

Comparison of management of undisplaced scaphoid fractures: Conservative methods *versus* Open reduction and internal fixation.

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Abstract:

Introduction: Fractures of the scaphoid bone account for approximately 10% of the hand fractures. Traditionally, non displaced fractures of the scaphoid have been treated conservatively with immobilization of hand with cast. Now surgical fixation has been increasing. The aim of this study is to evaluate operative versus non operative treatments for acute undisplaced or minimally displaced scaphoid fractures. **Materials & Methods:** A randomized prospective clinical study was conducted on 15 patients with fracture scaphoid treated with conservative techniques and ORIF by trained surgeons at a tertiary trauma care centre in the Department of Orthopedics, B. J. medical college, Civil hospital Ahmedabad between May 2016 and May 2017. Fracture patterns were classified on basis of Herbert classification. **Observation and results:** Mean age was 21.5 years. 86.7% patients had mechanism of injury as axial load on hyperextended and radially deviated wrist. Average period for immobilization for conservative was 10weeks and after surgery was 2 weeks. 11.11% patient managed conservatively had undergone non-union. 16.7% managed by surgery had undergone non-union. 20% had mean wrist extension deficiency of 14 degrees. 13% had mean volar flexion deficiency of 13 degrees. 86.7% patients had excellent and good results. 13.3 % patients had fair to poor results. 33.33% cases had osteoarthritis in follow-up examination. 19% had grip deficiency. The average wrist score was 88%. **Conclusion:** Undisplaced fractures treated conservatively had less risk of undergoing non-union compared to surgical techniques. Conservative treatment is more effective from cost utility standpoint of view. Surgical treatment needs lesser time in comparison to conservative treatment.

Keywords: Hand fracture, Non-union, Scaphoid fracture.

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