

PHYSICAL THERAPY INTERVENTION FOR A PATIENT WITH BILATERAL ACHILLES TENDINOPATHY FOLLOWING PERIODS OF IMMOBILIZATION: A CASE REPORT

AMHageman, MLWeddle (research advisor)

St Catherine University

Information regarding the patient's injury and physician visits was obtained from medical chart review in a manner that complied with the Health Insurance Portability and Accountability Act requirements for disclosure of protected health information. A case report consent form was explained verbally to the patient and he agreed to participate by signing the statement of consent.

Disclosure of source of funding for this project: *None*

ABSTRACT (Limited to 300 Words):

BACKGROUND AND PURPOSE: Achilles tendinopathy is a chronic disorder resulting from stressing the tendon beyond its physiological threshold. Eccentric calf strengthening is a common intervention used to treat and prevent Achilles tendinopathy; however, the standard eccentric exercise model assumes unilateral involvement. The purpose of this case report is to describe the physical therapy intervention used to treat a patient with bilateral Achilles tendinopathy following two six-week periods of immobilization.

CASE DESCRIPTION: The patient was a 30 year old National Guard male soldier with a history of bilateral Achilles tendinopathy. The patient had difficulty participating in high-impact activities, secondary to pain. Previous physical therapy treatment attempts had failed, and the orthopedic physician recommended immobilization coupled with physical therapy intervention before considering surgery. Physical therapy intervention emphasized concentric and eccentric strength training and neuromuscular re-education. When the immobilization phases were complete, exercise progressed to prepare the patient for his demanding duties as a National Guard soldier.

OUTCOMES: The patient reported decreased pain and increased function in daily living and sporting activity as demonstrated by the Victorian Institute of Sport Assessment-Achilles (VISA-A) questionnaire. The patient's VISA-A scores improved from 25/100 on the day of initial evaluation to 76/100 after 18 weeks of physical therapy intervention. The patient also demonstrated an improvement of 4 points on the Patient Specific Functional Scale (PSFS) in 18 weeks, exceeding the minimal detectable change to demonstrate statistical improvement in running two miles.

CONCLUSIONS: The standard eccentric calf strengthening model is not applicable for a patient with bilateral Achilles tendinopathy or immobilization. Furthermore, current research challenges the effectiveness of eccentric exercise and recommends including sport-specific functional strengthening and endurance programs in conjunction with eccentric exercise, instead of focusing on eccentric exercise alone. More research is needed to establish an exercise protocol specifically for patients with bilateral Achilles tendinopathy.