Figure 4 Normal SQUASH.

Figure 5 Abnormal SQUASH.

Figure 6 Abnormal SQUASH.

and after the carotid cross clamping. Reduction in grip strength is used to determine the need for shunting. We noticed a decrease in the frequency and/or amplitude of the waveforms during episodes of hypoperfusion (Figs 5 and 6) in 2 patients out of 92 who were shunted and made a full recovery. There were no adverse outcomes intra-operatively using this technique.

DISCUSSION

CEA is potentially complicated by cerebral hypoperfusion resulting in irreversible neurological deficit. Intra-operative

indicators of cerebral hypoperfusion or hypofunction like transcranial Doppler, EEG, infrared spectroscopy, shunt pressures or awake-patient monitoring can be used to determine the need for selective shunting. Alternatively, the SQUASH provides a visual representation of grip strength in real time and is a direct measure of cortical sensorimotor integrity, which indirectly measures cerebral perfusion. It is easy to assemble, inexpensive, re-usable and non-invasive. Whether criteria to consider shunt placement can be derived from the waveform requires future study. Until then, we believe this will remain a promising means of non-invasive cerebral perfusion monitoring during CEA under local anaesthesia.

Protecting the distal anastomosis in diabetics undergoing dorsalis pedis bypass

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BACKGROUND

Peripheral arterial disease in diabetic patients is characterised predominantly by long segmental occlusion of the tibial arteries with patent segments of the dorsalis pedis artery (DPA). This allows distal bypass to the DPA using vein grafts.¹ Wound complications are frequent due to the presence of foot tissue loss and oedema.² Wound dehiscence with exposure of the DPA anastomosis is a serious postoperative complication which could lead to limb loss.³ This report describes specific measures that reduce the above risk.

TECHNIQUE

Strict leg elevation for 48 h prior to surgery is of paramount importance. Occasionally, epidural analgesia is required in patients with severe rest pain in order to achieve this. The position of the DPA is identified and marked using a hand-held Doppler, if a signal is obtainable. The incision is made 1.5 cm medial and parallel to the DPA (overlying the extensor hallucis longus tendon; Fig. 1). Dissection is continued down to the deep fascia prior to flap mobilisation to produce a lateral fascio-cutaneous flap. The DPA is dissected and the bypass is performed using a reversed autologous vein graft. The graft is tunnelled laterally through the interosseous membrane. Skin closure is performed with polyglactine 3/0 without fascial approximation. Leg elevation is maintained until skin healing is achieved.

Figure 1 Postoperative picture of a patient who underwent a right popliteal to dorsalis pedis artery bypass and amputation of a gangrenous hallux. Incision is 1.5 cm medial to the dorsalis pedis artery (solid line). The dotted line shows the pathway of the vein graft and X marks the level of the graft penetrating the interosseous membrane.

DISCUSSION

The authors have used the above measures in six patients without encountering any wound complication. In the event of wound dehiscence, the graft will still be covered and protected by the lateral fascio-cutaneous flap.

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A simple, safe and cost-effective technique for closure of difficult laparoscopic port sites

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BACKGROUND

Port site herniation and Richter's type of strangulation of the bowel is a recognised complication following laparoscopic procedures.^{1,2} Hand suturing of port sites can be difficult, especially in obese patients. A simple, safe, quick and cost-effective technique is described.

Figure 1 Diagrammatic illustration of the technique.

TECHNIQUE

After removal of the port, the modified aneurysm needle (bent to a 'J' shape), threaded with an appropriate suture, is passed into the abdomen through the port site incision. The needle is then turned 90° and the eye is forced through the peritoneum and sheath from inside the abdomen, by pulling on the handle at an angle (Fig. 1A). The eye of the needle with the suture loop emerges. One arm of the suture loop is drawn out. The instrument (still threaded) is then drawn back into the peritoneum cavity, turned 180° and forced through the opposite side sheath, as described above. The suture is then withdrawn to free the needle (Fig. 1B). The tip is then drawn back into the peritoneal cavity and needle eased out.

DISCUSSION

Various techniques have been described: some require expensive disposable instruments,³ whilst others need intraperitoneal threading of the needle, which can be time consuming and risk injury to intraperitoneal structures.⁴ Aneurysm needles are readily