

TACSM Abstract - Clinical Teaching

Plantar Fasciitis

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ABSTRACT

CLINICAL PRESENTATION & EXAM: During the initial meeting with the patient, they will describe an intense pain they have been experiencing in their calcaneal region. This type of pain is prevalent as an overload injury, excessive foot pronation during walking or exercise, or obesity. Other risks for plantar fasciitis would be prolonged running periods, high arch, leg length discrepancy, or tightness of the Achilles tendon. Usually the patient states experience of a sharp pain in the mornings when they first get up, after standing for a long time, or after sitting down and resting for a period of time. Upon hearing this, the examiner should palpate the medial plantar calcaneal region to verify the discomfort in that area. They can also be tested by passive ankle/first toe dorsiflexion. This will result in discomfort in the proximal plantar fascia. **ANATOMY & PATHOLOGY:** Plantar fasciitis involves the inflammation, mild thickening, and edema buildup of the plantar fascia. This is a fibrous aponeurosis deep in the fatty subcutaneous tissue of the plantar aspect of the foot, spanning from the calcaneal tuberosity to the proximal phalanges. It runs along the bottom of your foot, connecting your heel to your toes. This fascia helps support the medial longitudinal arch of the foot and also acts as a shock absorber when running, walking, or other types of exercise. **DIAGNOSTIC TESTING & CONSIDERATIONS:** Plantar fasciitis can be detected through patient history and physical examination. An X-Ray or an MRI can also be ordered to look closer at the fascia, making sure there isn't a bigger issue involved. In an X-Ray the diagnosis can be confirmed through seeing bone spurs in the calcaneal region. Using a musculoskeletal ultrasound has been proven to be very useful in confirming the diagnosis. **TREATMENT & RETURN TO ACTIVITY:** Treatment is primarily nonoperative. Methods of treatment include rest, activity modification, physical therapy, stretching exercises, nonsteroidal anti-inflammatory drugs, splinting, or prescription of foot orthoses to improve foot biomechanics. Other forms of treatment include a corticosteroid injection to the inflamed fascia, or Extracorporeal Shock Wave Therapy (ESWT). This system uses an electromagnetic coil and an opposing metal membrane to produce a magnetic field that compresses the surrounding fluid to generate a shock wave. Both moderate and high intensity ESWT are effective in treatment. A new up and coming treatment that is proven to be very effective is dry needling. This minimally invasive procedure will cause some minor bleeding in the tissues which promotes blood flow in that area, breaking up scar tissue. It will also reduce inflammation and help keep the fascia from rupturing.