



# SUCCESSFUL ENDOVASCULAR RETRIEVAL OF A FRACTURED PIGTAIL CATHETER

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## BACKGROUND

- Peripheral vascular angiography is routinely performed to diagnose and treat peripheral artery disease.
- It's a low risk procedure with few complications. Fracture of a pigtail catheter (PC) has not been reported thus far in literature.

## CASE DESCRIPTION

- A 72-year-old man with Rutherford class III Chronic limb ischemia was brought to the catheterization lab for an elective angiogram.
- After obtaining left common femoral artery (CFA) access, a PC was introduced through the sheath to perform abdominal aortography with bilateral iliofemoral angiography.
- In process of advancing PC over the highly tortuous and calcified aortic bifurcation, the PC got stuck in right common iliac artery (RCIA). (Figure 1)
- An attempt was made to pull back the PC to replace it with a hydrophilic catheter, however, the PC snapped and about 6 cm portion was left over the guidewire, stuck in the RCIA.
- The sheath was then upsized to 7F but an attempt to snare the PC remained unsuccessful.

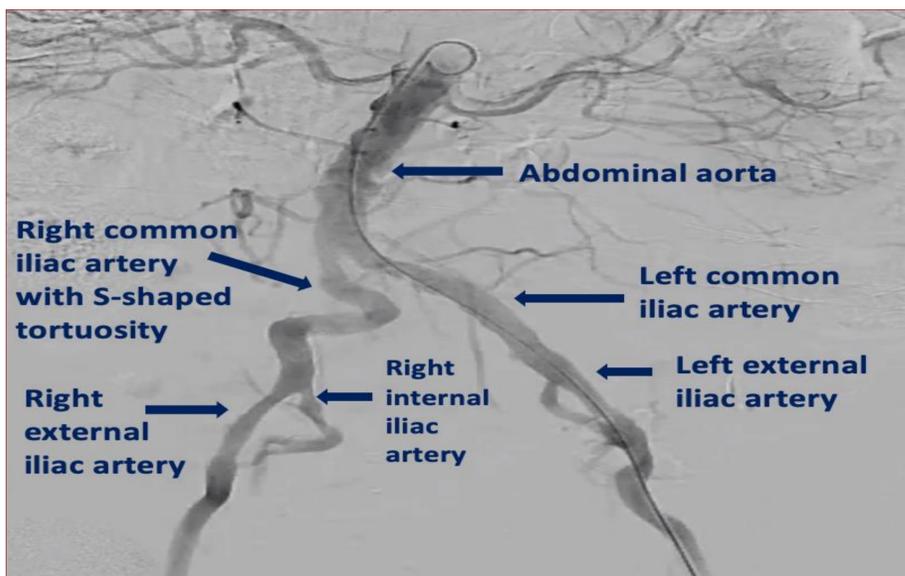


Figure 1: Baseline aortogram. Abdominal aorta is calcified. Right common iliac artery is heavily calcified with S- shaped tortuosity. It has 40% ostial stenosis. Left common iliac artery is calcified with luminal irregularities.

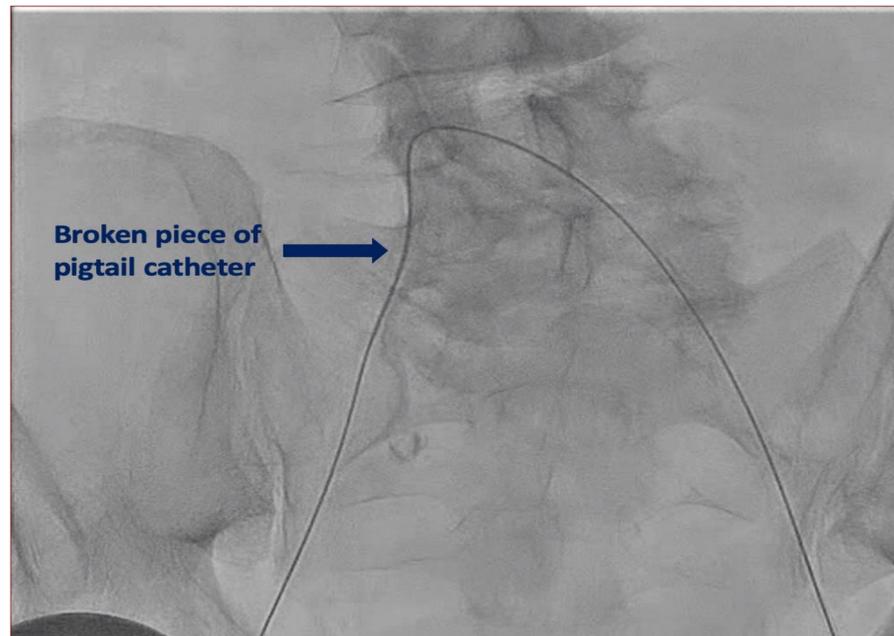


Figure 2: Cine image showing broken piece of pigtail catheter stuck in the tortuous right common iliac artery (RCIA)

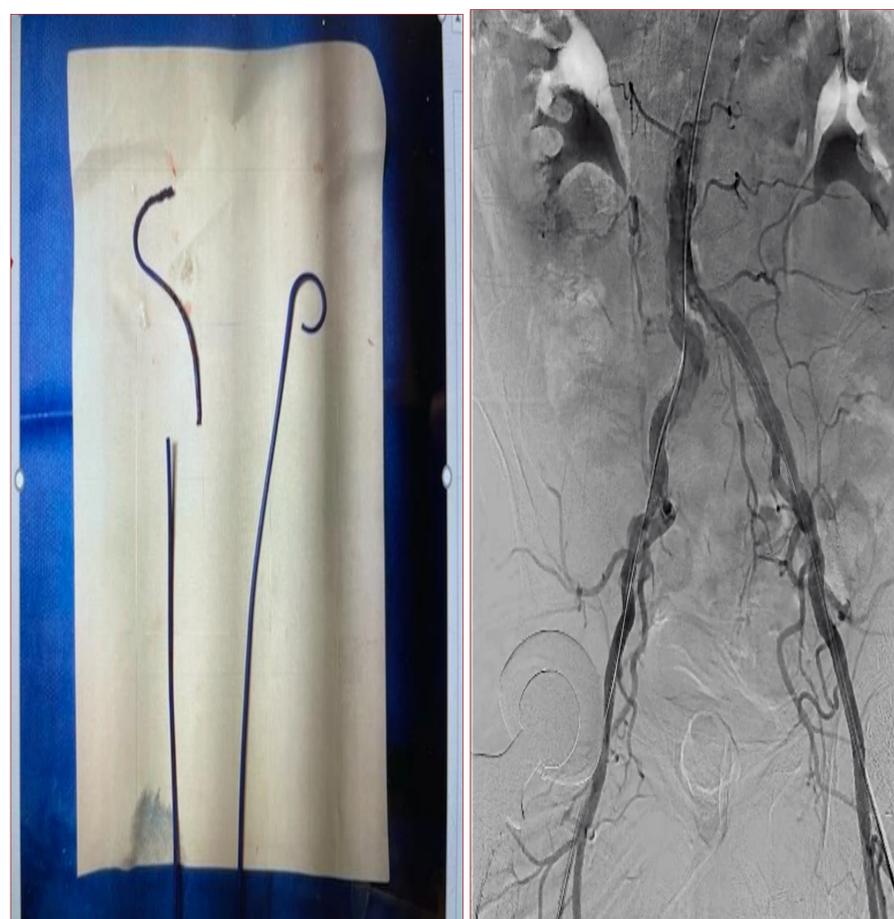


Figure 3: Retrieved broken pigtail catheter

Figure 4: Final angiogram post RCIA stenting

## DECISION MAKING

- Afterwards, right CFA access was obtained and a 23 cm long 7F sheath was introduced with only 7-8 cm of the sheath introduced inside the artery.
- The guidewire that was already in place across the broken pigtail catheter was pulled and externalized through the right CFA sheath.
- Once we had equal wire on both right and left flossing the body from left CFA all the way back to the right CFA, the sheath and the dilator were advanced all the way up into RCIA until these were wedged in the PC and pushed it out of the lesion where it was stuck.
- After that, we removed the dilator and advanced a 65 cm long 5F glide catheter from the right side all the way up and over the aortic bifurcation until the glide catheter pushed the piece of the pigtail all the way out of the body through sheath on the left side.
- We took final angiogram that showed small dissection in the area of RCIA where the PC had been stuck. It was successfully fixed with a drug eluting stent.

## DISCUSSION

- There are few case reports that describe different techniques such as goose neck snares and PC snares to retrieve dislodged endovascular foreign bodies (atrial leads and guide wires etc).
- This case is unique because in all prior reported cases other equipment besides the catheter broke off. Also we never lost our wire position across the broken PC. This was crucial to extract it by externalizing the floppy end of the wire.
- In this case, we initially tried to retrieve the PC by placing a bigger sheath and attempting to snare the broken PC. However, since the PC was so wedged in the right CIA, we feared that the snare itself might further break the pigtail into two and thus complicate the situation further.
- This led us to obtain contralateral access and then advance the sheath and dilator all the way to the wedged PC and successfully push it out of the lesion.

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