Femoral Artery Dissection after Adductor Canal Block

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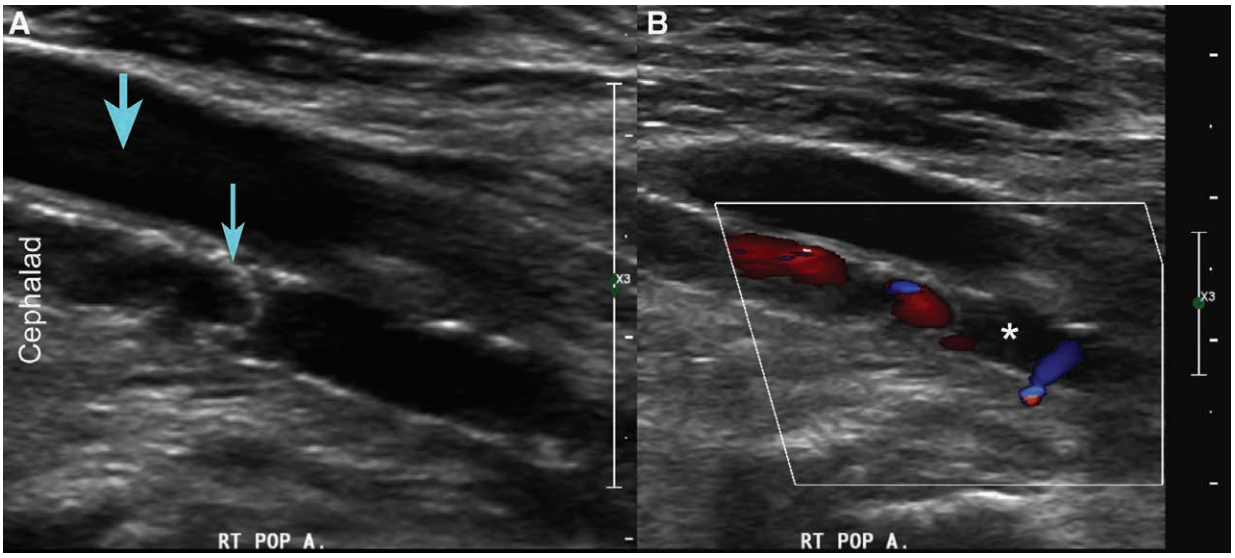

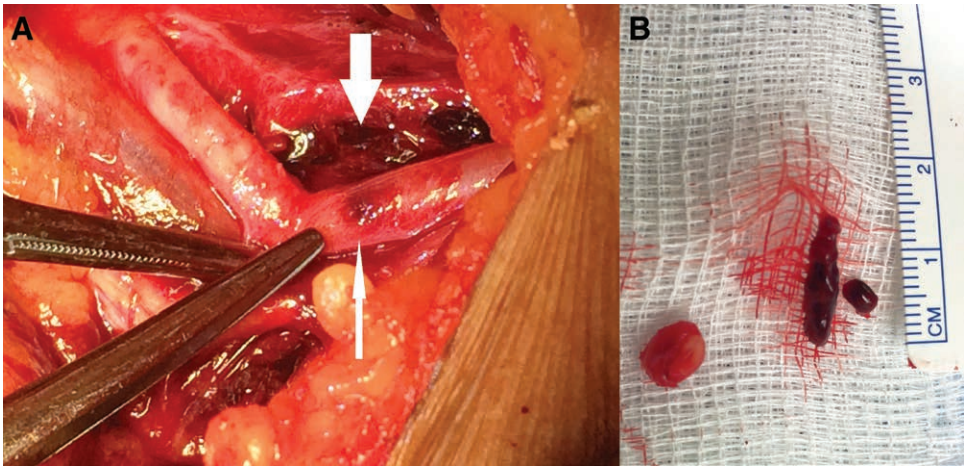

After an uneventful total knee arthroplasty under spinal anesthesia and ultrasound-guided continuous adductor canal block, the absence of distal pulses was noted in the operative leg. An arterial duplex scan (*top image*, panel *A*) demonstrated a femoral artery dissection flap (*thin arrow*) with a false lumen (*thick arrow*). Color Doppler demonstrated an absence of arterial flow distal to the dissection (*top image,* panel *B*; *asterisk*). During emergent thrombectomy and arterial repair, a puncture site of the Tuohy needle was noted on the femoral artery (*thin arrow*; *bottom image*, panel *A*), with perivascular hematoma (*thick arrow*; *bottom image*, panel *A*) and an intravascular thrombus (*bottom image*, panel *B*). The patient subsequently regained limb perfusion.

Inadvertent vascular puncture is a known complication of peripheral nerve blockade. The use of ultrasound guidance for peripheral nerve blockade improves safety and reduces the risk of vascular puncture.[1] The rate of vascular puncture after femoral nerve blockade is 1.1%;[2] ultrasound-guided adductor canal block is considered safe, and vascular complications, including hematoma and pseudoaneurysm formation, appear to be rare.[3]

This image shows that vascular puncture during peripheral nerve blocks may be associated with important

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complications, and underscores the importance of routine surveillance for adverse vascular events.

Vascular puncture should prompt frequent assessment of limb perfusion, to avoid missing time-sensitive, limb-threatening complications, and should be considered in the differential diagnosis of limb ischemia after peripheral blocks, prompting emergent vascular consultation.

Competing Interests

The authors declare no competing interests.

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