

Isolated palmar dislocation of the trapezoid

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Summary. *A rare example of an isolated palmar dislocation of the trapezoid bone is described. Treatment by open reduction and fixation with a Kirschner wire gave a satisfactory result.*

Résumé. *Les auteurs présentent un cas de luxation palmaire isolée du trapézoïde. Il s'agit d'une lésion rare pour laquelle ils pensent qu'il faut effectuer une réduction sanglante, maintenue par des broches, afin de diminuer le risque de phénomènes dégénératifs.*

Introduction

Isolated dislocation of the trapezoid is very rare and only 24 cases have been reported since 1962 [1–10]. Eleven patients had palmar dislocations and in only 4 of these was the dislocation not associated with fractures or dislocations of other bones of the hand.

Case report

A 21 year old man's left wrist was injured when a lorry tyre fell on the dorsum of his hand. There was pain and considerable swelling, but no vascular or neurological damage. Radiographs showed an abnormality between the proximal and distal row of the carpus, and between the base of the second metacarpal and the trapezoid (Fig. 1). A CT scan confirmed a palmar dislocation of the trapezoid with an associated fracture (Fig. 2).

After a week the swelling was much less and the wrist was operated on. A dorsal incision was made and the trapezoid was reduced using a small elevator. Reduction was maintained with an 0.5 mm Kirschner wire (Fig. 3). A plaster cast was applied. The cast and the Kirschner wire were removed after 30 days. Functional exercises were then started.

After 4 months, he had regained full function and had returned to work.



Fig. 1a, b. Pre-operative radiograph



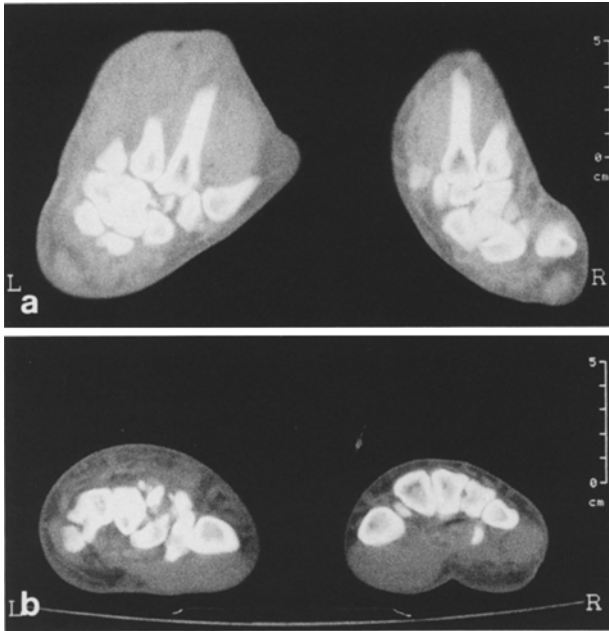


Fig. 2a, b. Pre-operative CT scan

Discussion

The trapezoid is situated like a wedge between the scaphoid, trapezium, capitate and second metacarpal, and is attached to these bones by strong ligaments.

Dislocation is produced by a violent force against the dorsum of the hand on a rigid object. The space between the surrounding bones is opened up and the ligaments are ruptured.

Dorsal dislocations can be treated by manipulation, but operation is needed to reduce palmar dislocations because of the shape of the trapezoid and its relation to the other bones. Reduction should be maintained by a Kirschner wire.

Excision of the trapezium has been suggested [5], but is not necessary; it would result in proximal migration of the second metacarpal with loss of function and degenerative changes. Limited arthrodesis of the carpal joints is indicated only when there are secondary degenerative changes.

References

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Fig. 3a, b. Post-operative radiograph



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