

THE EFFECTIVENESS OF MODIFIED METAIZEAU TECHNIQUE IN FIXATION OF ADULT RADIAL NECK FRACTURE

Mohamad Imran Hassan¹, Mohammed Harris Anwarali Khan², Jasvinder Singh Jagindar Singh¹

¹Hospital Taiping, ²Hospital Kuala Lumpur

Introduction: Métaizeau et al proposed intramedullary nailing as a surgical alternative for the treatment of radial neck fractures. This method allows for extracapsular reduction of the fracture, using a K-wire introduced into the medullary canal through a distal metaphyseal entry point.

Discussion: A 40-year-old man presented to us complaining of pain and swelling over right elbow after allegedly fall from bicycle. Radiographic study showed displaced right radial neck fracture (Figure 1). After routine sterilization and draping, closed reduction was attempted by thumb pressure over the radial head while applying longitudinal traction and varus stress on the extended elbow. Two 1.8-mm K-wires were introduced into the medullary canal through a small entry made at dorsoradial aspect of mid radius and then guided retrogradely. The reduction was helped and maintained by rotation of the K-wire around its longitudinal axis through 180°, so that the bended tip guided the head to its reduced position. After obtaining an accepted position, the second wire was pushed into the head with care. This will combat torsional and shearing forces along the fracture (Figure 2). The distal end of the K-wires was bent and buried in the subcutaneous tissues. We used post-operative immobilization in a long-arm cast for 4 weeks (Figure 3). Full range of movement was allowed after then. The K-wire was removed after 8 weeks. At final follow up patient's elbow is stable with range of motion was 20° – 90° degrees flexion, supination 60° and pronation 50°. Radiographic analysis showed united fracture.

Conclusion: Intramedullary pinning, as described by Métaizeau, is a simple and effective method to treat radial neck fractures in adults, which provides good results with limited risk of complications.