Injuries to the hand are common; fractures of the fifth metacarpal bone accounting for approximately 50% of these injuries. Treatment of the fifth metacarpal bone fractures includes conservative and operative management. Conservative treatment includes splinting, functional taping, functional bracing and compression bandage. Surgical or operative treatment includes K-wiring, both intramedullary (antegrade and retrograde) intermetacarpal, locking plates and non-locking mini fragments. These techniques have been reported in the literature with varying levels of effectiveness. Surgery is often indicated when the metacarpal head displacements exceed 45 degrees.

The aim of this study is to evaluate the functional outcome of isolated fifth metacarpal fractures treated surgically by antegrade intramedullary K-wiring.

**METHOD**

Inclusion criteria were patients with closed, isolated fifth metacarpal fractures which were treated between July 2007 and February 2013. Multiple fractures of the metacarpals, polytrauma and patients managed with locking plate were excluded. The patients who met inclusion were followed up in the clinic between April and June 2013.

Antegrade K-wires for the fixation of fifth metacarpal Boxer’s fracture was performed under general anesthesia. A tourniquet was used and a small dorso-ulnar longitudinal incision was made proximal to the base of the fifth metacarpal bone. Blunt dissection was performed to expose the insertion of the extensor carpi ulnaris tendon to avoid injury to the dorsal sensory branch of the ulnar nerve. Using fluoroscopic guidance, identification of the entry point at the base of the fifth metacarpal bone and hole entry was performed using a bone awl.

Two 1.4 mm K-wires were prepared by bending the tip at approximately 45 degrees. Insertion of the first K-wire was performed under fluoroscopy till it reached the fracture site, then reduction of the fracture was performed by flexing the metacarpophalangeal and proximal interphalangeal joints to 90 degrees and using the proximal phalanx to push up the metacarpal head (Jahss maneuver), then permit the K-wire to cross the fracture site till it reached its place in the head of the metacarpal.

Bahrain Med Bull 2016; 38 (2): 78 - 81