

CROSS HAIR AT THE KNEE JOINT: BICONDYLAR HOFFA FRACTURE

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INTRODUCTION:

Isolated Hoffa or coronal plane fracture of distal femur condyle are rare and represent only 0.65% of all femoral fractures. Isolated bicondylar Hoffa fracture is an extremely rare injury which commonly result of motor vehicle accidents which exert an axial load on a flexed knee. We present a case of isolated bicondylar Hoffa fracture which is successfully treated with open reduction and screw fixation and yield good outcome.

REPORT:

A 22 years old gentleman presented to Emergency Department after involved in a motor vehicle accident. He complained of swelling and deformity of right knee which radiograph examination shows Bicondylar Hoffa fracture. Two days after the accident, open reduction via midline approach and screw fixation was done for him. Medial parapatella arthrotomy was performed which revealed displaced bicondylar Hoffa fracture. The displaced fragments then reduced with 2mm Kirshchner wire. Fracture fragments reduced and fixated with half threaded cancellous screws. Post operatively, knee was immobilized for 2 weeks and started range of motion exercise of the knee after. Full weight bearing was permitted 6 weeks after operation.

After 6 months postoperative, patient achieve union and able to walk and perform his daily activity with no pain. Active range of motion of knee 10 - 120°.

Figure 1 : Initial post-traumatic radiograph of knee

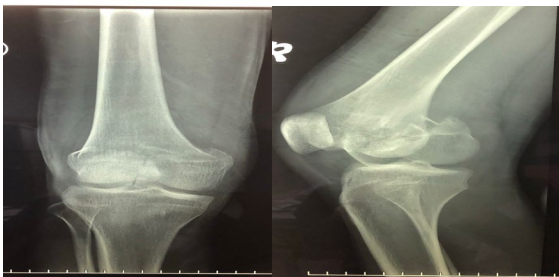


Figure 2: “Cross hair” fracture line seen in coronal plane

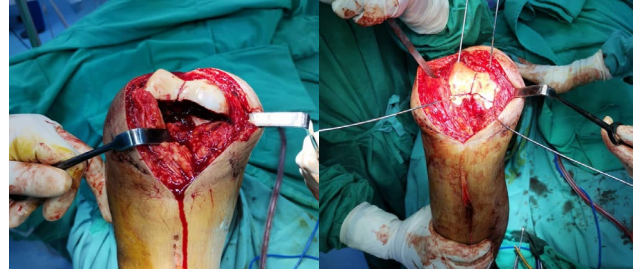


Figure 3: Radiograph image 2 months postoperative



CONCLUSION:

Isolated bicondylar Hoffa fracture is a rare injury which commonly result from high energy trauma causing axial load to a flexed knee. Early fixation offer good outcome as compared to conservative which commonly complicated with nonunion. Early and rigid internal fixation was recommended to restore condylar anatomy and allow functional recovery. Midline approach with either lateral or medial parapatella arthrotomy is the most commonly reported approach.

REFERENCES:

1.R. Ul Haq, P. Modi, I. Dhammi, A. Jain, and P. Mishra, “Conjoint bicondylar Hoffa fracture in an adult,” *Indian Journal of Orthopaedics*, vol. 47, no. 3, pp. 302–306, 2013