

Accelerated Rehabilitation Protocol on Plantar Fasciitis

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ABSTRACT

CASE HISTORY: The patient is a 21-year-old collegiate soccer player who suffered from acute mild to severe plantar fasciitis on the left foot for 12 months. Early onset symptoms began with pain in the morning and after training sessions in the medial and calcaneal region. **PHYSICAL EXAM:** The plantar fasciitis examination identified pain in the medial plantar calcaneal region with palpation, hyper-pronation of the left foot, slightly abnormal gait, numbness radiating on the peroneal nerve to outer left knee, and discomfort in the proximal plantar fascia with passive ankle dorsiflexion. She had poor range of motion (ROM) in dorsiflexion with present pain. **DIFFERENTIAL DIAGNOSIS:** Heel spur, stress fracture, tendonitis, arthritis, nerve irritation, tarsal tunnel, pes planus. **TEST AND RESULTS:** Patient had a negative X-ray for bone fractures. A magnetic resonance imaging (MRI) revealed a hairline fracture in the navicular bone with present plantar fasciitis. **FINAL DIAGNOSIS:** Navicular hairline fracture and moderate plantar fasciitis on the medial calcaneal tubercle. **DISCUSSION:** Approximately 2 million people in the United States are treated yearly for plantar fasciitis. Depending on the severity of pain the surgeon will advise surgery or not. Plantar fascia release surgery (fasciotomy) has a 95% success rate and rehabilitation is imperative as it seen to result in a rapid recovery. Average recovery time is between 6 to 10 weeks. Accelerated rehabilitation protocols may reduce recovery time to 4-6 weeks. **OUTCOME CASE STUDY:** The patient underwent a fasciotomy that involved cutting part of the plantar fascia ligament to release tension and inflammation on the ligament. Therapy began with wearing a boot for 2 weeks to avoid forceful impact on the fascia and her at home rehabilitation involved ROM for the fascia such as ABC'S, dorsiflexion and, plantar-flexion. Week 3 she began using a theraband to strengthen the fascia, body weighted exercises, and massage therapy on the gastrocnemius/soleus. At week 4, the patient was almost fully recovered without any complications and she began light weight lifting and jogging without any pain, just minor discomfort on the incision. Graston technique was used every other day to break down scar tissue on the incision that made a huge impact on her recovery. Mind to body exercises that involved understanding balance, control, and sensation of the foot were conducted establishing patient's confidence for return to play without the psychological effects of the injury. **RETURN TO ACTIVITY AND FURTHER FOLLOW UP:** After a rapid 6-week recovery, she was cleared by the doctor to start playing again. The patient had a great outcome minus any psychological or physiological issues due to constant support from her athletic trainers and her adherence to a physical therapy program. This case demonstrates the importance of an interdisciplinary approach for accelerated post-operative outcomes.