Evidence in focus

Publication summary

Sorensen MD, et al. *J Foot Ankle Surg* (2011)*

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TOPAZ◇ Microdebrider safely alleviates recalcitrant heel pain in plantar fasciosis

The minimally invasive technique "burns no bridges" by sparing the overall integrity of the plantar fascia

Study design

- A prospective single-surgeon case series study in which 21 patients (mean age, 48.4 years) with recalcitrant proximal plantar fasciosis received TOPAZ microtenotomy and were followed for a mean of 12.9 weeks after treatment
- Patients were symptomatic for at least six months and had undergone extensive and failed prior conservative therapy

Key results

- Patients' AOFAS Ankle-Hindfoot Scale for function showed significant improvement from baseline to final follow up (Figure)
- The majority of patients (80.9%) achieved satisfactory pain control within four months
- Fourteen patients (66.7%) rated their outcome as excellent, four (19.1%) as good, one (4.8%) as fair, and two (9.5%) as poor
- No complications occurred in 20 patients (95.2%); one patient had a case of persistent flexor hallucis longus tendonitis

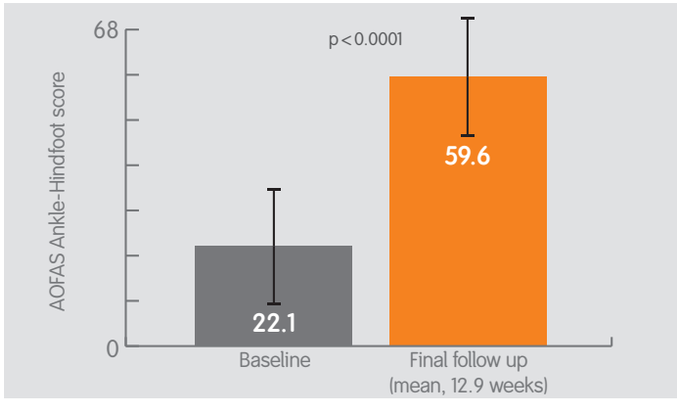

Figure. Improvement in function from baseline to final follow up (out of possible 68 points)

Conclusion

Patients treated with TOPAZ microtenotomy – a minimally invasive procedure that spares the plantar fascia – experienced significant improvement in function and high levels of pain relief and satisfaction. The beneficial therapeutic effect of TOPAZ was great enough to be identified as significant, even with 21 patients. The authors noted that no bridges are burned with this procedure, as the overall structural integrity of the plantar fascia is spared despite numerous microperforations.

Considerations

- Study sample size was relatively small, though large enough to detect statistically significant differences; the mean 12.9 week follow up was also relatively short, compared with the 12-month durations more typical for clinical studies

Study citation

*Sorensen MD, Hyer CF, Philbin TM. Percutaneous bipolar radiofrequency microdebridement for recalcitrant proximal plantar fasciosis. *J Foot Ankle Surg.* 2011;50:165-170.

Abbreviations

AOFAS: American Orthopaedic Foot & Ankle Society

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