CASE REPORT

Ulnar nerve compression as a consequence of isolated pisiform dislocation

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Introduction

Isolated dislocation of the pisiform is a rare injury. This is because of the sturdiness of the ligamentous complex which stabilises the pisiform to the carpus. So far, only 25 cases proved by radiographs have been reported. Of these 25 cases there were two reports of recurrent dislocation of the pisiform. This is the first report of associated ulnar nerve compression as a consequence of the dislocation.

Case report

A 22-year-old man presented to the Accident and Emergency Department with a painful right [non dominant] wrist. There was no history of trauma. The wrist pain started after he picked up a book with his right hand. He did however give a history of this wrist ‘popping out’ several times (20–25) over the past 6 months. He was able to ‘pop’ the wrist back during all these previous episodes. He worked as a carpet fitter and for recreation enjoyed football goalkeeping. He could not remember any specific episode of injury to his wrist over the last 6 months although he did not discount the possibility of a fooballing injury to his wrist prior to the onset of his symptoms. On systemic enquiry he had no medical problems. General examination did not reveal any ligamentous laxity. Examination of his wrist revealed swelling and tenderness over the ulnar border of his wrist. He also had paraesthesia over the little finger and medial border of his ring finger on the volar side. In addition he had weakness of the abductor digiti minimi. [Reduced power against resistance — Grade 4/5].

Radiographs (Fig. 1) revealed medial displacement of his right pisiform.

The pisiform was reduced with ease by pushing on the pisiform in a lateral direction. There was an audible clunk and the patient experience pain relief instantly. Repeat radiographs (Fig. 2) confirmed reduction of the pisiform. He was admitted for elevation of his right upper limb over the next 12 h. Neurological examination the following day was normal and the swelling had settled and the patient had a full range of pain-free movement of his wrist. He was discharged and is due to be followed up with the possibility of requiring excision of his pisiform if he continues to have further episodes of dislocation of the pisiform.

Discussion

A majority of the dislocations of pisiform have been reported in young and active males as was the case...
in our report. Dislocations are commonly due to direct trauma to the ulnar and volar aspect of the wrist although occasionally it could occur as a consequence of an indirect force such as a forceful muscular contraction.

Demartin reported this injury in an 81-year-old woman in whom closed reduction failed to achieve reduction. The authors postulated that the reason for failed closed reduction was because of the action of the Flexor carpi ulnaris tendon. We believe that closed reduction was possible in our case because of previous episodes of subluxation/dislocation of the pisiform. Our patient had signs of ulnar nerve compression. These signs resolved after closed reduction.

Conclusion

The diagnosis of an isolated pisiform dislocation should be considered in patients with wrist pain over the medial side of the wrist which may be associated with signs of ulnar nerve injury. Comparing radiographs of the wrist with the unaffected side will help identify subtle medial deviation of the pisiform. Emergency reduction of the pisiform is required if there are signs of neurological injury to ulnar nerve. Excision of the pisiform may be required in case closed reduction fails or if the patient develops recurrent episodes of dislocation.

References