INTRODUCTION

Scaphoid fractures B1 or B2 according to Herbert’s classification, could be treated whether with surgery or orthopedic treatment.

The aim of the present study is to analyze results and complications of scaphoid waist fractures treated with percutaneous fixation using a volar approach.

MATERIAL AND METHODS

92 patients with scaphoid waist fractures, which were treated in our institution from 2006 to 2016 using a volar percutaneous fixation, were retrospectively reviewed. The average follow-up was 16 months (range 12-48). Injuries were classified using Hebert’s classification, including types B1 and B2; the rest of fracture types following this classification system were excluded. Politrauma patients, dorsal approach, fractures associated with distal radius injuries, patients treated using another surgical technique and patients transferred to other centers for treatment or follow-up were also excluded. Demographic data, mechanism of injury, associated injuries and postoperative complications were collected in all patients. Clinical and radiological assessments were performed at the outpatient clinics. Functional results were evaluated using the DASH questionnaire. Consolidation was considered as presence of bony bridges crossing fracture site in all x-rays projections performed, associated with absence of pain in physical examination.

RESULTS

The average time to fracture healing was 6.6 weeks (range 5-11). After 12 months of follow-up, the average wrist range of motion was 70 of extension (range 58-80) and 75 of flexion (range 72-86). Regarding functional evaluation, the average score of The DASH questionnaire was 75 in patients that had associated injuries, decreasing to 42 in patients without it. Only two patients could not return to their daily activity due to other fractures. Complications were present in 1.08% patients during the surgical intervention; 9.78% patients referred any kind of complication during follow-up. The most frequent complication was non-union in 5 cases. The average timing of surgical intervention was 20-25 minutes.

CONCLUSION

Volar percutaneous fixation is a simple and quick technique for a specialized surgeon characterized by low morbidity and complications rates compared to ORIF, which accelerates patient’s functional recovery.