

**Treatment of “plantar fasciitis”/Plantar Heel Pain Syndrome with botulinum toxin — A novel injection paradigm pilot study, Radovic, *The Foot*, Volume 45, December 2020**

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**Level of Evidence:** 5

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Heel pain is often described as plantar fasciitis, however, “Plantar Heel Pain” is a term preferred. Causes of plantar fasciitis are multifactorial and can include inflammation, degenerative and neuropathic conditions. Conservative treatments range from physical therapy, orthotics, PRP, EPAT/ESWT, prolotherapy, dry needling, laser and allograft injections. Surgical procedures include coblation, radiofrequency debridement, decompression and plantar fascial release. Surgical treatment complications include infection, delayed healing, nerve injury, recurrence of pain and medial / lateral column collapse. This article focuses on the use of Botulinum toxin (also known as “Botox”) as a method to treat plantar heel pain.

Four total patients were given injections of 100 units of Botox in 0.9% saline solution (off-label), injected at the proximal Abductor Hallucis x 1 and Quadratus Plantae x 1 muscle bellies (2 total injections). All patients had no comorbidities, with medial heel pain present for at least 3 months. The patients had varied diagnosis of either plantar fasciitis, Tunnel Syndrome or Baxter’s Neuritis. The patients also previously attempted (but had minimal to no improvement) after at least 4 of the following treatments: NSAID/ice; stretching exercises; physical therapy; corticosteroid injection; night splint; change in shoe gear to more supporting shoes; and orthotics. The patients were advised to maintain their normal daily activities as tolerated - shoe inserts, custom orthotics and stretching exercises - after injection therapy. Patients came back for a follow up and pain assessment at weeks 1, 3, 6, 12 and 26 s/p injection therapy. VAS (visual analog scale), FAAM (Foot and Ankle Ability Measure) and PFPS (Plantar Fasciitis Pain/Disability Scale) was utilized for pain measurements.

Final results revealed that the Botox injection showed a significant improvement of pain reduction and patient function for Plantar Heel Pain with improvement in all 3 pain measurements. Although the sample study of 4 patients shows promising efficacy in the use of Botox for the treatment of Plantar Heel Pain, due to the small sample size, more studies need to be done to truly evaluate this modality’s efficacy.

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