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

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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.

Figure 3 Photograph of thoracic spine with electrocardiography markers placed on the lateral thoracic walls at the correct level

correct level in the thoracic spine. Once identified, an adhesive electrocardiography (ECG) marker is placed on each lateral thoracic wall to overlie the vertebra on the lateral radiograph. When the first adhesive marker has been placed, the second marker is placed on the contralateral side to exactly overlap the first marker when viewed with the image intensifier and the image is saved. Intraoperatively, the correct level can be found quickly and confidently with minimal

Figure 4 Lateral image intensifier image taken intraoperatively. Once the thoracic spine was exposed, the image intensifier was used to recreate the preoperative image to ensure that the correct level had been identified.

radiation by identifying the point at which the ECG markers exactly line up on the image intensifier. The technique is demonstrated in Figures 1–4.

DISCUSSION

To our knowledge, this simple technique has never been reported in the literature. Based on our experience, we believe this technique confirms to both surgeon and imaging technician that true-lateral and correct-level imaging are employed throughout the procedure while enhancing safety by reducing operative time and radiation exposure.

References

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Accurate screw arthrodesis of the distal interphalangeal joint

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BACKGROUND

Arthrodesis of the distal interphalangeal joint (DIPJ) is often performed to treat pain, deformity and instability associated with both osteoarthritis and rheumatoid arthritis. Headless compression screw fixation is a recognised technique, and the compression and rigid fixation achieved are thought to influence fusion rates as well as time to union.¹ Final screw position is dependent on initial K-wire placement. A 'double ended' K-wire technique enabling intra-articular antegrade and then extra-articular retrograde positioning across the joint line would be most accurate. Unfortunately, the current wires on the 2.4mm headless compression screw tray (Synthes, West Chester, PA, US) are 'single ended'. We offer a modified double ended technique using a single ended wire to improve the quality of screw position and subsequent fixation achieved.

TECHNIQUE

Following clearance of the DIPJ articular cartilage, the single ended K-wire is passed from the intra-articular surface centrally antegrade up the distal phalanx, through the tip of the finger. The wire is passed fully through the distal phalanx. This same wire is then loaded 'backwards' into the K-wire driver and passed blunt end first antegrade up the pre-existing tract in the distal phalanx (Fig 1). Once the sharp end is sitting in the joint space, the finger can be accurately positioned before the K-wire is driven retrograde across the DIPJ and into the centre of the middle phalanx. The headless compression screw can then be sited according to the standard technique.