Management Of A Hoffa Fracture Using Ipsilateral Proximal Tibial Locking Plate : A Case Report

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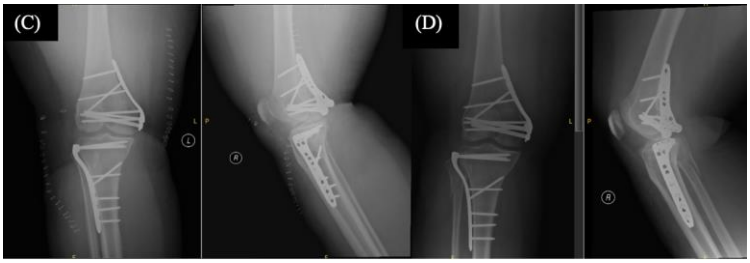
INTRODUCTION:

Hoffa's fracture is a rare coronal-oriented fracture of the distal femur condyle. It results from axial compressive forces, causing fractures in the coronal plane of the femoral condyle, presenting a diagnostic and fixation dilemma, which requires a high index of suspicion and is typically confirmed through computed tomography (CT) scans due to their potential to be missed on plain radiographs. Whilst various surgical techniques have been described for Hoffa fractures, the use of an ipsilateral proximal tibial LCP is less common.

REPORT:

A 31-year-old lady was in a motor vehicle accident, leading to a Hoffa fracture of the right medial femoral condyle with an ipsilateral tibial plateau fracture. Surgery involved addressing the tibial plateau fracture with a standard proximal tibial LCP through an anterolateral approach and a separate medial approach was then used for the femur. An ipsilateral proximal tibial LCP was contoured and the desired anatomical reduction and stable fixation was achieved. Postoperatively, a non-weight-bearing protocol, followed by physiotherapy was initiated. Six weeks post-op, the patient demonstrated functional improvements, and radiographs showed resolution of fracture lines with intact implants.



Clinical pictures : (A) Plain radiograph AP/lateral views – Suspicious fracture line over medial femoral condyle. **(B)** CT images - coronal, sagittal, axial and 3D reconstruction showing large Hoffa fragment **(C)** Immediate post surgical fixation **(D)** 6 weeks post-op

CONCLUSION:

The use of an ipsilateral proximal tibial LCP in this case provided biomechanical advantages, including angular stability and compression, crucial for optimal fracture healing. The innovative approach showcased positive clinical outcomes, suggesting its viability as an alternative in the surgical armamentarium for Hoffa fractures. However, further studies with larger cohorts and long-term follow-up are necessary to validate the technique's efficacy and safety. Individual patient factors, fracture characteristics, and surgeon expertise should be considered when determining the most appropriate treatment strategy for Hoffa fracture.

REFERENCES:

1. Lewis, S. L., Pozo, J. L., & Muirhead-Allwood, W. F. (1989). Coronal fractures of the lateral femoral condyle. The Journal of Bone & Joint Surgery British Volume, 71(1), 118-120.