An unusual Case of Isolated Dislocation of the Scaphoid

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Introduction

Isolated dislocation of the carpal scaphoid without the presence of an associated fracture or dislocation of the carpal bone is a rare injury and only case reports are available in the literature. Various treatment strategies have been presented in the literature, ranging from closed reduction and casting to closed reduction and percutaneous pinning. In this case, a case of this injury treated with open reduction. K-wire fixation along with ligament reconstruction was reported as a primary treatment to restore carpal articulation and preserve motion.

Case presentation

A 45-year-old male was admitted to the department of upper limb and hand surgery after sustaining a motor vehicle accident. No additional injuries were noted at presentation. On physical examination, the skin was intact and an obvious hematoma at the volar side of the wrist was present. No signs of neuromuscular compromise were evident. Anteroposterior and lateral plain radiographs showed a volar dislocated carpal scaphoid without evidence of displacement or fracture of the other carpal and metacarpal bone.

Discussion

Isolated carpal scaphoid dislocation is an extremely uncommon injury. Motor vehicle accidents and forced wrist dorsiflexion with the hand in ulnar deviation are the main mechanisms of injury. The significant amount of force required to dislocate the scaphoid out of its fossa usually provokes a radial styloid fracture or a waist fracture of the scaphoid. Several treatment options have been described based on the type of dislocation and time from injury. Closed reduction with cast immobilization in the simple dislocations other than palmar-ulnar, presented less than a week from the traumatic event. Once scapho-lunate diastasis remains greater than 2mm after closed reduction, open reduction and internal fixation is required. In our patient with primary volar dislocation, ligament repair with bone suture anchor provided additional stability. Avascular necrosis after isolated scaphoid dislocation has only been described once. Other reported complications include degenerative joint disease and carpal instability and are mostly evident in neglected cases.

Conclusion

Isolated scaphoid carpal dislocation is an extremely uncommon injury with good prognosis if there is no delay to treatment. We suggest open reduction and internal fixation with K-wires and ligament reconstruction with bone suture anchors in all complex cases in order to prevent late complication.