



## # 5735 All-inside technique for meniscal repair in high level athletes. Back to sports and failure

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**Purpose:** The purpose of this study is to present the results of all-inside meniscal repair in high level athletes focusing on failure rate and factors associated with failure

**Methods and Materials:** 91 high-level athletes (79 male and 12 female)(Tegner  $\geq 6$ ) were prospectively evaluated following meniscal repair with Fast-Fix system. All athletes were treated within 6 weeks from onset of symptoms and suffered body and/or posterior horn, red or red-white zone tear with intact posterior root. Only longitudinal, full thickness tears were included in the study. Tears were categorised as small (<1cm), medium (1-2 cm) and large (>2cm) and time to operation was also estimated. Return to play time was calculated and all clinical failures were arthroscopically proved and submitted to meniscectomy.

**Results:** In total 96 meniscal repairs were followed for a mean 36.5 ( $\pm 16.14$ ) months. All procedures were performed within 23.8 ( $\pm 10.1$ ) days from the incidence and 72 repairs were combined with ACL reconstruction. Small tears were found in 19 cases, medium in 54 and large in 23 cases. All patients returned to play at a mean time of 7 ( $\pm 1.3$ ) months. Fourteen meniscal repairs failed and they were revised with partial meniscectomy within 12.6 ( $\pm 10.1$ ) months, presenting a failure rate of 14.6%. No cartilage deterioration was found during revision surgery, except for one case in which the anchor caused cartilage delamination after the failure of the repair. ACL tears were accompanied by medium or large tears ( $p=0.005$ ). Success of the repair was not influenced by ACL reconstruction ( $p=0.54$ ). Smaller lesions had higher success rates compared to medium and large ones (95%, 85% and 78% respectively), although the differences were not statistically significant ( $p=0.52$ ).

**Conclusion:** All-inside meniscal repair in athletes has a failure rate of 14.6% and it is not influenced by ACL reconstruction or the length of the tear.