

Outcomes of Lateral Meniscal Oblique Radial Tear Repairs are Similar to Intact Meniscus after Anterior Cruciate Ligament Reconstruction: A Cohort Study

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INTRODUCTION: Recently, the posterior horn lateral meniscus oblique radial tear (LMORT) was identified in 12% of acute anterior cruciate ligament (ACL) injuries (Figure 1). However, patient-reported outcomes for repair of this relatively common tear have not been reported. Therefore, the purpose of this study was to determine the minimum 2-year functional outcomes after LMORT repair at the time of ACL reconstruction (ACLR) surgery to a matched cohort of patients who underwent isolated ACLR (iACLR).

METHODS: One-hundred patients with a mean age of 21 years (range 13-45) at the time of surgery who underwent primary ACLR between 2010 and 2018 with a mean 4.1 ± 2.0 years (range 2.0-9.2) follow up were included. Fifty patients with surgically repaired LMORT 3 or 4 lesions (LMORT group) were retrospectively selected and matched 1:1 with 50 patients that underwent isolated ACL (iACLR group) based on age, date of surgery, and graft choice. The International Knee Documentation Committee (IKDC) survey and the Tegner activity scale were administered in the postoperative period. An updated medical history was obtained via the electronic medical record to determine any subsequent complications and reoperations.

RESULTS: There was one ACL graft failure in each group as well as 5 total (10%) reoperations per group. None of the patients in the LMORT group necessitated a lateral meniscus revision repair or partial meniscectomy. The LMORT and iACLR groups reported comparable IKDC scores (92.5 ± 6.8 vs. 91.9 ± 8.2 , $p = .712$) as well as Tegner levels (6.7 ± 1.8 vs. 6.6 ± 1.8 , $p = .910$) respectively at final follow up (Table 1).

DISCUSSION AND CONCLUSION: This study demonstrated that reoperations, graft failure rates, patient-reported outcomes, and patient activity levels at minimum 2-years after type 3 and 4 LMORT repairs at the time of ACLR compared favorably to a matched cohort of isolated ACL reconstructions with intact meniscus. No failures of the LMORT repairs were reported.

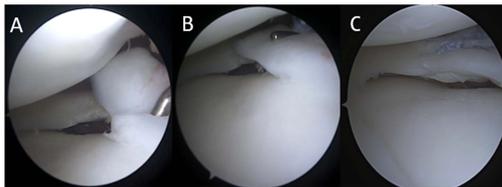


Figure 1. Arthroscopic view from the anterolateral portal demonstrating a type 3 LMORT. (A) LMORT 3 prior to repair. (B) LMORT 3 reduced by a probe from the anteromedial portal. (C) Repaired LMORT 3.

Table 1. Patient-reported outcome measures at final follow-up.^a

PROM	LMORT (n = 50)	iACLR (n = 50)	p value
IKDC score	92.5 (6.8)	91.9 (8.2)	0.712
Tegner	6.7 (1.8)	6.6 (1.8)	0.910

^aData reported as mean (standard deviation).

PROM, patient-reported outcome measure. LMORT, lateral meniscus oblique radial tear. IKDC, International Knee Documentation Committee.