

## Effect of Retained Posterior Horn of Medial Meniscus on Functional Outcome of ACL Reconstructed Knees

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**Abstract :** Background: The posterior horn of medial meniscus (PHMM) is a secondary stabilizer against anterior translation of tibia. Cadaveric studies have revealed increased strain on the ACL graft and greater instrumented laxity in Posterior horn deficient knees. Clinical studies have shown higher prevalence of radiological OA after ACL reconstruction combined with meniscectomy. However, functional outcomes in ACL reconstructed knee in the absence of Posterior horn is less discussed, and specific role of posterior horn is ill-documented. This study evaluated functional and radiological outcomes in posterior horn preserved and posterior horn sacrificed ACL reconstructed knees. Materials: Of the 457 patients who had ACL reconstruction done over a 6 year period, 77 cases with minimum follow up of 18 months were included in the study after strict exclusion criteria (associated lateral meniscus injury, other ligamentous injuries, significant cartilage degeneration, repeat injury and contralateral knee injuries were excluded). 41 patients with intact menisci were compared with 36 patients with absent posterior horn of medial meniscus. Radiological and clinical tests for instability were conducted, and knees were evaluated using subjective International Knee Documentation Committee (IKDC) score and the Orthopadische Arbeitsgruppe Knie score (OAK). Results: We found a trend towards significantly better overall outcome (OAK) in cases with intact PHMM at average follow-up of 43.03 months (p value 0.082). Cases with intact PHMM had significantly better objective stability (p value 0.004). No significant differences were noted in the subjective IKDC score (p value 0.526) and the functional OAK outcome (category D) (p value 0.363). More cases with absent posterior horn had evidence of radiological OA (p value 0.022) even at mid-term follow-up. Conclusion: Even though the overall OAK and subjective IKDC scores did not show significant difference between the two subsets, the poorer outcomes in terms of objective stability and radiological OA noted in the absence of PHMM, indicates the importance of preserving this important part of the meniscus.

**Keywords :** ACL, functional outcome, knee, posterior of medial meniscus

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