TACSM Abstract – Clinical Teaching

A Clinical Teaching of Plantar Fasciitis

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ABSTRACT

CLINICAL PRESENTATION & EXAM: The patient presents with pain localized in the plantar heel on the medial side of the foot. Often, there is a gradual onset of pain, but it can become very intense. The patient notices pain when walking either after first getting up in the morning or after a long period of rest. The pain can subside after walking for a short period of time but may return after a long period of any weight-bearing activities. An athlete with plantar fasciitis might have pain that subsides during the warm-up but can return after a longer duration of activity or intense training. **ANATOMY & PATHOLOGY**: The pain caused by plantar fasciitis is located where the plantar fascia attaches to the anterior calcaneus. The plantar fascia is dense connective tissue that originates at the calcaneal tuberosity and extends to attach to the proximal phalanges of the foot. In the past, plantar fasciitis was thought to be an inflammatory process, but more recent findings suggest that it is a more chronic degenerative process by which small tears occur in the fascia as a result of repetitive stress and tension. Plantar fasciitis can also be marked with a thickening of the plantar fascia. **DIAGNOSTIC TESTING & CONSIDERATIONS**: Diagnosing plantar fasciitis usually involves palpation and passive movements. The patient will experience pain with the palpation of the anterior calcaneus on the plantar medial side of the heel and with passive ankle and toe dorsiflexion (Windlass test). A musculoskeletal ultrasonography can be performed to evaluate the thickness of the plantar fascia to confirm the diagnosis. If the patient has suffered from months of persistent heel pain while undergoing treatment or has other unusual heel pain, then imaging may be done for a differential diagnosis. For example, X-rays and bone scans can be used to rule out fractures, bone tumors, or bone spurs. **TREATMENT & RETURN TO ACTIVITY** The majority of patients can be treated successfully with nonsurgical methods. Treatment can include rest, activity modification, medications, physical therapy, or instrumental therapy. First, it is a good idea for very active people to limit the amount of activity they participate in to allow their foot to rest and reduce pain. Medications that can be used include corticosteroid injections or non-steroidal anti-inflammatory drugs. Physical therapy for plantar fasciitis includes soft tissue or ice massages, manipulative treatments such as the counterstrain technique, stretching, and the use of orthotic devices to improve pain. Physical therapy can also include dry-cupping, dry-needling, and kinesiotape. Instrumental treatment for plantar fasciitis includes laser therapy, iontophoresis, ultrasound, cryoultrasound, and low-dose radiotherapy. There have been other recent strategies, such as blood platelet-rich plasma injections and extracorporeal shock wave therapy, that patients have benefitted from. Usually, after 6-12 months of persistent pain that does not subside with nonsurgical treatment, a partial or complete plantar fasciotomy may be performed.