

Unusual Fracture of The Femoral Condyle with Ipsilateral Femur Fracture

¹Amrik S; ¹Thurini V; ¹Ng YT; ¹Hadizie D; ¹Aizat Saat

¹Department of Orthopaedic Surgery, Universiti Sains Malaysia, Kubang Kerian, Kelantan.

INTRODUCTION

The association of supracondylar or intercondylar fractures along with Hoffa's fracture are well described in literatures. We report on a patient who sustained an unusual transverse-plane fracture of the lateral femoral condyle with ipsilateral femur shaft fracture.

REPORT:

A thirty-nine years old man was riding a motorcycle when he lost control and skidded. Gross deformity of the left thigh and a deep laceration wound over the anterior left knee was identified on physical examination. X-rays were done and he was diagnosed with open fracture of the lateral femoral condyle and closed fracture of the ipsilateral femur shaft. CT-scan was done to further evaluate the intra-articular fracture, which revealed an unusual fracture pattern of the lateral femoral condyle or rather a thick osteochondral fracture. The fragment was situated distally over the lateral tibio-femoral articulation which could not be categorized as a Hoffa's fracture or included in Letenneur's classification. The wound was debrided and the knee joint was approached through lateral parapatellar incision.



Figure 1: CT-scan and pre-reduction image

Intra-operatively, the fracture was in a transverse plane situated distally over the lateral tibio-femoral articulation. We were able to anatomically reduce the fracture with minimal manipulation using a freer elevator and fix it with two 3mm headless compression screws. The femur shaft was temporarily immobilized

with high-tibial pin traction while waiting for the wound over the knee to be feasible.



Figure 2: Post fixation intra-operative image and x-ray

CONCLUSION:

The management and classification of Hoffa's fracture are well documented in literature. Letenneur classification describes the relationship between the fracture and the attached ligaments, which signifies the treatment and prognosis. Unlike the more common coronal fractures of the femur condyle, transverse plane fractures like this are seldom seen, leading to uncertainty of its mechanism of injury and outcome. Unusual fracture patterns are frequently encountered, and they have the potential to be included into current or future classifications for a better understanding and developing a standardized management. Ensuring anatomical reduction while conserving the integrity of the articular cartilage is essential for achieving favorable outcomes in such complex fractures. We would advocate the use of headless compression screws in fractures like this to prevent soft tissue irritation and achieving adequate compression in comparison to the conventional cancellous screws.

REFERENCES:

1. Miyamoto R, Fornari E, Tejwani NC. Hoffa fragment associated with a femoral shaft fracture: a case report. JBJS. 2006 Oct 1;88(10):2270-4.
2. Biau DJ, Schranz PJ. Transverse Hoffa's or deep osteochondral fracture?: An unusual fracture of the lateral femoral condyle in a child. Injury. 2005 Jul 1;36(7):862-5.