

## Clinical Evaluation Of A Continuous Series Of 55 Cases Of Partial Ligament Anterior Cruciate Ligament By The TIs Technique<sup>®</sup> (Short Graft Hamstring).

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### Summary:

This prospective study of 55 patients who underwent a partial knee ACL reconstruction using a short graft has shown an excellent results.

### Abstract:

#### Introduction

Various techniques of repair partial tears of the Anterior Cruciate Ligament (ACL) have been proposed (patellar tendon or hamstring). The main objective of the study was to evaluate the clinical results of uni-fascicular ACL reconstruction using a single tendon hamstring.

#### Materials and methods

A prospective single-center study has included all patients which underwent surgery for a partial tear of the ACL from January 2008 to December 2009. The series included 21 women and 34 men, average age 26 (16-48) years. All patients underwent a short graft reconstruction: in 10 cases, a uni-fascicular anatomical reconstruction of the ACL using a gracilis short graft (45 to 55 mm) for the posterolateral bundle (PL) and in 45 cases using a semi-tendinous short graft (50 to 60 mm) for anteromedial bundle (AM). The evaluation was performed using the Lysholm scores, the IKDC, the Lachman test, pivot-shift test and radiological laxity measurement with Telos arthrometer. The minimum follow-up was 2 years. Six patients were excluded from analysis: 1 for streptococcal septic arthritis and 5 lost to follow or for missing data.

#### Results

Fifty-five patients were reviewed at 28 (24-38) months follow-up. The Lysholm score was 60 preoperatively and 92.5 postoperatively ( $p < 0.05$ ). The mean subjective IKDC score has improved from 60.1 to 92.9 ( $p < 0.05$ ). The preoperative objective IKDC score was 0% in group A, 11% group B, 78% Group C and 11% Group D. At last follow-up, the objective IKDC score was 64% in group A, 28% group B, 8% group C and 0% group D. The differential laxity on Telos was preoperatively  $4.73 \pm 1.97$  mm and postoperatively  $2.5 \pm 1.2$  mm. The postoperative Lachman-Trillat test was negative in 92% of patients, positive grade 1 in 6%, positive grade 2 in 2%. The pivot shift test was negative in 96% of cases, grade 1 in 4% of cases. No rupture of the grafts was observed. Two patients had complications: 1 algodystrophy of the knee and 1 cyclops syndrome post-surgery.

#### Conclusion

This prospective study of 55 patients who underwent a partial knee ACL reconstruction using a short graft has shown an excellent results. The use of a single hamstring tendon is adequate for this repair. If a partial tear of the ACL is diagnosed, a reconstruction of the AM or PL bundle should be considered.