

Speed of Recovery After Arthroscopic Rotator Cuff Repair

SS-10

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Introduction: The purpose of this study was to delineate the time taken to achieve maximum improvement (plateau of recovery) and the degree of recovery observed at various time points (speed of recovery) for pain and function following arthroscopic rotator cuff repair.

Methods: An institutional shoulder surgery registry query identified 627 patients who underwent arthroscopic rotator cuff repair between 2006 and 2015. Measured ROM, patient satisfaction, and patient reported outcome measures (PROMs) were analyzed for pre-operative, 3-month, 6-month, 1-year, and 2-year intervals. Subgroup analysis was performed based on tear size using retraction grade and number of anchors used.

Results: As an entire group, the plateau of maximum recovery for pain, function, and motion occurred at 1 year. Satisfaction with surgery was > 96% at all time points. At 3 months, 74% of improvement in pain and 45-58% of functional improvement was realized. However, only 22% of elevation improvement was achieved ($p < 0.001$). At 6 months, 89% of improvement in pain, 81-88% of functional improvement, and 78% of elevation improvement was achieved ($p < 0.001$) (Table I). Larger tears had a slower speed of recovery for SANE scores, forward elevation, and external rotation (Table II). Smaller tears had higher motion and functional scores across all time points. Tear size did not influence pain levels (Tables III and IV).

Conclusion: The plateau of maximum recovery following rotator cuff repair occurred at 1 year with high satisfaction rates at all time points. At 3-months, approximately 75% of pain relief and 50% of functional recovery can be expected. Larger tears have a slower speed of recovery.



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Introduction: To evaluate the role of combined ACL and Anterolateral Ligament (ALL) reconstruction in reducing graft rupture rates and improving return to sport in a high-risk population of young patients participating in contact sports.

Methods: A prospective series of 502 patients undergoing primary ACL reconstruction with either bone-patellar tendon-bone (BPTB $n=105$), quadrupled hamstring tendons (4HT $n=176$), or combined hamstring tendon and ALL reconstruction (HT+ALL $n=221$) was studied. Kaplan Meier analysis and multivariate Cox regression models were used to identify prognosticators of outcome.

Results: The mean age was 22.4 ± 4.0 years (range 16-30). The mean duration of follow-up was 38.4 months (range 24-54). The mean post-operative subjective IKDC score was 84.4 ± 11.6 . There was no difference between groups with respect to the postoperative improvement in IKDC or the mean side-to-side laxity difference 0.5 ± 0.9 mm. The rate of ACL graft failure in patients with HT+ALL grafts was 3.1 times less than with 4HT [hazard ratio, 0.327; 95% CI 0.13-0.758] and 2.5 times less than with B-PT-B [hazard ratio, 0.393; 95% CI 0.153-0.953]. There was no significant difference in the graft failure rate between 4HT and B-PT-B [hazard ratio, 1.204; 95% CI 0.555-2.66]. Overall, 93% of patients returned to sport at latest follow-up. Return to pre-injury level of sport was 64.6%. HT+ALL grafts were associated with higher odds of return to pre-injury level of sport than 4HT [Odds ratio, 1.938; 95% CI 1.174-3.224].

Conclusion: This study is the first to demonstrate that the rate of ACL graft failure with HT+ALL is significantly less than with ACL reconstruction performed with B-PT-B or 4HT only. HT+ALL is also associated with significantly greater odds of returning to the pre-injury level of sport when compared to 4HT. Clinical results at latest follow up show no evidence of increased complications or over-constraint compared to other common techniques of ACL reconstruction.

Anterolateral Ligament Reconstruction is Associated with Significantly Reduced ACL Graft Rupture Rates at a Minimum Follow Up of 2 Years

SS-11

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Single-Bundle Anterior Cruciate Ligament Reconstruction: Restoration of the Native Footprint - A Simple 3D CT Radiographic Evaluation for All Surgeons

SS-12

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Introduction: Anatomic ACLR leads to superior outcomes by restoring kinematics, reestablishing stability, minimizing recurrent injuries, and preventing degenerative changes. Surgical technique may play a role in the development and progression of knee OA. The ACL graft footprint position was evaluated following single-bundle, TT ACLR to determine if this technique can restore the

