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ACL Reconstruction with Monoloop Lateral Extra-Articular Tenodesis Results in a Reduced Revision Rate: A Large Comparative Cohort Study

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Summary:
This large comparative study on 785 ACL reconstructed patients with or without a monoloop lateral tenodesis (minimum follow-up of 2 years) clearly demonstrates a reduced revision rate especially in patients at higher risk ,while maintaining a similar safety and complication profile

Abstract:

Introduction

Reconstruction of the antero-lateral structures has regained immense interest to reduce the revision rate of ACL reconstruction. A wide variety of surgical techniques have been described but only little is know on the revision rate. The Antwerp Monoloop lateral extra-articular tenodesis (AMLET) uses a pediculated ITB strip tunneled under the lateral collateral ligament and fixed with a staple on the distal femur

Methods

and Materials
A retrospective clinical study with a minimum follow up of 2 years on 785 patients with quadrupled semitendinosus ACL reconstruction with or without the Antwerp Monoloop extra-articular tenodesis. A cohort of 566 patients with an isolated ACL reconstruction (group 1) and 219 patients with a combination of ACL reconstruction and AMLET were evaluated with a follow up from 2 to 7 years. ACL revision rate, resurgery rate for cyclops and arthrofibrosis, resurgery for meniscus lesions, infection, contralateral ACL rupture, Tegner activity level and satisfaction rate were recorded. A subgroup analysis was performed on specific subgroups: males vs females, age <25 years, Tegner >8 and soccer players.

Results

The overall revision rate was 6% and 3% for group 1 and 2. Resurgery rates for cyclops and arthrofibrosis, and meniscus reinjury were similar, respectively 7 and 3%. The infection rate was 1%. The contralateral ACL rupture rate was 9 and 11%. The revision rate in group 1 and 2 below 25 years of age was 15% and 2%. Resurgery rate for cyclops and arthrofibrosis was higher in female patients with AMLET (18% and 6%). Revision rate in Tegner >8 and soccer was 10 vs 1% and 10 vs 5%, respectively

Conclusion

ACL reconstruction in combination with Monoloop extra-articular tenodesis results in significantly lower revisions rates, especially in the high-risk patient population.