

Assessment of the Functional Outcomes of Isolated Fifth Metacarpal Fractures Treated by Antegrade Intramedullary K-Wiring

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Background: Fractures of the neck of the fifth metacarpal is known as Boxer's fractures; they are among the most common fractures of the hand. Despite the variety of conservative and surgical options available, no one technique has been established as the reference.

Objective: To evaluate functional outcomes of isolated fifth metacarpal fractures treated by antegrade intramedullary K-wiring.

Design: A Retrospective Review.

Setting: Bahrain Defence Force Hospital, Kingdom of Bahrain.

Method: A retrospective review of patients who underwent surgical fixation of fractures of the neck of the fifth metacarpal using intramedullary K-wires inserted in an antegrade fashion treated from July 2007 to February 2013.

Result: Twelve patients met inclusion criteria. Mean follow-up was 34.5 months, a range of 23 to 56 months. The patients had a mean of 97.8% range of motion in the injured hand compared to the non-injured. They had a mean of 90.2% strength on the injured hand compared to the non-injured. Complex regional pain syndrome was documented in one patient. Radiographically, all patients showed full union on follow-up. Subjectively, Visual Analogue Scale (VAS) scores had a mean of 1.08. Disabilities of the Arm, Shoulder and Hand (DASH) scores had a mean of 6.9 and Steele scores had a mean of 378.5.

Conclusion: Surgical fixation of Boxer's fractures using intramedullary K-wires inserted in an antegrade fashion is an effective method of fixation.