

Browser's notes

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Correlation of radiographic measurements with patient-centered outcomes in hallux valgus surgery.

Matthews M, et al.

Foot Ankle Int. (2018); 39(12):1416–22

A retrospective analysis of 80 scarf bunionectomy patients (mean age 52.3 years, 94% female) compared pre- and post-operative radiographic measurements with patient reported foot and ankle outcome scores (FAOS). Measurement of first-second intermetatarsal angle (IMa), hallux valgus angle (HVa), metatarsal protrusion (Nisonne's method), and tibial sesamoid position were performed by a single observer on preoperative, 6 week and "final" (median 1.1 years, range 0.9–1.8 year) weight-bearing foot radiographs. FAOS were obtained preoperatively and at least 10 month following surgery. Scarf/akin bunionectomy was performed in 79% of subjects with only scarf surgery in the remainder, although concomitant hammertoe and tailor's bunionectomies may have been performed. Following surgery, FAOS scores and radiographic measures significantly improved. However, at final imaging, there was no more than a weak correlation between any of the radiographic scores and any of the FAOS subscores; e.g. best correlation was IMa and sports/recreation subscore ($r = -0.33$, $p = 0.005$). Comparison of the preoperative HVa, change in HVa following surgery and IMa showed no significant correlation with FAOS. "Suboptimal" sesamoid position on postoperative radiographs did not correlate with any FAOS subscore. All of the multivariate statistical models attempted showed only very weak correlations with FAOS. The authors conclude that when assessing operative results, there may be an overemphasis on the technical outcomes measured radiographically.

Increasing numbers of shoulder corticosteroid injections within a year preoperatively may be associated with a higher rate of subsequent revision rotator cuff surgery.

Desai VS, et al.

Arthroscopy. (2019); 35(1):45–50

This retrospective study investigated the relationship between preoperative subacromial steroid injections (SSI) and the rate of revision surgery following arthroscopic rotator cuff repair (aRCR). 123,459 aRCR patients were identified by ICD-9 and CPT codes from 2 large billing databases (Medicare Standard Analytic Files and Humana Administrative claims). Patients were assigned to one of 4 groups based the number of preoperative SSIs performed within 1 year prior to operation: 1 injection ($n = 4710$), 2 injections ($n = 2205$), 3 or more injections ($n = 1859$), control ($n = 114,865$ patients without preoperative SSI and matched for age, sex, tobacco use, history of diabetes and other comorbidities). No significant difference in the rates of revision rotator cuff surgery performed within 2 years of initial aRCR were found between patients receiving 1 preoperative SSI and no injection controls for either patients with Medicare (3.8% [odds ratio, OR, 1.1] for 1 SSI vs. 3.4% for control) or private insurance (3.7% [OR 1.2] for 1 SSI vs. 3.4% for control). Rates were significantly greater for patients with 2 or ≥ 3 SSIs compared with controls (Medicare: 9.0% [OR 2.8] for 2 SSIs, 9.4% [OR 3.3] for ≥ 3 SSIs vs. 3.4% for control; private insurance: 7.0% [OR 2.5] for 2 SSIs, 8.6% [OR 2.9] for ≥ 3 SSIs vs. 3.4% controls). The study design did not allow patient stratification by some known risks of operative failure including initial cuff tear size, fatty infiltration of the muscles infection, operative techniques, and voluntary decisions not to undergo revision surgery. Despite these limitations, the authors conclude that a single preoperative SSI is safe, but 2 or more injections increases the risk of surgical failure.

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