Minimising the risk of extensor pollicis longus rupture following volar plate fixation of distal radius fractures: a cadaveric study

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COMMENT ON

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We read with interest your paper and commend the authors for producing a well-designed study that addresses an important clinical problem.¹ We feel there are three simple techniques that can minimise the risk to these dorsal structures.

A proportion of tendon ruptures are due to iatrogenic injury during drilling of the screw holes.^{2,5} We recommend using an appropriately sized Kirschner wire to drill the 'at risk' holes as this is less traumatic when compared to the cutting flutes of a drill.

We agree that long screws may cause attrition of the tendons over time.^{1,2} We advocate the use of smooth locking pegs or tines rather than sharp-tipped self-tapping screws.

Rather than leaving the 'at risk' holes empty, we employ unicortical purchase. The 'at risk' holes of the three plates you analysed direct screws into an area that often has the best bone stock, providing the basis for sound fracture stabilisation and correction of radial height and inclination.

The use of these techniques, combined with the knowledge of 'at risk' screw holes, should considerably reduce the risk of extensor tendon ruptures in these cases. Thank you for an interesting paper and one that has such relevance to common orthopaedic trauma practice.

References

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Safe splinting in hand surgery (original author response)

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COMMENT ON

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I thank Mr Dobson and colleagues [last month's issue] for highlighting the importance of the Edinburgh position following hand surgery to ensure collateral pretension, thereby preventing contractures and tightness.

In our department we originally used the method described for splinting following Dupuytren's surgery. In cases of Dupuytren's disease with severe contracture at the metacarpophalangeal (MCP) joint we believe it is imperative to maintain extension at this joint for a short period postoperatively before early referral to the hand therapists. Splinting in extension thereby ensures scar elongation, preventing further MCP joint contracture (hence the appearance of the splinted hand in the figure). After an initial splinting period of two weeks we then advocate mobilisation and splinting only at night.

While there is some empirical evidence to support the use of low load prolonged stretch through splinting after Dupuytren's surgery to improve active extension deficit, there is a lack of well designed controlled trials with proper randomisation to evaluate the short-term and long-term effectiveness of splinting following Dupuytren's surgery.¹ Until these studies exist, the optimal position and duration of splinting following Dupuytren's surgery will be open to debate.

The purpose of this technical note was not to demonstrate the position of the hand but the use of the splint as a safe, potentially re-usable method of immobilisation. We believe it can be used for other joints in both elective practice and fracture management in general.

Reference

1. Larson D, Jerosch-Herold C. Clinical effectiveness of post-operative splinting after surgical release of Dupuytren's contracture: a systematic review. *BMC Musculoskelet Disord* 2008; **9**: 104.