cumbersome and difficult to fabricate, and therefore expensive.^{1,2} EAM stents can be created inexpensively from materials commonly available in wards.²

TECHNIQUE

The needle cap is removed from a 31G insulin syringe and cut at the junction where the cap narrows (Fig 1). The cap stent has a 5mm internal diameter, 6mm external diameter and is 8mm long. After infiltration of local anaesthesia with adrenaline, an incision is made into the tissues over the EAM. The cap is gently inserted into the external auditory canal through the EAM. The external compression keeps the cap stent in place (Fig 2). The canal is irrigated with sterile saline through the stent to remove clots that may arise over the first 48 hours.

Figure 2 In situ cap stent in EAM

DISCUSSION

The use of a needle cap, suitably cut and inserted, proves effective in short term EAM stenosis management, with the least discomfort and minimal cost (less than R2 [£0.10]).^{3,4} The large bore provides ventilation of the canal, with subjective improvement in hearing when compared to occlusive stents. This technique has been successfully used for temporary management of stenosis of the EAM at hospital and outpatient clinics. It is easy to replace as needed and can be used as a staged procedure for serial enlargements of the EAM to the desired diameter before formal stenting or repair.

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Pledget reinforcement and bidirectional compression as adjunctive techniques for suture-based closure of arterial cannulation sites in percutaneous endovascular aneurysm repair

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BACKGROUND

Percutaneous endovascular aneurysm repair (pEVAR) is performed using suture-based closure devices. Two novel techniques are described here to obtain better haemostasis.

TECHNIQUE

Following percutaneous arterial access for EVAR, suture-based closure devices (two ProGlides® Abbot Vascular, Santa Clara, CA) are

Figure 1 a) The threads of the suture-based closure device are passed through the Teflon pledget with the help of an 18g needle. b) The pledget is pushed on to the puncture site and the knot is made to fix the pledget on to the puncture site.

deployed as a pre-close technique.¹ If complete haemostasis is not achieved, then the following adjunct procedure/s is/are employed.

Pledget reinforcement:

A square (7.9mm) Teflon pledget is needled in two places (one at a time) with an 18g needle, and each pair of sutures is passed through the pledget (Fig 1a). The needle is withdrawn as shown in the figure and the pledget is pushed through the skin puncture site using surgical forceps. The knot pusher is then used to push the pledget

close to the puncture site. A second knot is tied over the pledget (Fig 1b), and it is secured over the arterial puncture site by six throws.

Bidirectional compression:

A small gauze swab is wound around the closure device sutures (Fig 2a), which are used to guide the swab through the soft tissue to the puncture site. An artery forceps is used to clip the sutures by pulling them up on to the swab to compress the puncture site for a period that would mirror the application of manual compression (Fig 2b).

Figure 2 a) A gauze swab is wrapped around the threads of the closure device. b) Bidirectional compression: the thread is pulled upwards and the gauze swab is pushed downwards compressing the tissues and the swab against the puncture site.

DISCUSSION

This Teflon pledget technique helps to seal the puncture site on top of ProGlide® sutures. The bidirectional compression described here allows focal application of pressure to the puncture site without restricting the arterial lumen or compromising neighbouring structures.

Reference

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Use of Alexis® wound retractor in minimally invasive parathyroid surgery

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BACKGROUND

As imaging modalities for localising parathyroid adenomas have improved, this has allowed for 'minimally invasive' parathyroid surgery. This creates a new challenge of maintaining good access during surgery. Traditional techniques of retraction for this surgery are with a self-retaining retractor. We have successfully been using

Figure 1 Photographs of the extra-small Alexis® wound retractor: a) the retractor before use; b) the retractor in use during minimally invasive parathyroid surgery