indicated when medical management fails to control these symptoms or when progression of dorsal prominence of the ulna head might lead to extensor tendon rupture. The Dar-rach and Sauvé-Kapandji (S-K) procedures are commonly used in the setting of advanced RA affecting the DRUJ. However, there is a paucity of literature comparing the outcomes of these procedures and none since the introduction of biologic agents for RA. The purpose of this study is to compare the clinical and radiographic outcomes of the Dar-rach and S-K procedures in RA patients.

METHODS: This is a retrospective, single institution cohort study of RA patients who underwent the Darrach or Sauvé-Kapandji procedure between 2008–2016. Ulnar translation, range of motion, and functional improvement were compared.

RESULTS: A total of 9 patients (13 wrists) underwent the Darrach procedure and 9 patients (11 wrists) underwent the S-K procedure. The average duration of RA was 15.3 years and the average length of follow-up was 1.3 years. Patients in the S-K group were significantly younger than patients in the Darrach group (p<0.05) and trended towards greater preoperative ulnar translation (p=0.07). Pain, patient-reported function, and range of motion improved in both groups. The degree of ulnar translation did not significantly change after either procedure.

CONCLUSION: Given the similar outcomes between the two procedures, we found no evidence that the S-K procedure is superior to the Darrach procedure or vice versa in terms of clinical or radiographic disease progression. However, when surgery is indicated for younger RA patients with DRUJ disease and ulnar translation, the S-K may be better suited to prevent radiocarpal joint dislocation.

Treatment of Open Hand Fractures in the Emergency Department: Bedside Washout Vs Operative Washout and Infection Risk as a Correlate of Time to Definitive Operative Management

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INTRODUCTION: Open fractures distal to the carpus are a common indication for hand consultation in the Emergency room. There is little consensus as to the best management of these patients and data obtained from long bone injuries are often utilized in formulating surgical treatment algorithms.

QUESTION: Is operative washout and debridement of open hand fractures superior to bedside washout and debridement in the Emergency Department (ER)? Does the interval time to definitive operative intervention correlate with infection risk?

HYPOTHESIS: Operative washout and debridement is not superior to bedside management in the ED. Patients treated definitively earlier will have a lower risk of infection.

METHODS: A retrospective chart review was performed on 303 open fractures distal to the carpus treated at a single institution by the plastic surgery. Patients were identified using a RedCAP trauma database. Patients with devascularizing injuries were excluded. Institutional IRB approval was obtained.

RESULTS: Of the 303 patients identified, 276 (91%) had a crush mechanism with the remaining either blunt or sharp. Only 3 patients (<1%) went to the operating room (OR) for a washout immediately. 300 patients underwent a bedside washout and debridement. A majority of patients were treated with IV cefazolin (57%) and discharged on cephalaxin (84%) for an average of 7.29 days. 81 patients (27%) underwent a surgical procedure. Injury patterns for intervention were: 23 patient with distal phalanx (P3) (28%), 7 with middle phalanx (P2) (7%), 15 with proximal phalanx (P1) (19%), 8 with metacarpal (MTC) (10%), 6 with thumb fractures (7%), and 22 with multiple injuries to the hand (27%). The average time to definitive management was 11 days with a median time to surgery of 7 days. Time to surgery, average: P3 13 days, P2 6 days, P1 6 days, MTC 5 days, Thumb 3 days, Multiple 9 days. There were 15 infections in all patients (4.9%), and 10 of these were in operative patients (12% of operative fractures). The average time to surgery in a patient who developed an infection was 5.7 days (range 1–11). On logistical regression analysis there appears to be roughly a 6% increase in the risk of infection each day the patient is delayed from definitive operative management, though this did not reach significance secondary to the overall small number of infections.
SUMMARY: Infection rates are similar in patients who undergo bedside washout in the ER as compared to those taken directly to the OR, though few in the study went directly to the OR. There appears to be an increased risk of infection the longer it takes for definitive operative management but this did not reach significance secondary to small sample size.

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Scratch Collapse Test for Carpal Tunnel Syndrome: A Systematic Review and Meta-Analysis

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BACKGROUND: Despite the fact that carpal tunnel syndrome (CTS) is the most common entrapment neuropathy, the diagnostic accuracy of clinical screening examinations for CTS is controversial. The scratch collapse test (SCT) is a novel test that may be of diagnostic advantage. The purpose of our study was to determine the diagnostic accuracy of the scratch collapse test for CTS.

METHODS: A literature search was performed using PubMed (1966 to April 2018); Ovid MEDLINE (1966 to April 2018); EMBASE (1988 to April 2018); and Cochrane Central Register of Controlled Trials (CENTRAL) (The Cochrane Library, to April 2018). We examined the studies for the pooled sensitivity, specificity, and likelihood ratios of the SCT. This review has been registered with PROSPERO (CRD42018077115).

RESULTS: The literature search generated 13 unique articles. Seven articles were included for full text screening and three articles met our inclusion criteria, all of which were level II evidence with low risk of bias (165 patients). Pooled sensitivities, specificities, positive likelihood ratio, and negative likelihood ratios were 0.32 [95% CI (0.24, 0.41)], 0.62 [95% CI (0.45, 0.78)], 0.75 [95% CI (0.33, 1.67)], and 1.03 [95% CI (0.61, 1.74)], respectively. The calculated AUSROC was 0.25, indicating a low diagnostic accuracy.

CONCLUSION: The SCT has poor sensitivity, however, it is moderately specific. Based on the current literature and their variable quality of the evidence, we conclude that the SCT is not an adequate screening test for detecting CTS.

Direct and Indirect Utilities of Severe Versus Non-Severe Carpal Tunnel Syndrome Patients

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BACKGROUND: Carpal tunnel syndrome (CTS) is the most common entrapment neuropathy. To understand how patients experience CTS, quality of life (QoL) can be measured as a patient-reported outcome. One way to capture QoL is through health utility, which represents health states on a scale of 0 (death) to 1 (perfect health). Utilities can be measured using direct methods, where patients’ preferences are mapped directly onto the utility scale, and indirect methods, where patients complete a questionnaire that is converted to population norms. Utilities can be integrated into decision analysis models and combined with cost data to perform economic analysis, which is especially important in the face of rising healthcare costs. To date, few utility methods have been used to evaluate CTS, with direct methods especially lacking.

PURPOSE: Our primary objective is to improve the understanding of QoL in CTS patients, through comparing direct and indirect utilities of patients with non-severe (mild or moderate) versus severe CTS. Our secondary objective is to determine inter-instrumental agreement of the various utility measurement methods.