Psychological Readiness after Revision ACL Reconstruction: A ROAR Study

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Summary:
As the first study to date to examine psychological readiness to return to sport in young patients after revision ACLR, at 6-months post-surgery, revision ACLR patients had lower psychological readiness scores, inferior knee functional outcomes scores, and delayed return to sport clearance. Greater attention to the psychological aspects of recovery in the revision ACLR setting may be important to help optimize post-operative care and outcomes.

Category: Knee - ACL Revision

Revised Anterior Cruciate Ligament Reconstruction With Quadriceps Tendon And Lateral Extra-Articular Tenodesis: Mid-To Long-Term Clinical, Radiological and Functional Results

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Summary:
Revision ACL reconstruction with quadriceps tendon and lateral extra-articular tenodesis provides mid- to long-term anterior and rotatory laxity control, combined with a high rate of sports participation, 10 years after surgery.

Data: Background: ACL reconstruction rates vary from 2.1 to 4.9% according to different studies. It’s a technical and challenging operation with many parameters to be considered in order to achieve good results. Graft choice remains a crucial element in surgery planning. Quadriceps tendon is becoming more and more popular in ACL revision reconstruction, due to its structural and biological properties, and its availability. Lateral extra-articular tenodesis in the revision setting has also proven its ability to protect the graft.

Purpose: To evaluate mid- to long-term results of an association of quadriceps tendon autograft and lateral extra-articular tenodesis for ACL revision surgery. Methods: Patients who underwent revision ACL reconstruction with quadriceps tendon autograft and lateral extra-articular tenodesis between September 2002 and September 2015 operated by the senior author were included. Outcomes included clinical evaluation, validated clinical and patient reported outcome scores and radiographic analysis at last follow-up. Results: 90/109 eligible patients were available for follow-up at mean 10.5 (± 3.3) years post-operatively. Anterior and rotatory laxity evaluated by Lachman and Pivot-shift tests as well as the side-to-side difference on a KT1000 arthrometer showed a significant improvement at latest follow-up (p<0.005). There were 20.5% of patients showing high grade (IKDC 3 or 4) residual pivot-shift. IKDC B or more radiographic changes were correlated to the timing between injury to surgery (p=0.049) and to the existence of a meniscectomy during one of the surgeries (p=0.018). A meniscectomy during the first surgery was correlated to chondral changes (ICRS 3 or 4) during the revision surgery (p=0.023). Sports participations at last follow-up was important, 89% (n=80) of patients still practicing sports and 39% (n=31) of them the same sport than before the first ACL injury. Patients with IKDC A or B pivot-shifts had better Tegner scores than patients with IKDC C or D pivot-shifts (6 ± 2 vs 4.2 ± 1.1), p=0.0024). Re-rupture rate was 5.5% (n=5). At last follow-up, 36.7% (n=33) of patients had a complementary surgery of the same knee (33% (n=11) of screw removal, 30% (n=10) of meniscectomies). Conclusion: ACL revision surgery with quadriceps tendon autograft and lateral extra-articular tenodesis provides a maintained control of anterior and rotatory laxity, 10 years after surgery. Sports participations at latest follow-up was high. ICRS 3 or 4 chondral changes and high grade residual pivot-shift were associated with lower Tegner scores. Meniscectomy was associated with worsened radiographic outcomes. Re-operation

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