A simple, cosmetically superior method of securing a post-surgical drain in facial surgery

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BACKGROUND

Securing the drain is important in a surgical procedure to prevent dislocation and migration. The most widely used method is the 'Roman garter' knot, but variations on this have been described.¹ These involve tying loops around the drain and may result in the tube slipping out. Traditionally, a silk suture is used, but this can lead to a poor cosmetic result.

TECHNIQUE

1. The drain is sited inferior to the wound.
2. A nylon suture is passed through the skin below the wound edge, into the wound.
3. The suture is passed through the most proximal hole in the drain.
4. The suture is passed back from inside the wound through the skin.
5. The two ends are looped over the drain and tied in multiple knots.

DISCUSSION

Silk excites an aggressive inflammatory reaction and so will result in an inflamed and unsightly scar.² Nylon is inert and has been shown to excite little or no inflammatory response and hence a cosmetically superior result.² Nylon also provides extra tensile strength for added security.

Figure 1 The knot secures the drain through the proximal hole and ties over the drain for added security.

The potential lack of security of tying the drain in with loops is avoided by passing the suture through the proximal hole in the drain, as it guarantees that the drain cannot slip out of the loop. Similar methods have been previously described, using the holes in the drain.³

References

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The use of ink to define the position of intra-osseous wire suture apertures in bone fixation

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BACKGROUND

Intra-osseous wiring is one of the options available when fixing fractures in the hand and in reconstruction of the facial skeleton and skull. Lister popularised the technique with his report in 1978, giving credit to Robertson for the initial description.¹ There are distinct advantages to this method of bone fixation: a drill or Kirschner wire driver is to be found in most operating theatres, and the wire is widely available and inexpensive. The technique is relatively simple, with limited soft-tissue dissection and the application of fracture compression possible. Wire entry and exit sites through bone have the potential to be problematical to identify once drilled. In reconstructive surgery, accurate marking of reference points minimises the risk of errors intra-operatively. I, therefore, wish to highlight a simple technique that is quick and accurate but has not been emphasised in the literature, the use of ink to define intra-osseous wire suture apertures in bone fixation.

TECHNIQUE

Once a channel has been created by a drill through bone, ink is applied to the drill tip that has traversed the bone and then the tip is withdrawn leaving ink behind visible at the apertures. This clearly defines both the entry and exit apertures.

DISCUSSION

A computerised search of the National Library of Medicine's database into the techniques of intra-osseous wire suture bone fixation does not highlight this technique. This is a swift and straightforward technique that simplifies this procedure and deserves to be highlighted.

References

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Intra-operative ultrasound localisation of a parathyroid adenoma

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BACKGROUND

In around 85% of cases of primary hyperparathyroidism, the cause is a solitary parathyroid adenoma. Pre-operative detection and localisation of an adenoma is often achieved through the combined use of ultrasonography and radiolabelled nucleotide scans of the neck. The use of intra-operative ultrasonography can further assist in localisation, helping to minimise the need for excessive exploration of the neck.¹

TECHNIQUE

We have so far successfully used intra-operative ultrasonography in five parathyroidadenectomies. Once anaesthetised, the surgeon uses a SonoSite Inc. ultrasound machine (SonoSite Ltd, Alexander House, 40A Wilbury Way, Hitchin SG4 OAP, UK) to scan the neck and, where possible, correlate structures with pre-operative images. This achieves accurate visualisation of the ultimate position of both the adenoma and other structures in the neck, in particular the relation to the internal jugular vein and carotid artery (Figs 1 and 2). We have found this technique also assists positioning of the neck to facilitate the optimum access for removal.

In one case, the pre-operative nucleotide scan revealed a single adenoma which the pre-operative ultrasound scan was unable to identify clearly. Once anaesthetised, the neck was able to be optimally positioned and using ultrasonography the adenoma localised with a greater degree of certainty.

In all patients, the operative localisation and removal of the adenoma was successful.

Figure 1 Pre-operative ultrasound scan identifying the parathyroid adenoma (Ad) and carotid artery (Ar).

Figure 2 Intra-operative ultrasound using SonoSite machine identifying the intra-operative positions of the adenoma, artery and internal jugular vein (V).

DISCUSSION

We found this simple to perform technique to represent more accurately the intra-operative position of both the adenoma and other important structures in the neck, providing the surgeon with additional information to facilitate successful and complete removal whilst minimising exploration of the neck.

Reference

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