

A Prospective Study of a Modified Pin-In-Plaster Technique for Treatment of Distal Radius Fractures

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Abstract : Purpose: There are various pin-in-plaster methods for treating distal radius fractures. This study is meant to introduce a modified technique of pin-in-plaster. Materials and methods: Fifty-four patients with distal radius fractures were followed up for one year. Patients were excluded if they had type B fractures according to AO classification, multiple injuries or pathological fractures, and were treated more than 7 days after injury. Range of motion and functional results were evaluated. Radiographic parameters including radial inclination, tilt, and height, were measured preoperatively and postoperatively. Results: The average radial tilt was 10.6° and radial height was 10.2 mm at the sixth month postoperatively. Three cases of pin tract infection were recorded, who were treated totally with oral antibiotics. There was no case of pin loosening. Of total 73 patients underwent surgery, three cases of radial nerve irritation were recorded at the time of cast removal. All of them resolved at the 6th month follow up. No median nerve compression and carpal tunnel syndrome have found. We also had no case of tendon injury. Conclusion: Our modified technique is effective to restore anatomic congruity and maintain reduction.

Keywords : distal radius fracture, percutaneous pinning, pin-in-plaster, modified method of pin-in-plaster, operative treatment

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