

## **High failure risk associated with staged procedure for meniscus injury in ACL-deficient knee: A retrospective study on meniscus repair preceding ACLR.**

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### **Purpose**

To investigate the failure rate, predictive factors associated with failure and clinical outcomes after a two-stage surgery; meniscus repair followed by ACLR.

### **Methods**

Patients with a concomitant meniscus and ACL injury who underwent a two-stage surgery between January 2015 and January 2021 were identified. The primary outcome was meniscal repair failure, defined as a reoperation. A Cox-regression analysis was used in order to analyze factors associated with meniscal repair failure within 3 years after the a meniscal repair. Secondary outcomes were ROM, anterior knee laxity and the KOOS) at 1 and 2 years, follow-up. The thresholds of PASS, TF, MIC were applied to KOOS4.

### **Results**

A total of 150 patients were included. Meniscal repair failure rate after 3 years was 36.7%. Failure of meniscal repair was significantly associated with a time interval >1 year between the meniscal repair to the ACLR, medial meniscus repair, and female sex. The age of the patient was not associated. At the 6-month follow-up, most patients showed normal knee laxity; 5 patients showed loss of ROM. At the 2-year follow-up, PASS was achieved in 53.4%, TF occurred in 1.7%, and MIC was reached in 36.4%.

### **Conclusion**

The meniscus repair failure rate after staged procedure was 36.7% at 3 years. A longer time interval from meniscal repair to ACLR, medial meniscus repair, and female sex were associated with an increased risk. Even though a high meniscus repair failure rate, it had no negative impact on outcomes at 2 years follow-up.