Neuropathic Plantar Forefoot Ulcers Treated with Tendon Lengthenings

Reference:

Scientific Literature Reviews

Resident: Brad W. Jones, DPM  
Residency Program: Jewish Hospital and Saint Mary’s HealthCare Podiatric Residency Program

Podiatric Relevance:  
This study shows how surgery can be an effective treatment for a very common podiatric problem that is often handled with conservative measures.

Methods:  
This is a retrospective study of 20 neuropathic ulcers in 17 patients treated over an 8 1/2 year period for Wagner’s grades 1, 2, and 3 metatarsal head ulcers. All patients were given Vulpius gastrocnemius recessions. Patients with ulcers sub-first metatarsals were also given Z-plasty lengthening of peroneus longus tendons, and those with ulcers under the fifth metatarsals were also given posterior tibial tendon lengthenings.

Results:  
Follow up was 22 to 81 months, with an average of 45 months. Of the 17 patients, one was lost to follow-up and one patient (who did not have palpable pedal pulses preoperatively and could not be corrected by vascular surgery) went on to have an amputation. The remaining 15 patients healed their ulcers within two months after surgery. All incisions healed primarily without infections. Three ulcers recurred and were treated with repeat tendon lengthening and healed again. There were no transfer metatarsal head lesions.

Conclusions:  
This study demonstrates the usefulness of tendon lengthening procedures to offload metatarsal heads.