

1-2020

Predictors of Functional Outcomes following Operative Treatment of Acute Achilles Tendon Ruptures

Andrew Fisher

Thomas Jefferson University, andrew.fisher@jefferson.edu

Ryan Rogero

Thomas Jefferson University

Joseph O'Neil, MD

Thomas Jefferson University, joseph.oneil@jefferson.edu

Daniel Fuchs, MD

Thomas Jefferson University, daniel.fuchs@jefferson.edu

Steven Raikin, MD

Follow this and additional works at: https://jdc.jefferson.edu/si_ctr_2022_phase1

Thomas Jefferson University

 Part of the [Orthopedics Commons](#), [Surgery Commons](#), and the [Translational Medical Research Commons](#)

[Let us know how access to this document benefits you](#)

Recommended Citation

Fisher, Andrew; Rogero, Ryan; O'Neil, MD, Joseph; Fuchs, MD, Daniel; and Raikin, MD, Steven, "Predictors of Functional Outcomes following Operative Treatment of Acute Achilles Tendon Ruptures" (2020). *Phase 1*. Paper 70.

https://jdc.jefferson.edu/si_ctr_2022_phase1/70

This Article is brought to you for free and open access by the Jefferson Digital Commons. The Jefferson Digital Commons is a service of Thomas Jefferson University's [Center for Teaching and Learning \(CTL\)](#). The Commons is a showcase for Jefferson books and journals, peer-reviewed scholarly publications, unique historical collections from the University archives, and teaching tools. The Jefferson Digital Commons allows researchers and interested readers anywhere in the world to learn about and keep up to date with Jefferson scholarship. This article has been accepted for inclusion in Phase 1 by an authorized administrator of the Jefferson Digital Commons. For more information, please contact: JeffersonDigitalCommons@jefferson.edu.

**Predictors of Functional Outcomes following
Operative Treatment of Acute Achilles Tendon Ruptures**

Andrew Fisher, BA

Ryan Rogero, BS; Joseph O'Neil, MD; Daniel Fuchs, MD; Steven Raikin, MD*

Introduction:

Previous studies involving operative management of Achilles tendon ruptures have attempted to determine if patient factors influence outcomes. No previous study has attempted to identify outcome predictors in patients exclusively undergoing surgical repair. The purpose of this study is to determine if any injury or patient variables were predictive of outcomes following operative management of Achilles ruptures.

Methods:

Patient demographics including age, sex, body mass index (BMI), comorbidities (diabetes mellitus, depression, anxiety), mechanism of injury (sports, non-sports), and date of injury were collected. Postoperative notes were reviewed to determine compliance. Patients completed the Foot & Ankle Ability Measure (FAAM)-Activities of Daily Living (ADL) and –Sports subscales, and visual analog scale (VAS) for pain. Multivariable regression analysis was performed, and regression coefficients with 95% confidence intervals and p-values were reported.

Results:

Female sex was associated with lower FAAM-Sports score (-10.11 [-19.73,-0.50]) and a lower Single Assessment Numeric Evaluation score from the FAAM-Sports subscale (-13.79 [-26.28,-1.30]; p=0.0325). History of anxiety was related to a lower FAAM-ADL score (-29.02 [-45.68, -12.36]; p=0.0009), FAAM-Sports score (-33.41 [-64.46, -2.37]; p=0.0368), and a higher VAS pain score (19.83 [4.43, 35.23]; p=0.0128). Age, BMI, a history of depression or diabetes mellitus, mechanism of injury, timing of repair, and patient compliance were not predictive.

Discussion:

Females and patients with anxiety have significantly poorer outcomes following Achilles tendon repair. Further study is indicated to determine whether these factors are also predictive of outcomes of Achilles ruptures treated non-surgically and how this may affect surgical indications in these patients.