Preventing damage to the femoral trunion during acetabular revision

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Use of a template to improve placement of volar splints on an injured hand

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Acetabular revision is an increasingly popular option for revision hip surgery.¹ Polyethylene wear, trauma, infection and aseptic loosening often precipitate revision. Despite the variations in the procedure, a common byproduct is damage to the trunion. We have devised a technique to protect the trunion during surgery from overzealous acts of retraction.

Once the joint is exposed and dislocated, a syringe is relieved of its piston and the remaining barrel used to cover the trunion (Fig 1). Further retraction is done over the syringe to spare the trunion from damage. Once the acetabular cup has been revised, the syringe is discarded.

Reference

1. Park YS, Moon YW, Lim BH *et al.* A comparative study of the posterolateral and anterolateral approaches for isolated acetabular revision. *Arch Orthop Trauma Surg* 2011; **131**: 1,021–1,026.

Figure 1 Intraoperative photograph illustrating self-retainer retracting against femoral trunion, over which an appropriately sized syringe barrel has been placed in order to protect the trunion

BACKGROUND

Immobilisation of the injured hand in a suboptimal position can result in poor functional outcome following injury due to stiffness. The ideal position for splinting of the hand has been described as having the metacarpophalangeal joint (MCPJ) immobilised at 70–90°.¹ In this position, the digital ligaments are at their longest owing to the cam shape of the metatarsal head. The interphalangeal joints are held at 0° as this ensures the volar plate is held stretched, thereby preventing contractures. This configuration is known as the intrinsic plus position of the hand.² We describe the use of a template to help achieve good and reproducible volar splints.

TECHNIQUE

A sheet of a fibreglass cast is moulded to have an 80° bend in the middle. A slight concavity is shaped into the template to accommodate the hand cascade. A window is made at the angle of the splint to allow better fit of the MCPJ (Fig 1).

Plaster of Paris is applied to the volar aspect of hand (Fig 2). The template is then applied on the dorsum of the hand (Fig 3). Align the MCPJ in the window. Use one hand to ensure fingers are held in

Figure 1 Fibreglass cast with 80° bend and window

Figure 2 Plaster of Paris applied to the volar aspect of hand

Figure 3 Template applied on the dorsum of the hand to ensure an angle of 80°

an extended position and index finger of the contralateral hand on the volar aspect of the MCPJ to ensure an angle of 80°.

DISCUSSION

We hope that this simple technique will help immobilisation of the hand in the intrinsic plus position become more reproducible and at the same time reduce the risk of stiffness following immobilisation.

References

1. James JJ. Fractures of the proximal and middle phalanges of the fingers. *Acta Orthop Scand* 1962; **32**: 401–412.
2. James JJ. The assessment and management of the injured hand. *Hand* 1970; **2**: 97–105.

The Derby parallax technique for marking levels in thoracic spinal surgery

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BACKGROUND

Perioperative imaging in the thoracic spine is uniquely difficult and multiple techniques have been reported to identify the correct vertebral level. Usually, these involve counting cranially from the sacrum with the image intensifier, marking levels with needles/permanent marker and then reconfirming intraoperatively with the image intensifier. Other reported techniques include preoperative radiological marking with blue dye in the spinous process¹ or surface marking with magnetic resonance imaging.² To avoid the added time and radiation of repeated imaging, the senior author (DC) developed the novel technique described here.

TECHNIQUE

With the patient prone on the operating table, an image intensifier is used to image the lower lumbar vertebrae and sacrum to facilitate counting of vertebrae from caudal to cranial to initially identify the

Figure 1 Sagittal T2 magnetic resonance imaging of spine demonstrating tumour at T9 level (marked by arrow) causing spinal cord compression

Figure 2 Lateral image intensifier image demonstrating electrocardiography (ECG) markers. The image intensifier was used to count the vertebrae cranially from the L5/S1 level with the two-needle technique. Once at the correct thoracic vertebra, two ECG markers were placed using the image intensifier, ensuring that they were both overlying the correct vertebra and each other, and this image was saved.