

Paper #104

Minimum Five-Year Outcomes and Clinical Survivorship for Arthroscopic Transosseous Equivalent Double Row Rotator Cuff Repair: A Comparison of Techniques

Jonas Pogorzelski, MD, PhD, MHBA, GERMANY

Erik M. Fritz, MD, UNITED STATES

Marilee P. Horan, MPH, UNITED STATES

J. Christoph Katthagen, MD, GERMANY

Zaamin B. Hussain, MD, UNITED KINGDOM

Jonathan Godin, MD, MBA, UNITED STATES

Peter J. Millett, MD, MSc, UNITED STATES

Steadman Philippon Research Institute and The Steadman Clinic
Vail, CO, UNITED STATES

Summary:

TOE rotator cuff repair results in significant clinical improvement and excellent survivorship at a minimum of 5 years follow-up, using either the knotted suture bridge or the knotless tape bridge repair technique.

Abstract:

Introduction

Despite the widespread use of arthroscopic double row transosseous equivalent (TOE) rotator cuff repair (RCR) techniques, mid-term outcome data is limited.

The purpose of this article was to assess mid-term clinical outcomes of patients following arthroscopic TOE RCR using either knotless tape bridge (TB) repair or knotted suture bridge (SB) repair technique. We hypothesized that there would be significant improvements in patient reported outcomes with TOE RCR that would be durable over time. We also hypothesized that the knotless tape bridge (TB) technique would yield equivalent clinical results to the knotted suture bridge (SB) technique, but that there would be differences in re-tear types between the two TOE techniques.

Methods

Patients included were a minimum of five years from an index arthroscopic double row TOE repair using either a knotless TB or knotted SB technique for one, two, or three tendon full-thickness rotator cuff tears involving the supraspinatus tendon. Pre- and postoperative ASES, SF-12 PCS, QuickDASH, SANE, and satisfaction scores were collected. Scores were also stratified and compared based on primary and revision repair, tear location, and tear chronicity. Outcomes between techniques were contrasted, and survivorship analysis was conducted, with failure defined as progression to revision surgery.

Results

192 shoulders were included with a mean follow-up of 6.6 years (range, 5.0–11.0 years). Fifteen shoulders (7.8%) underwent revision cuff repair. All scores improved significantly for TB repair ($p < 0.001$). For SB repair, all scores improved, but only ASES and SF-12 PCS scores ($p < 0.05$) demonstrated statistical significance. There were no statistically significant differences between repair techniques when stratified by primary and revision repairs, tear location, or chronicity. Postoperative clinical survivorship was 96.6% and 93.6% for knotted SB repairs and 96.7% and

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Paper #104

93.9% for knotless TB repairs at 2 and 5 years, respectively.

Discussion

TOE rotator cuff repair results in significant clinical improvement and excellent survivorship at a minimum of 5 years follow-up, using either knotted SB or knotless TB repair techniques. Equivalent results were obtained with both TOE techniques. Patients undergoing repair with a TOE showed significant improvements in patient reported outcomes that were durable at a minimum of 5 years postoperatively.