Rotated superficial femoral artery patch after common femoral artery endarterectomy

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BACKGROUND

Following common femoral artery (CFA) endarterectomy, patch angioplasty is recommended to prevent restenosis. Autologous patches are less likely to become infected and have longer patency than synthetic patches.¹ Where the superficial femoral artery (SFA) is occluded, endarterectomised segments provide suitable patches.² SFA patches have also been used successfully in arterial reconstruction after

removal of infected prosthetic material.³ We report a technique using endarterectomised SFA as an autologous patch in CFA endarterectomy. This simple technique maintains the integrity of the saphenous vein and obviates the use of synthetic materials.

TECHNIQUE

The occluded SFA is transected at an appropriate distance distal from the femoral bifurcation (Fig 1A). A longitudinal arteriotomy and endarterectomy of the SFA is then performed (Fig 1B). The SFA segment is rotated 180° on its transverse axis (Fig 1C and Fig 2) and anastomosed to the endarterectomised CFA to provide a patch for closure (Fig 1D). The patch can also be used to cover the origin of the endarterectomised profunda.

Figure 2 Intraoperative photograph of the flap being rotated

Figure 1 Using endarterectomised superficial femoral artery (SFA) as an autologous patch in common femoral artery endarterectomy: SFA is divided (A), SFA endarterectomy (B), patch is rotated (C) and anastomosis is completed (D)

DISCUSSION

Autologous endarterectomised SFA is an established alternative to vein and synthetic patches, and performs as well as vein for profundoplasty.² The SFA is conveniently accessible during surgery,⁴ and is ideal where removal of infected grafts or patches is required, where the long saphenous vein is not available or should be preserved and where the SFA is occluded.

This technique expands on Feldhaus *et al*'s technique for profundoplasty.⁵ To our knowledge, this is the first time that endarterectomised SFA rotated 180° on its transverse axis has been used to provide a CFA patch.

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