

## **Impact of Rheumatoid Arthritis on Outcomes Following Trigger Finger Release**

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**INTRODUCTION:** Although hand surgeons are often taught to preserve the A1 pulley in patients with rheumatoid arthritis (RA) during training, the outcomes of this approach have yet to be studied. The authors hypothesize that surgical and patient-reported outcomes between patients with and without RA undergoing trigger finger release using A1 pulley release will be comparable.

**METHODS:** Adult patients who underwent trigger finger release at a tertiary care center (2015-2022) were retrospectively identified. Data was collected on demographics, surgical characteristics, and steroid injections. Outcomes of interest included follow up duration, complications, revision surgery, revision surgery description, and patient-reported outcome measures (PROM). Statistical analyses were conducted (alpha 0.05).

**RESULTS:** 171 patients with and 336 patients without RA were identified. RA patients more commonly had surgery on multiple fingers (20.5% vs. 17.6%;  $p=0.03$ ), underwent additional procedures (tenosynovectomy or flexor tendon excision) with A1 pulley release (45.6% vs. 10.7%;  $p<0.001$ ), and received local anesthesia with sedation and tourniquet (67.3% vs. 48.3%;  $p<0.001$ ). Following surgery, they also required steroid injections at higher rates (4.1% vs. 0.9%;  $p=0.036$ ). QuickDASH scores were worse in the RA cohort preoperatively ( $44.5 \pm 21.4$  vs.  $36.0 \pm 19.2$ ;  $p=0.003$ ), 6 months postoperatively ( $20.6 \pm 20.0$  vs.  $11.5 \pm 15.0$ ;  $p=0.011$ ), and 2 years postoperatively ( $33.3 \pm 26.6$  vs.  $17.4 \pm 18.3$ ;  $p=0.007$ ).

**DISCUSSION AND CONCLUSION:** This study compares outcomes following trigger finger release based on a past medical history of rheumatoid arthritis, highlighting differences in the type of procedure performed and patient-reported outcomes, but comparable rates of postoperative complications and reoperations. Undergoing tenosynovectomy or flexor tendon excision in conjunction with A1 pulley release in RA patients were associated with similar postoperative and superior patient-reported outcomes. A1 pulley release in patients with RA may not be as detrimental as previously thought, and surgeons may consider performing it alongside tenosynovectomy or flexor tendon excision without concern for additional complications.