AM E-POSTER 08: Long-term Outcome of the Achilles allograft Interposition for Failed Darrach Distal Ulna Resections

Category: Arthritis
Keyword: Wrist
Level 4 Evidence

- Dean G. Sotereanos, MD
- Loukia K. Papatheodorou, MD
- Benjamin G. Williams, MD

**Hypothesis:** Despite modifications, the reported failure rate of the Darrach’s procedure, distal ulnar resection, remains high. To mitigate the symptoms associated with painful convergence and impingement after distal ulna resections, a variety of alternative procedures have been developed with varying success to prevent painful impingement. The aim of this study was to evaluate the long-term outcome of Achilles tendon allograft interposition as a salvage procedure for failed distal ulna resection.

**Methods:** Twenty-nine patients with painful impingement and instability of the distal ulna following resection of the ulnar head were treated with Achilles tendon allograft interposition. There were 21 women and 8 men with a mean age of 44 years (range, 37-68 years) at the time of the surgery. The Achilles allograft is placed between the distal radius and the resected distal ulna and is secured by sutures through suture anchors to the radius and drill holes to the ulna. All patients were evaluated radiographically and clinically. Functional outcome was assessed with VAS score, measurement of grip strength and forearm rotation and subjective satisfaction parameters.

**Results:** All patients were followed for at least 12 months. The mean follow-up was 72 months (range, 12 -174 months). At the final follow-up, patient pain levels (on a visual analog scale) were significantly reduced, from 8.1 to 1.3. Comparisons between preoperative and postoperative forearm rotation and grip strength measurements showed an average 28 degrees increase in pronation, 41 degrees in supination and 72% in grip strength. Patients’ satisfaction was improved an average of 6.7 points. Postoperative radiographic evaluation demonstrated maintenance of an adequate space between the distal ulna and radius. No graft-related complications or infections were encountered.

**Summary:** Interpositional arthroplasty with am Achilles allograft is a highly effective procedure for the treatment of failed distal ulna resections preventing impingement and painful convergence of the radius on the ulna. This procedure provides a safe and reliable alternative especially for young, active patients in which a metallic implant or alternative procedure may not be appropriate.
References:

● Royalties/Honoraria received from: Wright Medical
● Consulting Fees (e.g. advisory boards) received from: Arthrex, Integra, Zimmer, AxoGen
♦ Nothing of financial value to disclose