Treatment of End-Stage Hallux Rigidus and Impact of Arthrodesis versus Arthroplasty on Patient Reported Outcomes

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Disclosures

None of the authors have financial conflicts to disclose
Introduction

• Degenerative disease of the first metatarsophalangeal (MTP) joint

• Debilitated, symptomatic patients require surgery

• Joint salvage procedures
  – MTP arthrodesis
  – MTP arthroplasty
To assess for differences in patient reported outcomes (PROs) in two cohorts who underwent fusion or joint reconstruction
Methods

- Level III Retrospective Review
- Inclusion Criteria
  - Severe MTP arthritis
  - Surgical Intervention
    - July 2015-2016
    - CPT arthrodesis (28750) and arthroplasty (28293)
  - Inclusion of completed PROs
Study Measures

• Outcomes of Study
  – Preoperative and postoperative PROs (SF12-M, SF12-P, FAAM) and visual analog score

• Analysis
  – Mann-Whitney T-tests were used to compare scores following surgical intervention
  – P-value < 0.05 was considered significant
Results

• Study Population
  – Total of 18 elite athletes
  – 6 underwent arthroplasty and 12 arthrodesis
  – Mean age of 63.7 years (range 19–26)
  – Gender: 2 (12%) males and 16 (88%) females
  – Sport activity included collegiate and/or professional level
Results

• Arthrodesis patients showed greater improvement of SF12-M (arthrodesis 9 vs arthroplasty -2, p=0.05)

• Arthrodesis patients showed greater improvement of SF12-P (9 vs -16, respectively p=0.05) scores

• Arthroplasty patients were more likely to have a decrease in their SF-12 scores
Results

• FAAM scores showed no statistical difference between the two cohorts

• Mean visual analog score for pain
  • Postoperative VAS scores were worse in 33% of arthroplasty compared to 10% of arthrodesis patients
  • VAS scores showed no statistical difference between the two cohorts
Discussion

• Both procedures provide a statistically significant difference in pain with several patients having a Global Rate of Change that is “very much better”

• Fusion of the metatarsophalangeal joint results in improved pain and functional outcomes for patients with severe hallux rigidus

• A high-powered and long-term study with validated patient-reported outcomes is needed

Patients who underwent arthrodesis had better outcomes across all parameters
THANK YOU
• http://imgarcade.com/hallux-rigidus.html