

Risk of Extensor Tendon Injury after Distal Radius Fracture is Not Associated with Either Operative or Nonoperative Treatment

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INTRODUCTION:

Distal radius fractures (DRF) are among the most frequently encountered fractures in all of orthopaedics and hand surgery. One of the most common complications of DRF treatment is extensor tendon injury (ETI). This study was undertaken to better understand the incidence of ETI after operative vs non-operative treatment of DRF with the hypothesis that greater rates of ETI will be seen in patients with operative treatment.

METHODS: The TriNetX US Collaborative Network was queried for all patients diagnosed with DRFs from 2017 to 2022. Cohorts were defined by inclusion and exclusion of International Classification of Diseases-10 (ICD-10) and Current Procedural Terminology (CPT) codes for DRF and split into operative and nonoperative groups and. Cohorts were matched and analyzed for differences in characteristics and outcomes.

RESULTS:

A total of 37,380 patients from 2017-2022 were identified. Of these patients, 8,716 were treated operatively, and the remaining 28,664 patients were not. There was a total of 578 ETIs identified after a DRF during the study period, yielding an 5 year risk of injury of 1.77%. After propensity matching, there was no significant difference in the risk of ETI in the operative compared to non-operative groups (1.97% vs 1.60%; P=0.73).

DISCUSSION AND CONCLUSION:

The hypothesis was not upheld, as ETI was found to not have a higher incidence rate after operative treatment of DRF vs non-operative treatment. However, patients should be advised of an approximate 2% rate of ETI irrespective of treatment with all distal radius fractures.