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**Original article:**

**Non-comminuted extra­-articular fractures of distal radius treated with Percutaneous pinning**

**Manikandan K, Khisankumar PN, Arunprasath .C**

Department of orthopedics, Kalitheerthalkuppam, Madagadipet, Puducherry, Tamil Nadu

Corresponding author: Manikandan K

**Abstract**

**Background:** Various treatment modalities have been described for the treatment of extra-articular distal radius fractures eachwith its own merits and demerits. Most of the work done with percutaneous pinning has shown a significant residual stiffness ofthe hand and wrist. Our technique involves percutaneous pinning of the fracture and immobilization in neutral position of the wristfor three weeks. This study’s aim was to examine the functional outcome of percutaneous K-wiring of these extra-articular distal radius fractures with immobilization in neutral position of the wrist.

**Materials and Methods:** This is a prospective study of 40 patients aged between 18 and 60 years with extra-articular distal radius fracture. Patients were treated with closed reduction and percutaneous pinning using two or three K-wires. A below- elbow plaster of parisdorsoradial slab was applied in neutral position of the wrist for 3 weeks. At the end of 3 weeks, the slab was removed and wrist physiotherapy started. The radiographs were taken postoperatively, at 3 weeks, 6 weeks and 3 months. The functional evaluation of the patients was done at 6 months follow-up. We used Sarmiento’s modification of Lindstrom criteria and Gartland and Werley’s criteria for evaluation of results.

**Results:** Excellent to good results were seen in 87.5% of the cases while 12.5% had fair results. The complications observed were pin loosening (n=10), pin tract infection (n=2), malunion (n=2), wrist joint stiffness (n=2), reduced grip strength (n=2) and injury to the superficial radial nerve (n=1).

**Conclusion:** Percutaneous pinning followed by immobilization of the wrist in neutral position is a simple and effective method to maintain reduction and prevent stiffness of wrist and hand.

**Key words:** Extraarticular distal radius fracture, immobilization with wrist in neutral position, percutaneous pinning