

Superior Rates of Return to Sport following Anterior Talofibular Ligament Repair Augmented with Suture-Tape compared to Anterior Talofibular Ligament Repair Alone: A Retrospective Comparative Study

Grace W Randall, James Joseph Butler, Samantha Alison Rettig, Mohammad Talha Azam¹, John G Kennedy²
¹NYU Langone, ²New York University

INTRODUCTION: Chronic ankle instability occurs in 15-20% of patients with ankle sprains who do not recover following conservative management and typically requires surgical intervention. There is recent interest in Anterior Talofibular Ligament (ATFL) Repair techniques that may improve outcomes and expedite recovery. Evidence for the use of suture-tape as an internal in ATFL Repair is limited in the literature. The purpose of this study was to retrospectively assess outcomes and return to sport following ATFL Repair with and without suture-tape (ST) augmentation at greater than 1-year follow up.

METHODS: Chart review was conducted to identify patients who underwent Anterior Talofibular Ligament (ATFL) Repair with a minimum of 1-year follow up. Data collected and assessed included: patient demographics, pathological characteristics, treatment characteristics, Foot and Ankle Outcome Score (FAOS), visual analog scale (VAS) scores, return to sport (RTS), complications, and failures. Linear regression was performed to identify potential predictors of outcomes.

RESULTS: Eighteen cases of ATFL repair augmented with suture-tape (ST) and 20 cases of ATFL repair alone were included. The mean follow-up in the ST cohort was 20.8 ± 7.9 months and the mean follow-up time in the ATFL repair alone cohort was 25.3 ± 13.2 months. Improvements in FAOS and VAS scores were observed in both cohorts at final follow up ($p < 0.01$). No statistically significant difference in FAOS and VAS scores at final follow up was found between the 2 cohorts. The mean time to RTS was 8.6 ± 3.3 weeks in the ST cohort and 13.3 ± 2.7 weeks in the ATFL repair alone cohort ($p < 0.01$). No statistically significant difference in complication rates nor failure rates was observed between the 2 cohorts.

DISCUSSION AND CONCLUSION: This retrospective study found that ATFL Repair with and without suture-tape augmentation produced comparable subjective clinical outcomes, complication rates, and failure rates at short-term follow up. A superior mean time to RTS was found in the ST cohort. The early results of this surgical technique are promising, but further studies with larger patient cohorts and longer follow-up times are needed to determine the optimal role of suture-tape augmentation of ATFL repair.