

Clinical Research Project

The Effectiveness of Deep Transverse Friction Massage vs. Eccentric Exercise in Sub-acute Achilles Tendonitis: A Pilot Study

The use of eccentric exercise in the treatment of Achilles tendonitis type symptoms has been well documented. Developed by James Cyriax, deep transverse friction massage (DTFM) has been used to treat various forms of tendonitis for generations. However, despite the extensive use of DTFM in the treatment of tendonitis, little is known regarding its effectiveness. DTFM has been proposed to have a local pain diminishing effects ("Gate control theory") as well as an effect on connective tissue fibril alignment. In addition, DTFM has been said to increase vasodilatation, which can enhance the removal of potential harmful chemical irritants found in tendonitis. **Hypothesis:** We hypothesize that eccentric exercise will produce the most reductions in Numeric pain scale ratings, report a greater score in the VISA A Questionnaire, and show greater increases in strength than DTFM than a simple stretching and ice application. **Purpose:** This study is designed to determine the effectiveness of DTFM when compared to an eccentric based exercise regimen and a standardized regimen of stretching/ice/balance and concentric exercises in treating sub-acute Achilles Tendonitis. **Subjects:** Twelve individuals between the ages of 18 and 70 years, with a medical diagnosis of Achilles Tendonitis will be used. **Methods:** Each subject in this single-center treatment based research project will undergo two-three week bouts of each intervention group in a randomized order: a) eccentric exercise, b) stretching/ice/concentric and balance exercise, and c) deep transverse friction massage. All groups shall undergo a standardized stretching/ice/concentric and balance regimen as well the intervention. At the inception of the study and after every two-three week interval of treatment, subjects will be re-evaluated on their numeric pain scale, ankle muscle strength, and the VISA Questionnaire. Data will be collected and analyzed utilizing a one-way analysis of variance for repeated measures.

Physician Instructions

1. Identify patient with sub-acute non-insertional Achilles Tendinopathy.
2. Patients must be 17-80 years old and not be involved in a worker's compensation claim.
3. Inform patient of study and determine their interest in being a participant.
4. Please write out script to cover 6-8 weeks of therapy, 2x a week.
5. Patient should contact Accelerated Oak Park: 1000 Lake Street Ste. 201, Oak Park, IL 60301. **Phone # 708-763-0564** Fax #708-763-8739

Thank you for helping with our quest to provide evidenced based physical therapy in conjunction with optimal patient care!

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