Technical Section [TECHNICAL NOTES AND TIPS

Intraoperative assessment of flexor hallucis longus tendon integrity following hallux valgus correction

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BACKGROUND

The proximity of the flexor hallucis longus (FHL) tendon to the plantar surface of the proximal phalanx renders it vulnerable to injury when performing corrective surgery of the first ray.^{1–3} This is an underrecognised surgical complication and results in avoidable morbidity to the patient. We present an intraoperative method of assessing the integrity of the tendon.

TECHNIQUE

The flat surface of a McDonald dissector is placed between the FHL tendon and the plantar aspect of the proximal phalanx of the great toe. The simple manoeuvre of turning the retractor clockwise through 90° places an intact tendon under tension with a resulting subtle flexion of the distal phalanx. An inadvertently tenotomised tendon produces no

such response, and requires exploration and repair. Figure 1 illustrates the technique.

DISCUSSION

We have presented a method for the intraoperative assessment of the FHL tendon following Akin osteotomy of the great toe. This method is quick, simple and easily reproduced. We have found it to be sensitive in the detection of this occult injury, resulting in improvement in patient outcome.

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Covering external fixator pins with plastic tubing to protect the neighbouring digit

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Following debridement and lavage for infected non-union in a digit, an external fixator is required to achieve skeletal stability. The external fixator pins are cut and covered with a piece of excess plastic tubing measured to fit the fixator. The tube is marked at intervals corresponding to the pins with a surgical marker and a K-wire of the same calibre is used to perforate the cylinder unilaterally. The opposite side is left intact, covering the pins and protecting the border of the neighbouring digit (Fig 1).

Any plastic tubing can be used for this purpose, including nasogastric tubes, urinary catheters and oxygen delivery tubes. This is a safe,

Figure 1 The McDonald dissector (solid black line) is placed perpendicular to the flexor hallucis longus tendon at the base of the proximal phalanx (A). The dissector is turned clockwise (B), placing an intact tendon under tension, eliciting subtle flexion at the interphalangeal joint. The dissector must be placed fully along the plantar surface of the proximal phalanx (C, coronal view). Note proximity of tendon to site of Akin osteotomy (dotted black line).

Figure 1 External fixator pins covered with plastic tubing

simple and cost effective method that can be considered in any situation where protruding metalwork is present.

Minimally invasive open thyroid surgery combined with facelift approach for the surgical management of metastatic papillary thyroid carcinoma

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BACKGROUND

The surgical management of metastatic papillary thyroid carcinoma involving total thyroidectomy and neck dissection can be achieved with two distinct techniques: the conventional approach requiring a longitudinal neck incision (collar incision) extending between the posterior borders of the two sternocleidomastoids and minimally invasive video assisted thyroid surgery (either robotic or endoscopically assisted), which requires appropriately equipped units.¹ We report a new strategy for the surgical management of thyroid cancer with neck metastasis that involves a combination of the minimally invasive open thyroid surgery (MIOTS) technique and a facelift approach. To our knowledge, this technique has not been published by any other unit.

TECHNIQUE

Through the facelift approach (Fig 1), levels II, III and V (ipsilateral) are accessed while through the MIOTS approach (Fig 2), level IV (left and right), level VI and the thyroid are accessed. Depending on the levels requiring clearance, a second facelift approach can be developed on the

Figure 2 Minimally invasive open thyroid surgical approach

opposite side. The operative time is approximately 180 minutes and the patient is usually discharged after 72 hours. The 2014–2015 reference cost to the trust for total thyroidectomy and bilateral neck dissection was £8,006.²

DISCUSSION

The combined surgical approach described does not require expensive surgical equipment, has a good cosmetic result, provides the maximum surgical outcome required for an oncological procedure and benefits the trust financially. We believe that it is a good alternative to the rapidly developing robotic/endoscopically assisted thyroid surgery, which is much more expensive (£21,117 in 2014–2015),² requires more time and training, and has a longer recovery time.^{3–5}

References

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Figure 1 Left facelift approach (preauricular and postauricular)

A novel and bespoke absorbable cement restrictor

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BACKGROUND

Cement restrictors are used for maintaining good filling and pressurisation of bone cement during hip and knee arthroplasty. We describe a technique using Surgicel® (Ethicon, Somerville, NJ, US) and