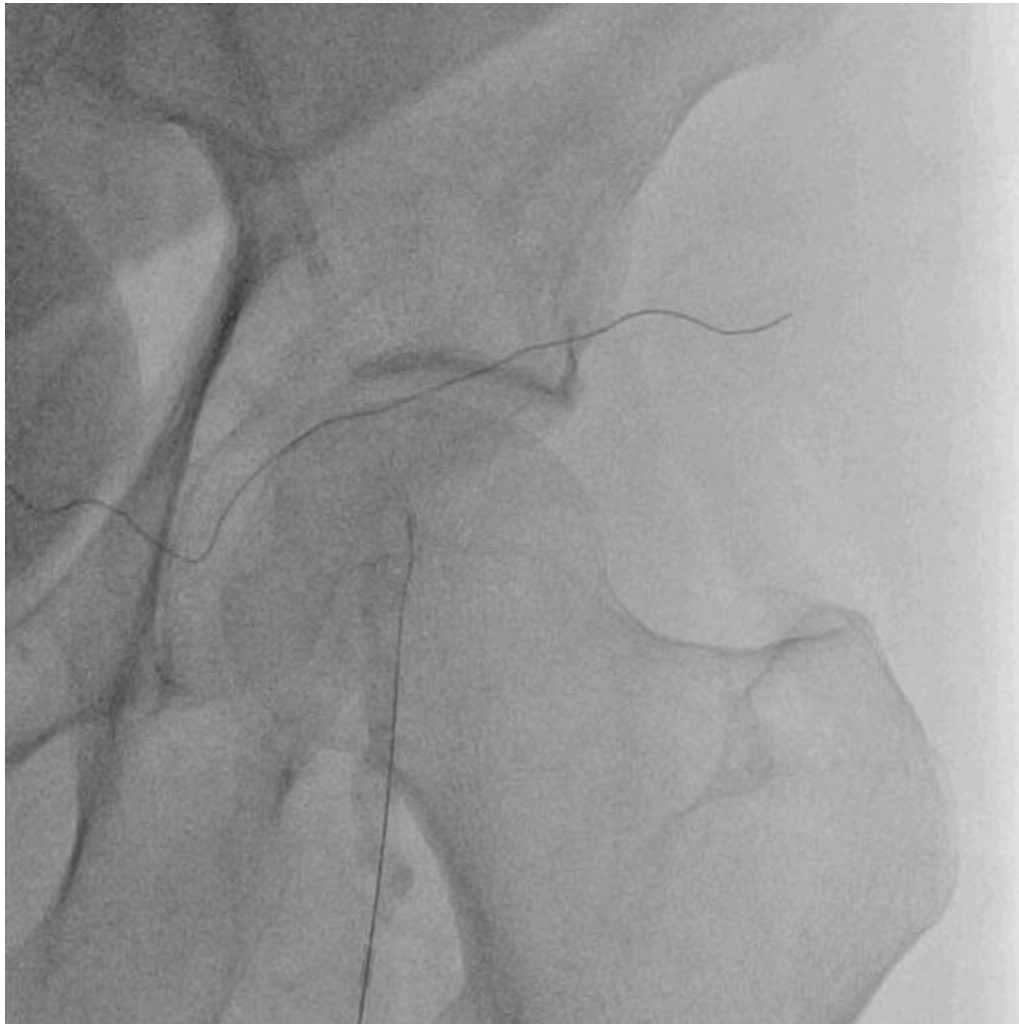
- Viance™ crossing catheter passed over Confianza Pro 12 guidewire



Intervention



Intervention



- Intraluminal position angiographically confirmed
- 0.014" guidewire advanced

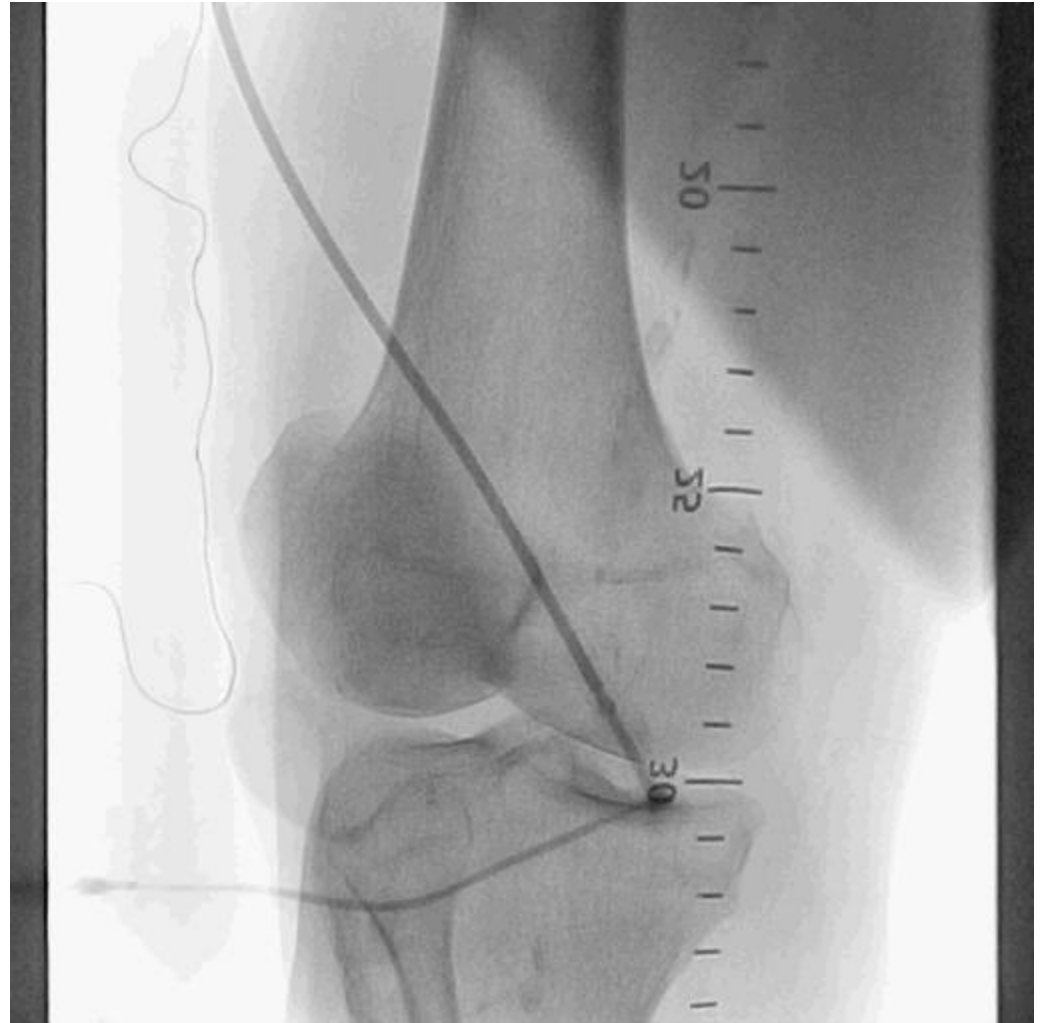
Intervention

- Angled 0.035" microcatheter advanced to pass 0.014" guidewire into left antegrade 90cm sheath



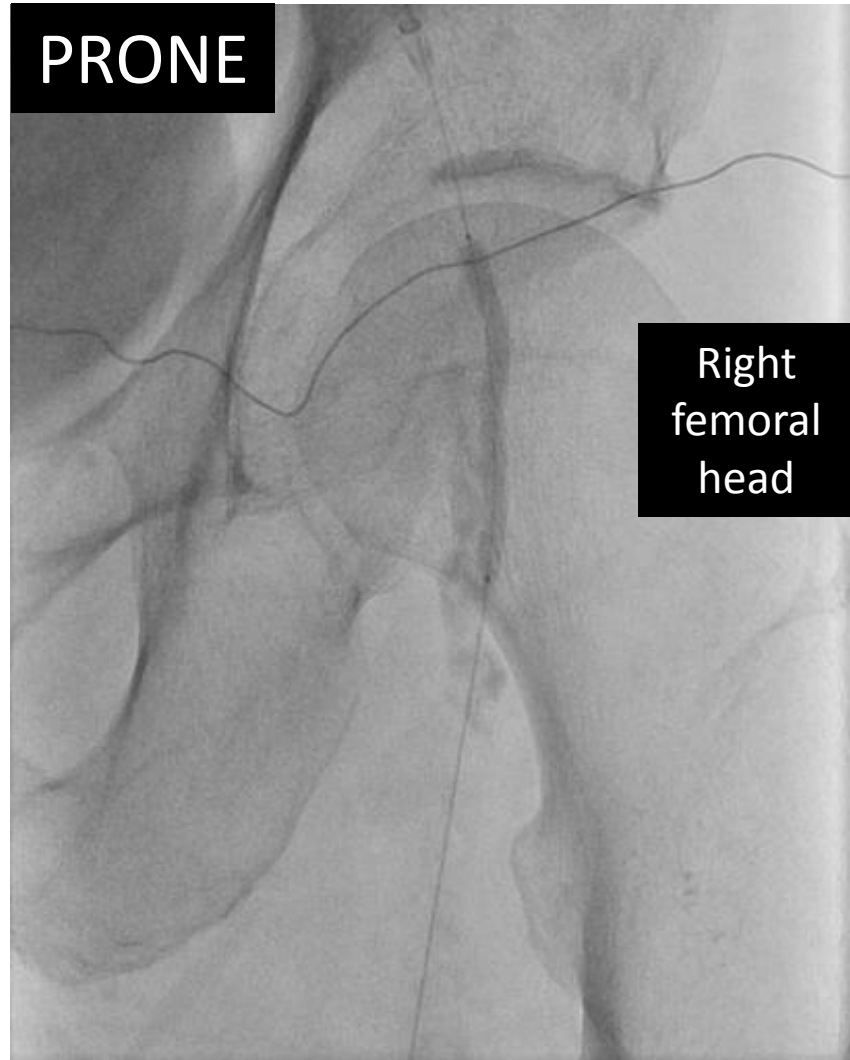
Intervention

- 0.014” guidewire externalized from left femoral access sheath
- Patient remained in prone position for duration of intervention

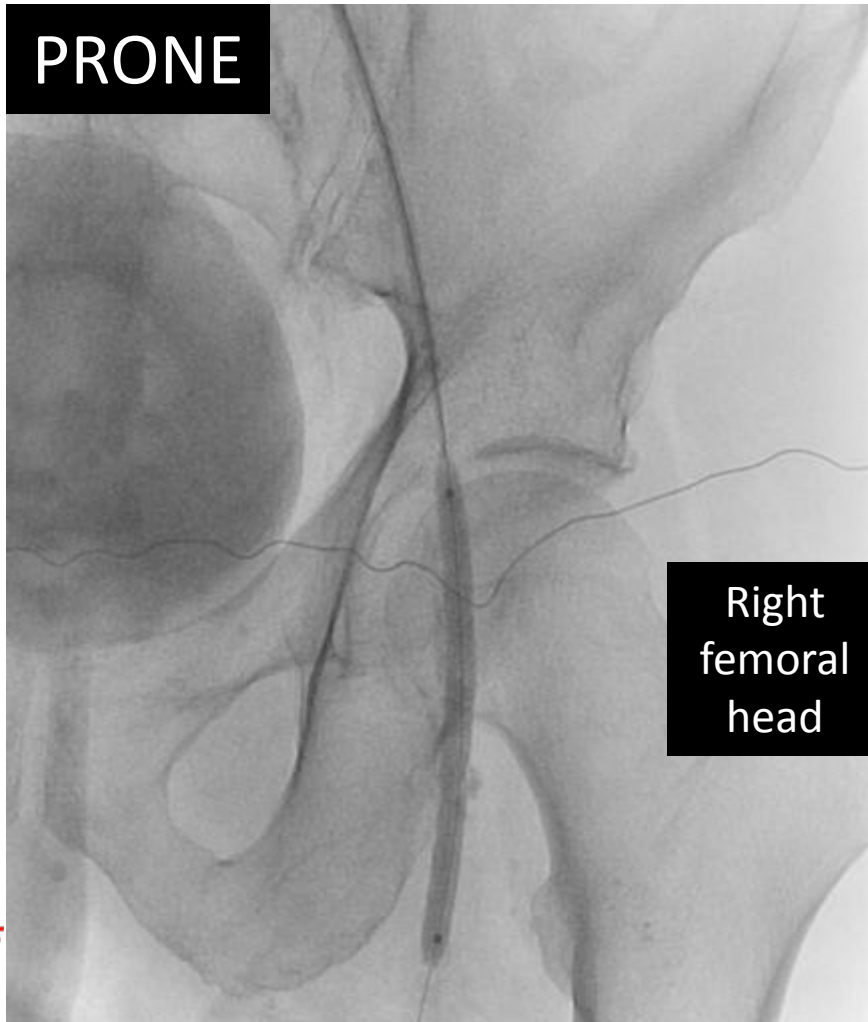


Intervention

- 3.0 x 40mm scoring balloon passed antegrade
- Right common femoral lesion pre-dilated to 10atm



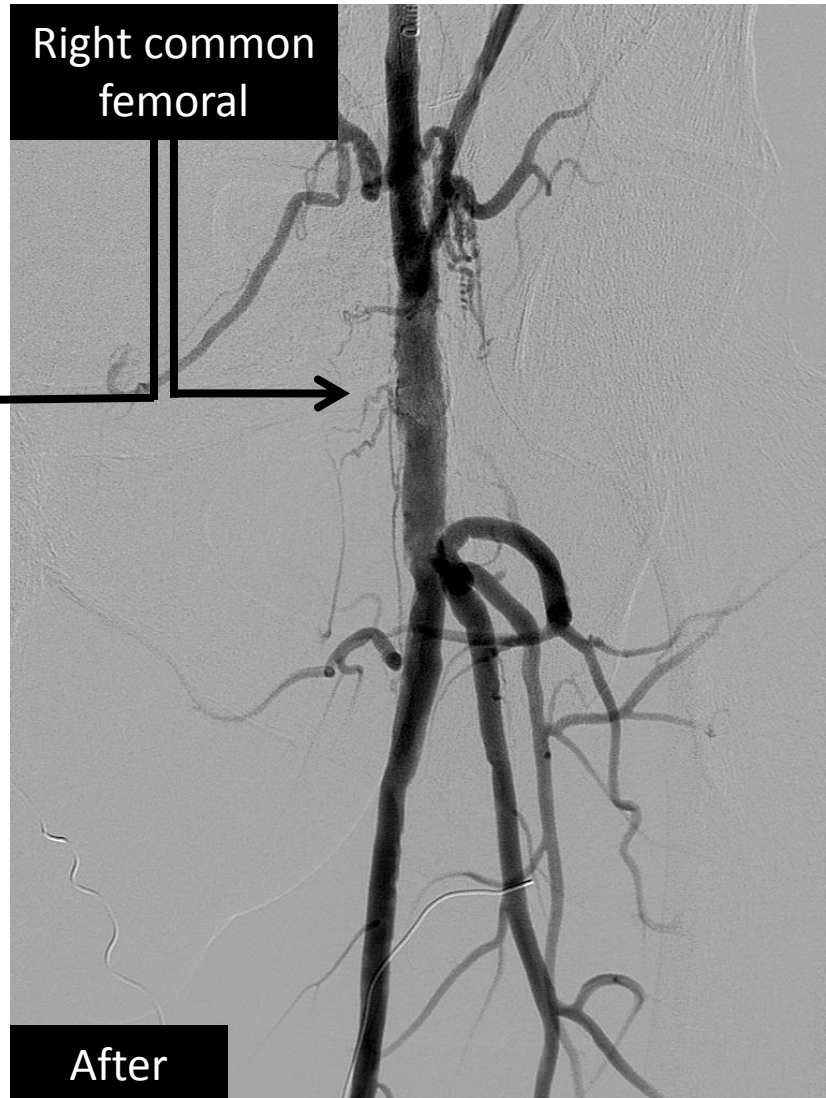
Intervention



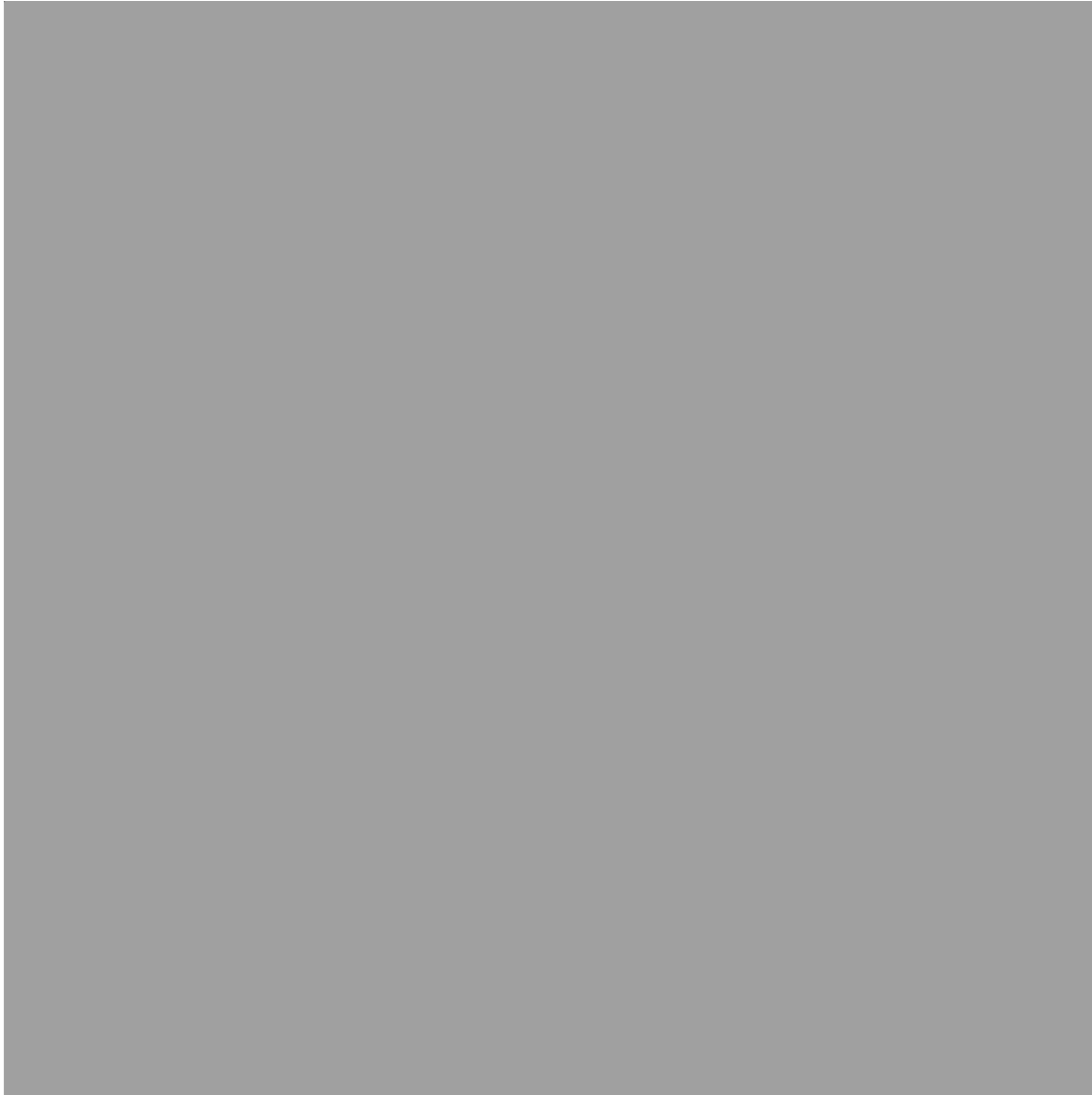
- 0.014" guidewire exchanged for 0.035" guidewire
- 6.0 x 80mm balloon passed antegrade
- Right common femoral angioplasty to 8atm

Intervention

- Final result:



Intervention



Follow-up

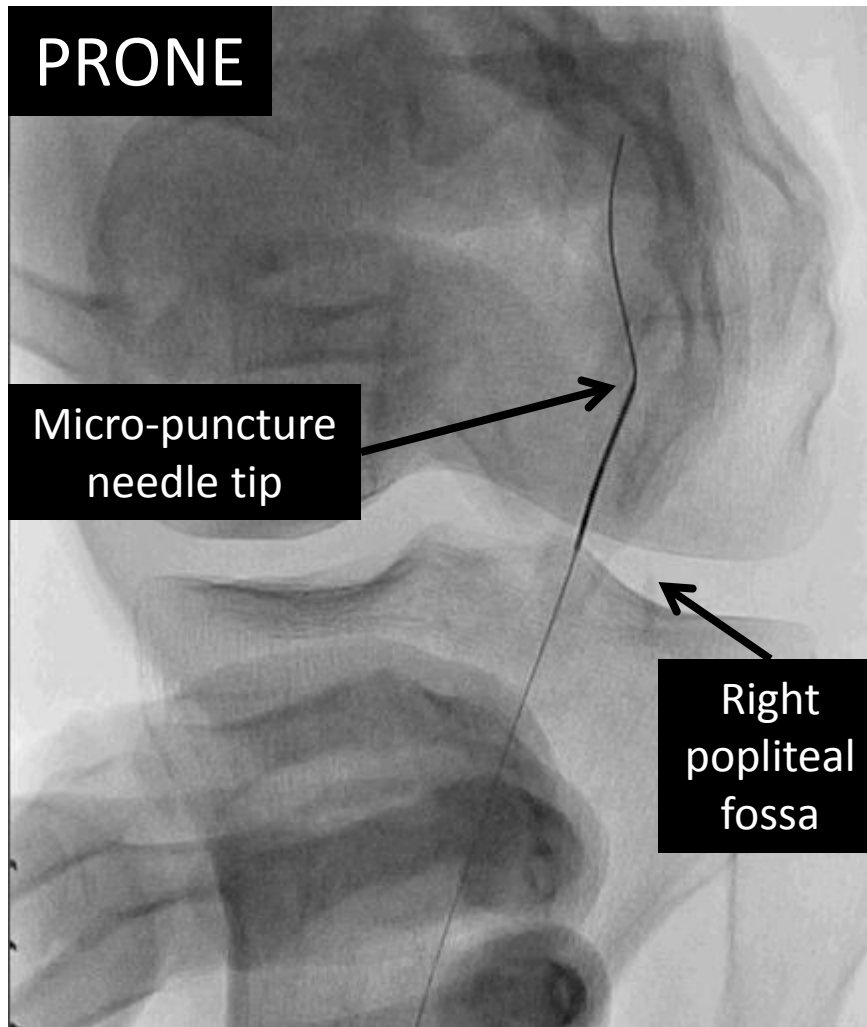
- No procedural complications
- At six-month follow-up, patient reported marked improvement in right lower extremity claudication

Conclusions

- Common femoral lesions merit surgical consideration.
- Retrograde approach can be considered in complex lesions where an antegrade approach may otherwise carry a very high risk for complications.
- Retrograde popliteal treatment of a common femoral lesion is feasible and safe in appropriately selected patients.



Wired R popliteal artery



Viance crossed

