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Extra-articular tenodesis in ACL surgery: comparison of two techniques: anatomical ALL reconstruction vs ITB tenodesis

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Faculty Disclosure Information

- Nothing to disclose

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INTRODUCTION

- ACL reconstruction is common but the risk of re-injury remains
- Lateral extra-articular procedures (LEAP) reduce re-rupture rates
- Two LEAP techniques
  - **Anterolateral ligament reconstruction (ALL-R)**
  - **Iliotibial band tenodesis (ITB-T)**
- Aim: Compare clinical and patient-reported outcome measures (PROMs), complications, failure rate, and revision rate between **ALL-R** and **ITB-T**

MATERIALS & METHODS

- Retrospective study of 108 ACL reconstructions with LEAP
  - 66 **ALL-R**
  - 42 **ITB-T**
- Inclusion criteria: age 16-50, clinically and radiologically confirmed ACL rupture and clinical outcome data (PROMs)
- PROMs: IKDC, Lysholm Knee Score, Tegner Score, NRS pain scale
- Data collection: Baseline, 12 months, and 24 months
- Primary outcome: Clinical outcomes (PROMs)
- Secondary outcome: re-rupture rate, re-operation rate (meniscal tears, cyclops…)

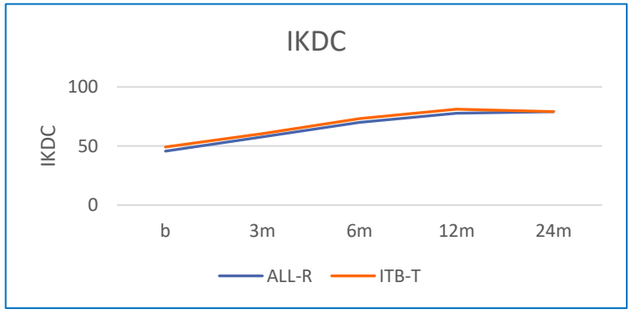

Figure 1: IKDC-scores of patients with ALL-R and ITB-T preoperatively (=b), 3 months, 6 months, 12 months and 24 months postoperatively

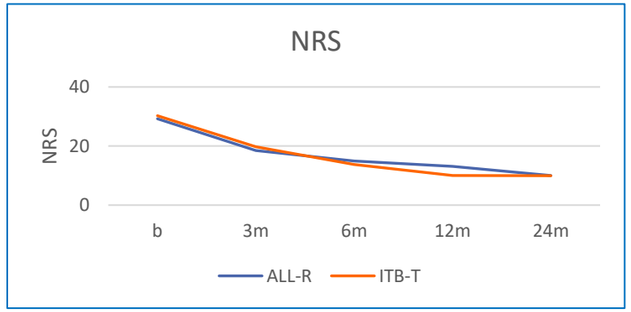

Figure 2: NRS-score of patients with ALL-R and ITB-T preoperatively (=b), 3 months, 6 months, 12 months and 24 months postoperatively

RESULTS

- No significant difference in PROMs (IKDC, Lysholm, Tegner, NRS) between groups at any time
  IKDC: significant improvement in both groups at 3 months post-op
- NRS pain scores during activity reduced significantly in both groups at 3 months
- **Re-ruptures: ALL-R:** 1 at 12 months **ITB-T:** 0 at 12 months
  3 at 24 months **2** at 24 month
  No statistical difference. 3 concomitant RAMP repairs in re-ruptures: **ALL-R** (**1/3**) **ITB-T** (**2/2**)
- **Re-operations**: **ALL-R**: 4 by 12 months (3 cyclops, 1 meniscus tear)
  ITB-T: 0 by 12 months
  1 by 24 months (meniscus tear)
  No statistical difference. Odds ratio for re-operation ~2.4.

	ALL-R	ITB-T
Age mean ± SD (range)	24.2 ± 6.8 (15-46)	24.3 ± 9.1 (15-50)
Male sex n (%)	51 (77%)	27 (64%)
Lateral meniscectomy n (%)	20 (30%)	6 (14%)
Lateral meniscal suture n (%)	6 (9%)	1 (2%)
Lateral meniscal root repair n (%)	2 (3%)	0 (0%)
Medial meniscectomy n (%)	4 (6%)	6 (14%)
Medial meniscal suture n (%)	9 (14%)	6 (14%)
Medial RAMP repair n (%)	10 (15%)	2 (5%)

Table 1: Characteristics of patients with ALL-R and ITB-T Intervention

DISCUSSION

- No significant differences in functional outcomes, complications, revision, and failure rates between **ALL-R** and **ITB-T**
- Both techniques are similarly effective in addressing rotatory instability in ACL ruptures
- Re-ruptures with medial meniscal RAMP lesions occurred in both groups—warranting further investigation into their significance

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