Technical Section [TECHNICAL NOTES AND TIPS

The novel use of the Bradford Sling® in the postoperative care of pedicled latissimus dorsi flaps

Z Ahmad, R Choa, E Eltigani

University Hospitals Coventry and Warwickshire NHS Trust, UK

CORRESPONDENCE TO

Zeeshan Ahmad, E: zeeshan.ahmad@doctors.org.uk

BACKGROUND

The Bradford Sling® (Salitas, Knaresborough, UK) is used routinely in the postoperative care of hand surgery cases as well as in the management of burns and infections of the distal extremity. It reduces peripheral oedema, facilitates healing and allows mobilisation of the hand.

TECHNIQUE

We use the Bradford Sling® in the postoperative management of patients following pedicled latissimus dorsi flaps in selected breast reconstruction cases (Fig 1). Occasionally, at flap inset, the flap may be congested owing to a number of reasons including flap-defect mismatch, previous local surgery such as axillary clearance or sampling, radiotherapy and vessel fibrosis. Patients with a high body mass index have excess tissue in the axilla, which can cause significant pressure on the pedicle.

Figure 1 Clinical photographs depicting the skin paddle of the flap (left) and the Bradford Sling® (right) correctly suspending the upper limb, minimising pressure on the pedicle

Flap monitoring is generally performed on a routine basis (every 2–4 hours, as opposed to for free flaps, which require hourly flap observations in the first 48 hours after surgery, given that pedicled latissimus dorsi flaps have a more robust blood supply). Pressure on the pedicle can affect flap perfusion, worrying nursing and medical staff as well as the patient. Use of the sling in the first 48 hours following surgery in such cases maintains the pedicle length and minimises local pressure on the pedicle as well as local pressure in the axilla secondary to dissection and tissue swelling.

DISCUSSION

This simple, cheap, readily available and comfortable device can aid postoperative management and minimise patient anxiety while enhancing postoperative recovery. Although this technique is not new, it is a useful adjunct in the postoperative period for oncoplastic as well as plastic and reconstructive surgeons.

Fistuloplasty techniques for correction of juxta-anastomotic stenosis

TMY Kwok, AK Ramanathan

Gosford Hospital, NSW, Australia

CORRESPONDENCE TO

Trevor Kwok, E: tmyk@iname.com

BACKGROUND

Stenosis in autogenous arteriovenous fistulas is common. Many stenoses are better treated surgically than by endovascular means.¹ Surgical correction may involve reanastomosis, interposition grafting, flap or patch repair.^{1–3} We present two novel revision techniques that have been used successfully by us.

TECHNIQUE

In the Felix the Cat (orthogonal) fistuloplasty, the vein is incised longitudinally across the stenosed segment. This fistulotomy is closed transversely in a fashion similar to that used in Heineke–Mikulicz pyloroplasty. Closure in this manner expands the lumen (Fig 1).

The slide fistuloplasty is performed by making a curved oblique incision across the stenosis, which is continued beyond each end of the stenosis. The resulting flaps of vein are slid along each other longitudinally and then sutured together. This corrects the stenosis by overlapping the stenosing lesion with normal vessel (Fig 2).

DISCUSSION

Both techniques have been used by the authors with satisfactory results. For lesions diagnosed early, endovascular treatment may suffice. However, when patients present with thrombosed fistulas,

surgical thrombectomy and repair may be necessary. In such cases, the placement of the fistulotomy requires careful consideration. The site, length and orientation of the incision in relation to the anatomy of the offending lesion and the amount of redundancy in the outflow vein determine the options available for revision. These techniques may be more expeditious than traditional patch repair, particularly

where vein suitable for patching is not available without performing additional dissection.

References

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Direct transpectoral approach for level III axillary lymph node clearance

DJ Hadjiminias, KE Zacharioudakis

Imperial College Healthcare NHS Trust, UK

CORRESPONDENCE TO

Dimitri Hadjiminias, E: dhadjiminias@breastsurgeon.co.uk

BACKGROUND

In breast cancer patients with apical axillary involvement, level III clearance is necessary.^{1,2} Access and visualisation is important if injury to neurovascular structures in the area is to be avoided. Exposure can be suboptimal in obese patients, those with extensive tumour involvement and those undergoing reoperation for level III recurrence. We report a surgical approach that facilitates safe clearance of level III lymph nodes.

TECHNIQUE

Access to level III is achieved through a muscle splitting transverse incision on the pectoralis major, centred on the point where the axillary vein crosses the first rib. This is located 5cm lateral and 1cm superior to the suprasternal notch. The pectoralis minor can be retracted laterally and the neurovascular bundle to the pectoralis major can be dissected out of the surrounding fat and retracted in a silastic sling (Fig 1). This alternative approach provides excellent visualisation of level III with the corresponding portion of the axillary vein, its tributaries and the descending brachial plexus branches, allowing safe dissection of the apical axillary fat pad from the surrounding structures (Fig 1).

DISCUSSION

We recommend this approach for patients undergoing a mastectomy since the muscle splitting incision can be performed without the need for a separate skin incision. We believe it is ideal for patients with level III recurrence as it allows the surgeon to access level III without having to go through previously operated levels I and II, thereby minimising the risk of nerve or vessel injury during dissection.