A cost effective approach to laparoscopic transabdominal preperitoneal hernia repair

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BACKGROUND

Laparoscopic inguinal hernia repair is a well described technique. However, mesh fixation with staples has been implicated as a cause of chronic groin pain.¹ Recent studies have shown low rates of postoperative pain and hernia recurrence when using a self-adhesive mesh such as Parietex ProGrip™ (Covidien, Dublin, Ireland).²⁻⁴ Owing to the

adhesive nature of the mesh, manoeuvring it into the correct position can be challenging as it adheres to the tissue firmly. We describe a technique that allows easy positioning of the mesh, saving operative time and the use of staple fixation devices.

TECHNIQUE

A standard transabdominal preperitoneal operative technique is used. Prior to mesh insertion, the palmar aspect of a large sterile surgical glove is cut to the dimensions of the mesh, covering the adhesive surface (Fig 1). The mesh is rolled, leaving the medial aspect slightly exposed, and a suture placed centrally to prevent unravelling (Fig 2). After insertion, the exposed medial aspect adheres above the pubic symphysis and the retaining suture is cut (Fig 3). The glove and mesh complex is unravelled. The glove allows the mesh to slide over its

Figure 1 The palmar aspect of a large sterile surgical glove is cut to size, thereby covering the adhesive side of the mesh.

Figure 2 The mesh is rolled to allow easy placement in the abdomen. A central suture prevents the mesh from unravelling prior to positioning.

Figure 3 The exposed medial aspect of the mesh is positioned prior to removal of the central suture.

Figure 4 The surgical glove is removed after the mesh has been positioned correctly.

surface without adhering to the tissue. When the optimum position is reached, the glove is extracted (Fig 4). The remainder of the procedure is performed as standard.

DISCUSSION

This technique allows fast placement of the mesh and avoids the use of a stapling device. Cost analysis performed at our institution revealed this to be a cheaper method than using a standard mesh and fixation device.

References

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Radial artery grafts for lower limb revascularisation

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BACKGROUND

Reoperative distal bypass surgery poses unique challenges when autogenous veins are unavailable or inadequate.¹ The radial artery has proved to be an excellent conduit for coronary artery bypass² but it is rarely used in lower extremity revascularisation. We describe a technique of harvesting the radial artery for lower limb salvage.

TECHNIQUE

Allen's test and duplex ultrasonography are performed to provide information on the circulation of the hand and conduit quality. The radial artery is harvested from the wrist to the elbow via a curvilinear incision using the ulnar border of the brachioradialis muscle as a landmark or intraoperative mapping by ultrasonography. The radial artery should be handled carefully because it is prone to vasospasm, which may be minimised by using papaverine.³ There are a significant number of small side branches of the radial artery and these require careful

Figure 1 Use of the radial artery as a jump graft between the distal venous conduit and supramalleolar posterior tibial artery for an occluded femorodistal bypass

ligation using 4/0 Vicryl® sutures (Ethicon, Somerville, NJ, US). The proximal and distal ends of the radial artery are ligated with 5/0 Prolene® (Ethicon). The radial artery can then be prepared and anastomosed in a standard fashion as for any venous distal graft.

DISCUSSION

The harvesting of radial artery grafts is a useful and effective alternative technique to prosthetic or cryopreserved venous grafts for lower limb salvage.

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