

Treatment of Distal Radius Fracture with percutaneous pinning and Pin-in Plaster with patients older than 60 years

Mortezapour F, MD, Rouhani AR, MD, Elmi AA, MD.

Orthopedics Department, Shohada Hospital, Faculty of Medicine, Tabriz University of Medical Sciences

Introduction: Distal radius fractures are the most common fractures of upper limbs in adults and their treatment is hard in older patients. There are different therapeutic methods. In this study we aim to compare the therapeutic outcome of distal radius extra-articular fractures treated with pin-in plaster and percutaneous pinning.

Methods: In this randomized clinical trial, 60 patients including 40 female and 20 male between 60-85 years old with distal radius extra-articular fractures in two groups of pin-in plaster (n=30) and percutaneous pinning (n=30) were evaluated for treatment outcome, radiographic changes, functional outcome and pain control during 6 month after surgery.

Results: pin-in plaster group compared to percutaneous pinning had significantly better radiologic findings at the end of 6 month. Excellent functional results after 6 weeks were observed in 30% and 23.3% of pin-in plaster and percutaneous pinning groups, respectively (p=0.84), six months after surgery, excellent function outcome were significantly higher in pin-in plaster group (83.3% vs. 50%, p=0.006). Being painless has no significant difference between groups after 6 weeks (43.3% vs. 56.7%, p=0.54), however was significantly higher in pin-plaster group after 6 months (93.3% vs. 50%, p=0.002).

Conclusion: Pin-in plaster method compared to percutaneous pinning had acceptable radiologic and functional outcome in old patients over 60 years old. Using this method as a simple method with high efficacy in treatment of distal radius fractures is recommended.

Keywords: Fracture; Distal radius; Pin-in plaster; Percutaneous pinning