

Reproducibility of T All-Inside Arthroscopic ATFL Repair With Internal Brace Augmentation: Multicenter Midterm Outcomes in Chronic Lateral Ankle Instability

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Introduction: Chronic lateral ankle instability (CLAI) may require surgery after failed nonoperative care. We evaluated functional outcomes of a true all-inside arthroscopic anterior talofibular ligament (ATFL) repair augmented with suture tape internal brace, and whether concomitant intra-articular lesions or postoperative stiffness influenced results.

Methods: Multicenter retrospective cohort of 51 consecutive CLAI patients treated from March 2021 to September 2023. FAAM, LEFS, MOXFQ and EQ-5D VAS were collected preoperatively and at final follow-up. Paired comparisons used Wilcoxon signed-rank or paired t tests. Subgroup analyses compared patients with/without associated lesions and with/without mild postoperative stiffness.

Results: Mean follow-up was 24 months. All scores improved significantly ($p < 0.001$) with large effect sizes: FAAM 32.97 ± 20.98 to 95.57 ± 6.13 ($d = 2.83$); LEFS 44.75 ± 17.21 to 95.95 ± 6.83 ($d = 2.83$); MOXFQ 57.11 ± 20.50 to 96.81 ± 6.04 ($d = 1.77$); EQ-5D VAS 65.39 ± 15.09 to 92.59 ± 9.92 ($d = 1.45$). Patients with concomitant lesions or mild stiffness had slightly lower absolute postoperative scores, but functional gain (Δ) did not differ between subgroups (all $p > 0.05$). No recurrence of instability was observed.

Conclusions: True all-inside arthroscopic ATFL repair with internal brace augmentation provides substantial functional improvement, high stability and low complications in CLAI, without clinically relevant compromise from concomitant lesions or mild postoperative stiffness.

Keywords: Arthroscopy; Ankle joint; Joint instability.

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