Figure 1c Reconstructed image of the postoperative computed tomography angiogram demonstrating patency of external iliac arteries and three renal arteries

patch. Three size-matched ostia are fashioned in the arterial patch using skin punches and the three renal arteries are then anastomosed to the patch using fine interrupted vascular sutures (Figure 1a). The kidney is implanted by anastomosing the reconstructed arterial patch end to side to the recipient external iliac artery (Figures 1b and 1c).

DISCUSSION

The described reconstruction uses recipient arterial tissue to fashion an arterial patch. Refrigerator-stored deceased donor artery could also be used as an alternative. An important advantage of this technique is that the exacting anastomosis of small vessels can be performed meticulously on the back-table under cold conditions and this removes any time pressure from the surgeon. The subsequent recipient arterial anastomosis is more straightforward and quicker than alternative techniques where multiple renal arteries are implanted directly.

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Self-retaining retraction technique for axillary lymph node dissection for breast surgeons

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BACKGROUND

Breast cancer operations have continued during the COVID-19 pandemic. However, with junior doctors redeployed to cope with the anticipated change in service, we describe a novel approach to the 'assistant-free axillary clearance'. The Omni-Tract® (Minnesota Scientific, St Paul, MN, US) is a recognised retraction device for abdominal, inguinal and axillary access,¹ particularly for general and vascular surgery, and has even been described to assist in abdominoplasty.² It is a device commonly found and available in general theatres, but its use has not been documented for axillary access for breast surgeons.

TECHNIQUE

The Omni-Tract® arm is attached to the surgical table at the level of the contralateral shoulder. The angled arm (17.8cm x 40.6cm [3732]) is placed at the level of the clavicles with enough height to protect the anaesthetic airway. The patient is then formally prepped and draped. Next, the SnapClamp® blade holder (4040) is attached to the angled arm over a sterile drape and the splanchnic retractor

Figure 1 The angled arm and the splanchnic retractor

(5cm x 11.4cm [3201]) is then inserted (Fig 1). Access can be clearly seen in the final picture (Fig 2) with good exposure of the relevant anatomy: axillary vein, long thoracic nerve, thoracodorsal trunk. The clamp and blade are the only components that require decontamination, further reducing sterile services costs.

Figure 2 Exposure of relevant anatomy through retraction

DISCUSSION

This technique can be utilised if surgical assistance is unavailable and provides superb retraction for the un-assisted surgeon. It is also a useful training adjunct to allow excellent exposure for consultants to supervise surgical trainees.

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The extended external fixator kickstand for free and local flap reconstruction of the heel

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BACKGROUND

Heel defects requiring local or free flap reconstruction pose a significant reconstructive challenge. Pressure avoidance on the flap postoperatively is crucial to ensure success. Various authors have described the use of kickstands to ensure appropriate elevation, venous drainage and oedema control.^{1,2} Due to problems experienced with other techniques, we developed the extended kickstand described below.

TECHNIQUE

Using the Orthofix Galaxy™ Fixation system (Lewisville, Texas, US), two 6mm anteroposterior screws are inserted into the tibia along the safe corridor under image intensifier guidance. Large clamps along with 200mm, 300mm and 400mm carbon fibre rods are used to construct two parallel triangular frames with cross-link reinforcement to form a robust external fixator kickstand (Fig 1).

This layout was effective with the leg placed on a hard surface, such as the operating table. However, when placed on the ward bed, the frame sunk into the compliant mattress leading to flexion of the knee, dependency of the as well as and congestion and swelling. To combat this, a modified construct was created by extending the frame distally providing a broad, long base (Fig 2). This maintained elevation of the foot at all times. Degree of elevation can be adjusted as desired.

Figure 1 External kickstand fixator

Figure 2 Extended external fixator kickstand