Medicine beyond frontiers

The 42nd Annual Medical Congress

L12

Colles' Fracture Treated by Kapandji Intrafocal Pinning

Chunprapaph B.

Associate Professor of
Orthopaedic Surgery
University of Illinois
Chicago, Illinois

Kapandji described the technique of intrafocal pinning of distal radius fractures in 1976. Initially, he used two pins (0.062 K-wire) - one dorsally and one radially inserted directly into the fracture site. The pin was used to lever the major fragment into reduction and then directed obliquely and proximally to buttress the distal fragment and it improve the palmar till and radial inclination of articular surface. His indication was for unstable extra - articular fractures of the distal radius in young patients. No cast immobilization was used. In 1987, he added a third pin dorsoulnarly to provide further support. The indications were also extended to include fractures with multiple fragments. Greatings and Bishop reported the results in 23 patients with 24 fractures. All patients failed trial of closed reduction (dorsal tilt 23 °-29 ° all unlar positive variance.). Good and excellent radiologic results were achieved in 79 % of patients, <65 years of age and 100% of patients >65 years of age obtained good or excellent clinical results. They also extended the indications to displace intra-articular fractures by corrected displacement and transfix with thransverse K-wires. A cast or external fixator was used in every case. We have used arthroscopic cannula to protect the pin from injury to nerve and tendon. We have inserted two more pins dorsal and volar aspects of radial styloid to transfix the fracture to prevent displacement of the distal fragment. For volar displaced fragment, we inserted the D-wire with arthroscopic cannula volarly to reduce the fracture and removed the volar pin in 2 to 3 weeks. We immobilized the forearm in supination with long dorsal splint fro PIP joint to above elbow and short volar splint from the wrist to the elbow. The splints were wrapped with Ace bandage with the MP joint flexed 70°. The wrist is palmar flexed 30°. This will allow wrist and elbow motion for one to two weeds. Then, it was changed to a removable wrist brace for exercise. Pins were removed at six weeks and brace was removed when pain free.