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Fondazione Policlinico Universitario Agostino Gemelli IRCCS
Università Cattolica del Sacro Cuore

Title: Popliteomeniscal Fascicles Tears with Lateral Meniscus Instability. Arthroscopic Surgical Technique with Two-year Follow-up

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Disclosures: The authors declare that they have no conflicts of interest



POPLITEOMENISCAL FASCICLES TEARS WITH LATERAL MENISCUS INSTABILITY. ARTHROSCOPIC SURGICAL TECHNIQUE WITH TWO-YEAR FOLLOW-UP

INTRODUCTION

- The popliteomeniscal fascicles (PMFs) are a crucial part of the posterolateral corner of the knee. They provide stability to the lateral meniscus and stabilize the joint during tibial internal rotation
- The clinical diagnosis of a torn PMFs is difficult, and magnetic resonance imaging (MRI) may be inconclusive as well

AIM

- The aim of the present study was to report the outcomes of a continuous series of patients affected by PMF lesions and treated with an arthroscopic repair



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METHODS

- Seventeen patients (average age of 22 ± 3.6 years) with PMF lesions and lateral meniscus instability were prospectively enrolled
- All patients were evaluated with clinical examination, IKDC, Lysholm and Tegner scores and 1.5T MRI
- All patients had the same arthroscopic procedure consisting of meniscal repair with an all-inside meniscal repair system (mean 2.2 ± 0.77 anchors) and followed with the same postoperative protocol



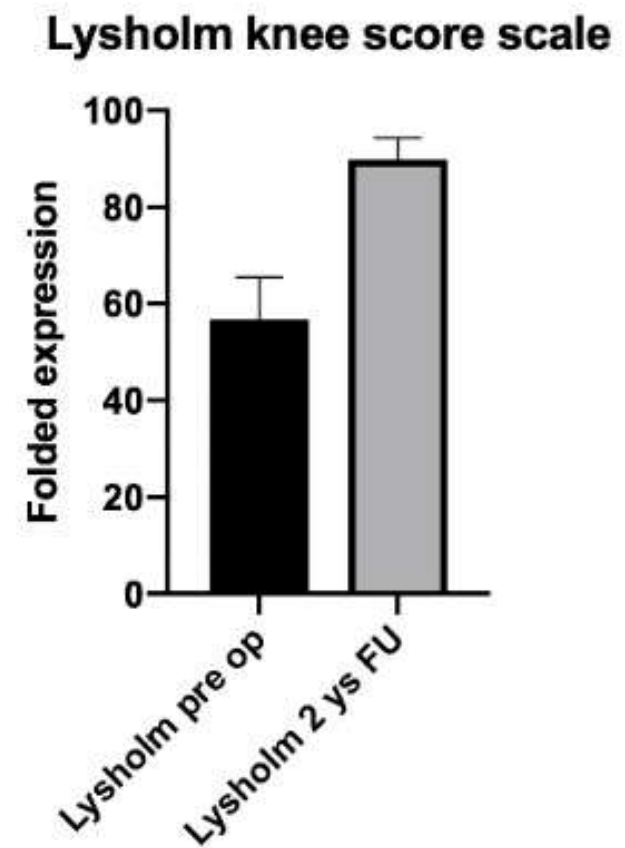
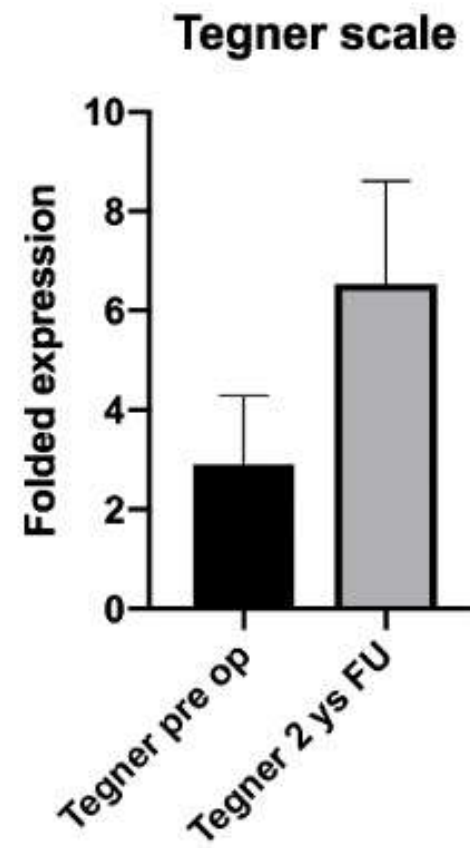
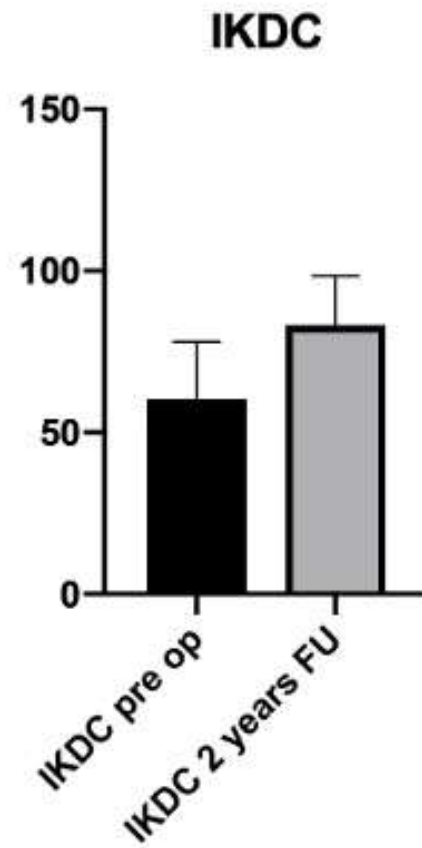
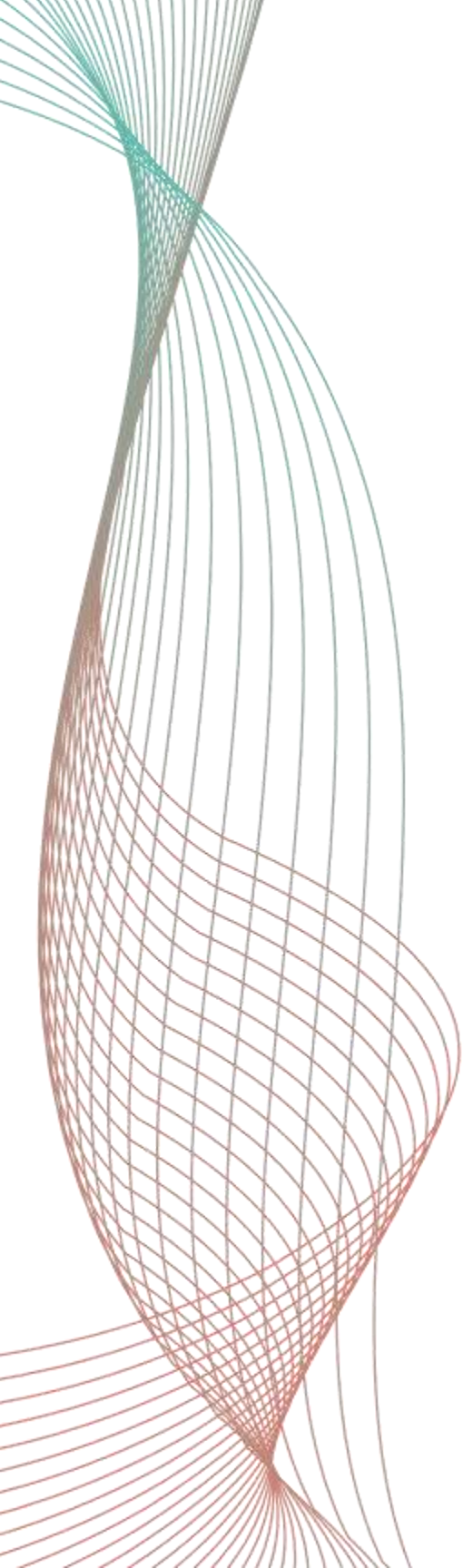
Tab.1 Demographic data of the patients.

Total No.	17 patients
Age (y), mean±SD (range)	22±3.6 (14-35)
Time from injury to surgery, mean±SD (range)	16±13.6 (2-18)
Follow-up (months), mean±SD (range)	68±24 (49-84)
Gender, n (%)	
Male	14 (82)
Female	3 (18)
Associated lesions, n (%)	
ACL tear	5 (29.4)
Medial meniscus tear	1 (5.8)
Chondral lesion of the lateral femoral condyle	4 (23.5)
Pre-injuries sport activities, n (%)	
Semi-professional	7 (41)
Recreational	10 (59)

Tab. 2 Post-operative return to sport

Post-surgery sport activities, n (%)	
Pre-injury level	13 (76.4)
Semi-professional to recreational activity	3 (17.6)
Change of sport activity	1 (6)





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RESULTS

- All patients were available at a mean follow-up of 68 ± 24 months (range, 49 to 84 months)
- Mean IKDC increased from 60.2 ± 13.5 to 83.1 ± 12 , mean Lysholm score improved from 56.7 ± 8.2 to 89.8 ± 3.2 , and mean Tegner score improved from 2.9 ± 1.3 to 6.5 ± 2
- No intraoperative or postoperative complications were reported. MRI evaluation at 6 months follow-up showed successful healing of the menisco-popliteal fascicles in all cases



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CONCLUSIONS

- The diagnosis and treatment of tears of the PMFs is still debated
- Diagnostic confirmation of tearing of the PMFs is usually determined at the time of arthroscopy
- Meniscal repair with an all-inside meniscal repair system appears to be an excellent treatment option since it yields good functional results at mid-term follow-up, no local complications, and complete radiographic healing at 6-month follow-up MRI
- Further studies are needed to confirm these promising early results



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