



# Femoral-popliteal bypass graft: a caveat when performing an adductor canal block

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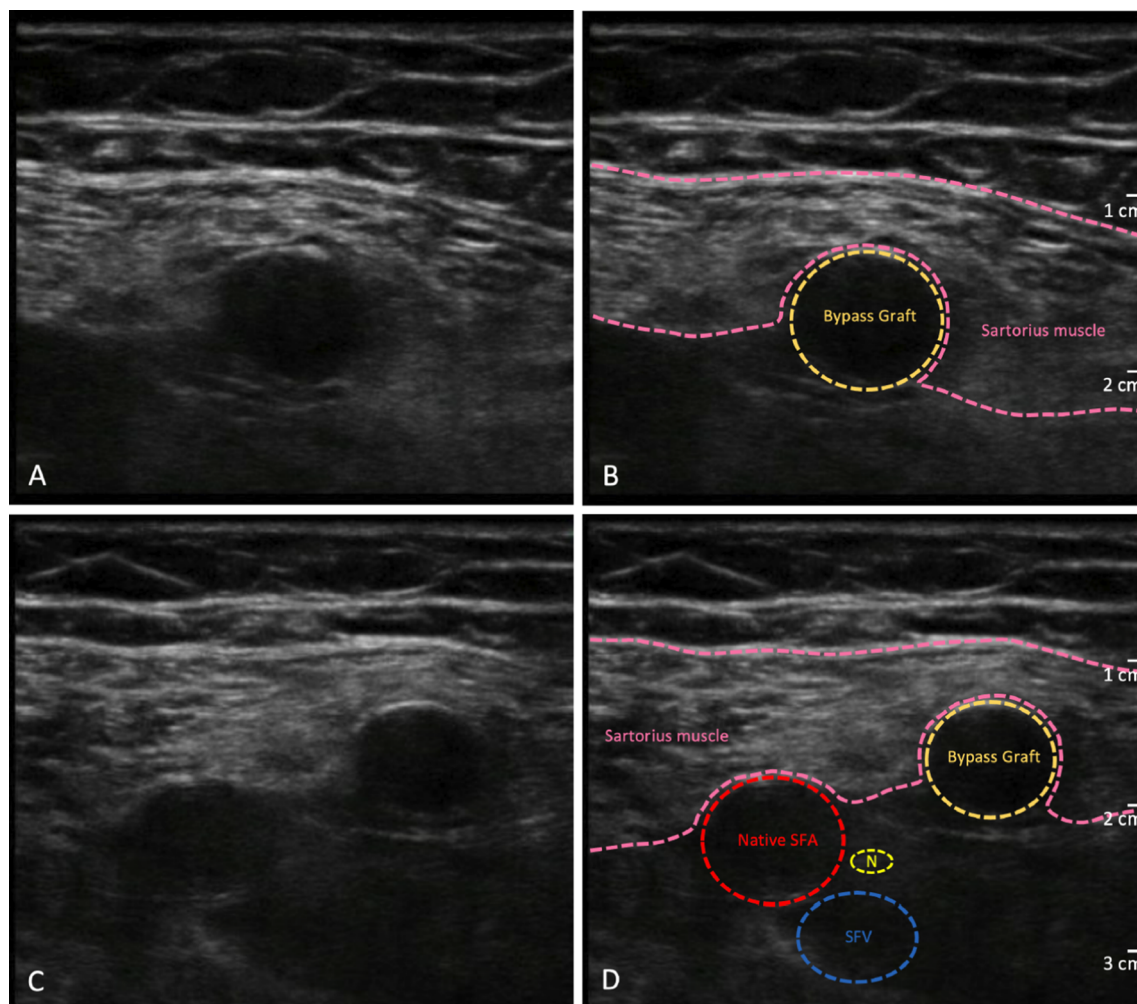
The adductor canal block (ACB) aims to anesthetize numerous nerves, including the saphenous nerve, for postoperative analgesia for lower extremity surgery. The superficial femoral artery (SFA) and sartorius muscle are critical sonographic landmarks for this block. While performing an ACB in a patient with a history of femoral-popliteal bypass grafting (who consented to publication of this report), the large, pulsatile lumen of the bypass graft deep to the sartorius muscle was initially misidentified as the native SFA (Figure, panels A, B). Nevertheless, when scanning proximally and distally, the pulsatile structure's relationship to the sartorius muscle failed to change as expected (from the posterior aspect of the muscle proximally to the anterior aspect distally). After increasing the ultrasound depth, less intense colour-flow

Doppler signals were observed deep to the graft. Proximal and distal scanning of these structures revealed them to be the native SFA and superficial femoral vein (Figure, panels C, D). This facilitated successful ACB, providing excellent postoperative analgesia.

Anesthesiologists should be familiar with both the normal anatomy and congenital or acquired variations for the blocks they perform. The presented images represent a reverse autologous graft with tunnelling deep to the sartorius muscle. Nevertheless, the sonographic appearance will likely differ dramatically with graft type (autologous, *in situ*, synthetic), tunnelling path, and surgical technique. Thus, it is critically important for the anesthesiologist to understand the surgical approach used during a previous femoral-popliteal bypass graft and comprehensively scan with ultrasound before performing an ACB in the setting of a prior femoral-popliteal bypass graft.

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**Figure** Large pulsatile structure identified as femoral-popliteal bypass graft (gold) deep to sartorius muscle (pink) (panels A, B). Native SFA (red), SFV, and saphenous nerve (yellow) visualized with increased ultrasound depth (panels C, D). N = saphenous nerve; SFA = superficial femoral artery; SFV = superficial femoral vein

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