

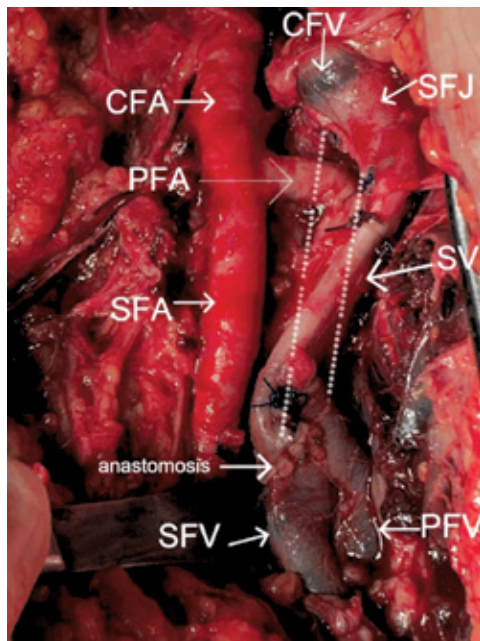
VASCULAR IMAGE

Anomalous anatomy results in a major bleed following dialysis catheter placement: bleeding control and reconstruction of the common femoral vein with a single anastomosis

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CFA: common femoral artery SFA: superficial femoral artery PFA: profunda femoral artery CFV: common femoral vein SFV: superficial femoral vein PFV: profunda femoral vein SV: saphenous vein SFJQ saphenofemoral junction

dot-line: original course of the ligated and divided common femoral vein

A 75 year-old female patient was admitted with acute renal failure. Following an attempt to place a dialysis catheter in the right femoral vein, the patient developed a large groin and thigh hematoma and became hemodynamically unstable despite application of pressure and appropriate fluid resuscitation. The catheterisation attempt was done by the treating nephrologist without ultra-sound guidance.

The patient was rushed to the operating theater. Vessel control was obtained, and a large tear was noticed in the profunda femoris artery (PFA). The PFA was arising from the medial aspect of the common femoral artery (CFA). Usually, the disposition and course of the vessel is posterolateral to the CFA.

The common femoral vein (CFV) had to be divided and li-

gated just proximal to its bifurcation to access the injured PFA. A bolus of IV heparin was administered (80 units/kg) after the PFA repair. An end to end reconstruction of the CFV was not possible because of significant length loss. Thus, we decided to restore the CFV continuity using an in-situ saphenous vein graft. The saphenofemoral junction was preserved and the saphenous vein was mobilized and anastomosed with the distal CFV stump. This was a successful single anastomosis reconstruction the CFV.

This case highlights that anatomical landmarks are not enough to guide central venous access. The anomalous medial position of the PFA, just posterior to the common femoral vein (CFV), lead in our case to the accidental cannulation and subsequent dilation of the PFA with a 12F sheath. Recommendations for the use of ultra-sound guidance¹ need to be followed to avoid such disastrous complications.

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REFERENCE

- 1 Practice Guidelines for Central Venous Access 2020: An Updated Report by the American Society of Anesthesiologists Task Force on Central Venous Access. *Anesthesiology*. 2020 Jan;132(1):8-43.