Figure 1 Lateral and front views of figure-of-eight layer

Figure 2 Overlapping second layer

DISCUSSION

This provides adequate space for swelling following injury or manipulation using the readily available consumables. Splitting a cast or removing a backslab is also easier as scissors or a plaster saw can be used over the ACF with a lower risk of skin damage.

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Preparation of the internal mammary vessels as recipients for free flap breast reconstruction

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A video demonstrating this technique is available at:
<http://youtu.be/hq33kK-icFc>

BACKGROUND

When performing breast reconstruction with free flaps, the internal mammary artery and vein are commonly used as the recipient vessels.¹ They are consistent and reliable with a good calibre for anastomosis and they have bidirectional flow, so they can be used either superiorly or inferiorly. Alternative recipients include the thoracodorsal vessels of the subscapular trunk, and the perforating branches of the internal mammary artery and vein.^{2–4}

TECHNIQUE

Dissection and preparation necessitates removal of the third or fourth rib. Multilock retractors are used to retract the mastectomy skin flaps and improve exposure. The muscle overlying the rib is divided using cutting diathermy and retracted using a West self-retaining retractor. The periosteum is elevated using a Howarth periosteal elevator as well as both a left and right-handed Doyen rib elevator. Having removed the rib, the underlying periosteum can be removed carefully to reveal the internal mammary artery and vein(s) beneath. The vessels are then dissected further under the operating microscope.

DISCUSSION

The various techniques demonstrated in our accompanying video will enable quick and efficient preparation of the internal mammary artery and vein(s) as recipient vessels for free flap breast reconstruction. It is important to note that the use of these vessels can have implications for future coronary artery bypass. During dissection, care must be taken not to injure the pleura, as pneumothorax is a recognised complication. In the event that the internal mammary vessels are inadequate, the thoracodorsal vessels remain a useful 'lifeboat'.

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