

Complex Multi-ligament Knee Injury with Lateral Meniscus Posterior Root Tear: A Case Report

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INTRODUCTION:

A multi-ligament knee injury is a complex injury that disrupts knee stability which cause significant morbidity to the patient.

REPORT:

A 31-year-old patient suffered a high-impact collision in a motor vehicle accident exhibit significant knee instability. Clinically, the patient had positive findings of posterior sagging with PDT and PLDT grade III, Varus test positive both at 0 and 30-degree, and dial test positive at 30 and 90-degrees. Diagnostic arthroscopic revealed complete tears in the ACL, PCL, PLC, popliteofibular ligament and both meniscus injuries.

The surgery commenced with arthroscopic evaluation, with a finding of a posterior root tear of the lateral meniscus which formed a firm attachment to the posterior capsule and intact menisiofemoral ligament. We proceeded with the meniscus root resection, reconstruction of the ACL and PCL utilizing allografts was performed afterward. Subsequently, the FCL and popliteus were reconstructed using the modified Larsson technique. We performed all inside remnant preserving PCL reconstruction by intercruciate transeptal approach. We found a huge advantage of this technique as it provides accurate anatomical tunnels placement and reduces the “killer” turn by cushioning effect PCL remnant on the graft therefore may prevent graft failure.

For the lateral meniscus posterior root resection, we performed a luggage tag pull through suture anchor fixation by sharing same tibial tunnel for ACLR. This method is a viable options to fix lateral meniscus root as anatomical and could avoid tunnel convergence

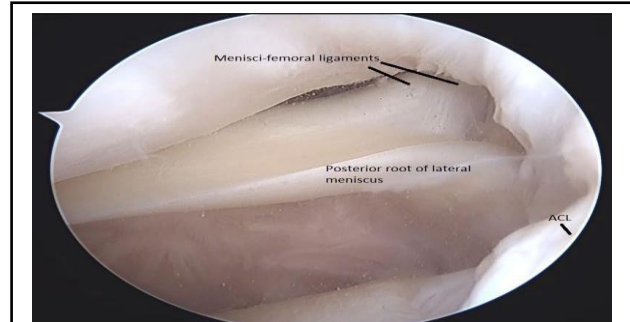


Figure 1: Lateral Meniscus Posterior Root Tear

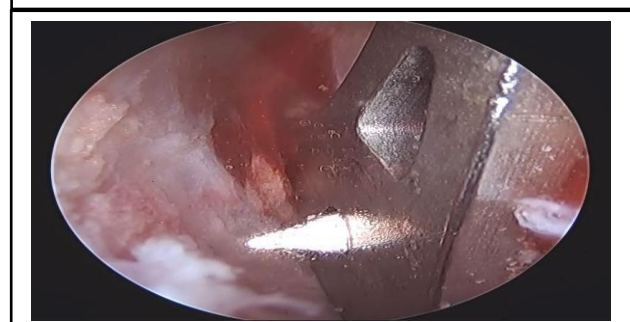


Figure 2: Better Visualization of the posterior tibial slope

by drilling an additional tibial tunnel for the fixation.¹

CONCLUSION:

Inter-cruciate transeptal approach for PCL reconstruction is a safe technique, a reliable, and reproducible procedure that is advantageous in reducing the “killer turn”. The anchoring of the lateral meniscus posterior root with shared ACLR tibial tunnel provides an anatomical and stable fixation with good functional outcome.¹

REFERENCES:

1. Zhou et al. (2022). Shared ACL Bone Tunnel Technique for Repair of Lateral Meniscus Posterior Root Tears Combined With ACL Reconstruction. *Orthopaedic Journal of Sports Medicine*.