

Is DRUJ Arthritis a Problem After Total Wrist Arthrodesis?

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INTRODUCTION

- The approach to surgical management of concomitant radiocarpal (RC) and distal radioulnar joint (DRUJ) arthritis can be quite challenging, specifically in terms of sequence and timing of managing both sites of arthritis
- Little is known regarding the natural history of DRUJ symptoms in light of radiographic arthritis
- The purpose of this study was to examine patients with radiographic evidence of both RC and DRUJ preoperatively who underwent total wrist arthrodesis alone, to determine the need for reoperation to address their DRUJ arthritis

METHODS

Patient Population

- Retrospective chart review
- All total wrist arthrodesis from 2008-2018 (n=183)
- Exclusion criteria:
 - Prior DRUJ procedure or at time of arthrodesis (n=46)
 - Brachial plexus injury (n=25) or contracture (n=11)
 - History of infection (n=5)
 - Acute trauma (n=1)

Outcomes

- Secondary surgery to treat DRUJ arthritis
- Progression of DRUJ arthritis postoperatively



RESULTS

- Average clinical follow-up was 5.7 years (range: 1.5-12.7 years)
- 4/39 (10%) who had radiographic evidence of DRUJ arthritis prior to total wrist arthrodesis went on to require a second surgery to address symptomatic DRUJ arthritis postoperatively
 - 2 underwent Darrach procedure
 - 2 underwent ulnar head arthroplasty
 - At average of 20 months (range: 3-60 months) after arthrodesis
- There was a significant association with postoperative DRUJ arthritis classification and the need for secondary DRUJ procedure ($p=0.010$) (Table 1)
- There was no significant association with indication for arthrodesis and the need for secondary DRUJ procedure ($p=0.585$) (Table 2)

TABLE 1: POSTOPERATIVE DRUJ ARTHRITIS

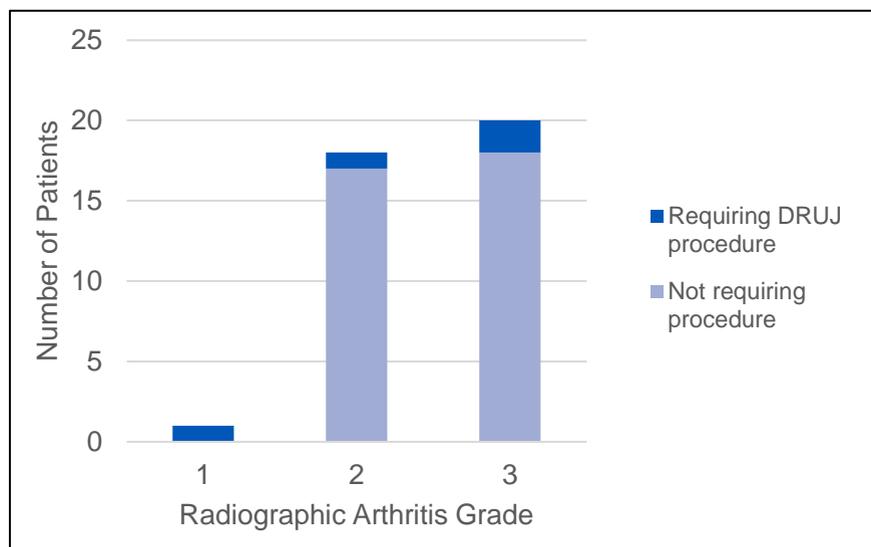
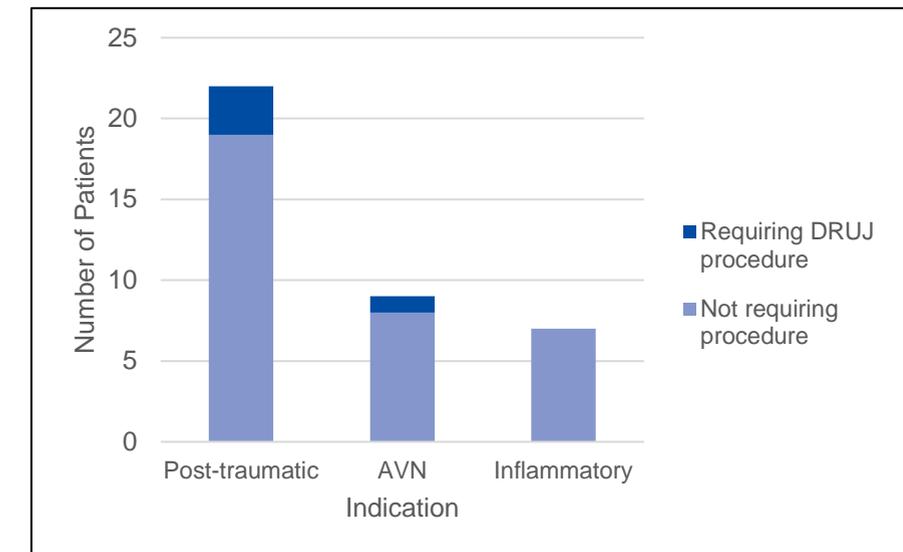


TABLE 2: INDICATIONS FOR ARTHRODESIS



CONCLUSIONS

- A small subset of patients (10%) may require a secondary procedure to treat DRUJ after initial treatment of RC arthritis
- It is difficult to predict which patients will be symptomatic and go on to needing a second surgery
- Therefore, treating RC arthritis alone is a reasonable initial approach, but patients should be counseled on the possible need for further surgery to achieve full pain relief