Comparative Cost of Surgical and Nonsurgical Treatment of Acute Achilles Tendon Rupture
Elizabeth Harkin, MD, Adam Schiff, MD, Michael Pinzur, MD, Corey Schiffman, BS

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Introduction/Purpose: Treatment of acute achilles tendon rupture (AATR) is controversial. Prospective clinical trials have demonstrated similar functional and quality of life outcomes following surgical repair and nonoperative care when a functional rehabilitation protocol is utilized. Meta-analysis would suggest that the apparent benefit of surgical treatment is an earlier return to function at the cost of an increased risk for surgical wound morbidity. The goal of this investigation was to perform a cost analysis of patients in a single orthopaedic clinic comparing operative and nonoperative treatment of acute achilles tendon rupture.

Methods: After receiving IRB approval, patients whom were treated for acute Achilles tendon ruptures were retrospectively selected. A total of 13 adult patients with AATR, 6 non-operative and 7 operative, were identified in the period between June 1st 2014 and January 1st 2016. All patients participated in the same functional rehabilitation protocol. All patients had 1 year follow-up.

Results: Operative treatment resulted in 3.7 times higher cost of total care compared to nonoperative treatment ($25,239 vs $6,785). Surgeon charges were 3.3 times higher in the operative group as well. ($4,543 vs $1,395). During the total length of treatment, patients in the operative group had an average of 7.4 physician visits and produced 11.9 surgeon relative value units (RVUs) while the non-operative group had 9.2 visits (p=0.0431) and produced 9.68 surgeon RVUs (p=0.102).

Conclusion: Operative treatment of AATR had 3.7 times higher per patient treatment cost, 3.3 times higher billed surgeon charges, and slightly fewer physician visits, but with no statistically significant difference in the number of physician RVUs produced. This study questions the cost-effectiveness of operative treatment for AATR given previous long-term studies demonstrating equivalent 1-year patient outcomes.

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