

Results of Distal Radial Fractures Treated by Intra-focal Pin Fixation

C K Low,**FAMS, M Med, FRCS*, K H Liao,***MBBS, M Med, FRCS*, W Y C Chew,**FAMS, M Med, FRCS*

Abstract

Introduction: Kapandji described intra-focal pin fixation of distal radial fracture in which the pins pass through the fracture line and anchor to the far cortex. These pins aid reduction of the fracture and maintain reduction by buttressing the distal fragments. **Materials and Methods:** Between January 1996 to December 1997, 186 distal radial fractures were treated with intra-focal pin fixation. One hundred and seventy-seven patients were available for review after an average follow-up of 30.8 months, ranging from 24 to 36 months. In 133 fractures, a trans-styloid pin was inserted to supplement the intra-focal pin fixation. The fractures were classified according to AO classification into 126 A2, 9 A3, 39 C1 and 3 C2. The anatomical results were evaluated by using Sarmiento's criteria and the functional results by Mayo wrist score. **Results:** Radiological union was achieved in 123 fractures by 2 months, 51 fractures by 3 months and 3 fractures by 4 months. Anatomical results were excellent in 46 fractures, good in 118, fair in 10 and poor in 3. Functional results were excellent in 54 cases, good in 109, fair in 9 and poor in 5. Complications included 2 cases of reflex sympathetic dystrophy and 2 cases of rupture extensor pollicis longus. **Conclusion:** Intra-focal pinning with or without supplementation of a trans-styloid pin is an effective method for treating unstable fractures of the distal radius.

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Key words: AO classification, Intra-focal pin, Kapandji technique, Mayo wrist score, Trans-styloid pin

* Consultant

** Registrar

Department of Orthopaedic Surgery, Tan Tock Seng Hospital

Address for Reprints: Dr C K Low, Department of Orthopaedic Surgery, Tan Tock Seng Hospital, 11 Jalan Tan Tock Seng, Singapore 308433.