Peroneal Tendon Repair: A Retrospective Review of Patient Reported Outcomes

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Our disclosures are in the Final AOFAS Mobile App. There is no potential conflict with this presentation.
Introduction

• Current limited data on outcomes after primary repair of peroneal tendons
  ➢ Small cohorts
  ➢ Mostly retrospective

Purpose of study
• Identify a more extensive number of patients who had a primary repair of the peroneus brevis tendon
• Evaluate clinical outcomes of repair
Hypothesis

Patients undergoing primary repair would see post-operative improvements on:

1. Foot and Ankle Ability Measure (FAAM)
2. Foot Function Index (FFI)
3. Return to previous activity level
Materials/Methods

• Retrospective chart review of a single foot and ankle specialty practice
• 201 patients had primary repair of the peroneus brevis from January 2008 to January 2012
• All patients were over the age of 18
• Acute or chronic tears that were repaired primarily with or without biologic augmentation were included
• Tears > 50% were excluded
Materials/Methods

Patients completed:

- Pain/satisfaction questionnaire
- Foot and Ankle Agility Measure (FAAM) questionnaire
- Pre/post-op Foot Function Index (FFI) questionnaire

- A 2-sided paired t-test was used to compare FFI scores between the pre-op and post-op periods
- Statistical difference was set at $p<0.05$
- A power analysis showed that 16 patients would be needed to detect a difference of 24 points on the FFI
Results

- Mean follow-up of 4.6 years, range 2.9 – 7 years
- 71 (35.3%) of the 201 patients returned the patient follow-up and FAAM questionnaire
- 52 completed the FFI questionnaire prior to surgery as well as post-op
- The average age at time of surgery was 44.3 years, and 107 (53.2%) were female
Results

Return to Sport:
- Patients reported the return to pre-injury athletic activities at a rate of 76.5%
- 62.3% returned to the same level of activity one year post-op

Patient Satisfaction:
- 56.3% of patients were very satisfied, 29.6% somewhat satisfied, 7% somewhat dissatisfied, and 1.4% very dissatisfied with their outcome
- 91.4% of patients reported they would choose to undergo the same procedure again
Results

Improved Patient Outcomes:

- Mean FAAM score was 85.2 out of 100 points
- Significant decrease in FFI score of 28.9 points (41.1 to 12.2) after primary repair

- Additional procedures performed at time of repair included:
  - Brostrum lateral ligament reconstruction (31.3%),
  - Superior peroneal retinaculum repair (29.4%)
Discussion

• With <50% cross sectional diameter involvement, peroneal brevis tears are amenable to repair
  ➢ With good clinical outcomes
  ➢ Predictable return to pre-injury athletic activity

• This is the largest retrospective study on primary peroneal repair to date.

• Weaknesses of study include retrospective design, recall bias and low questionnaire return rate.
Conclusion

- Primary repair of peroneal brevis tendons provide consistent statistical improvement in clinical outcomes in the majority of patients, as measured by validated scoring system, the FFI.

- FAAM scores demonstrate good function compared to historical controls.

- The majority of patients are able to return to pre-injury athletic activities at a similar level of intensity.
References