

REDUCTION OF ACHILLES TENDON PAIN AFTER USING CREATINE MONOHYDRATE: A CASE STUDY

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HISTORY: A 54-year-old, right hand dominant, Caucasian male police officer presented with bilateral Achilles tendon pain. The patient underwent surgical debridement of bilateral Achilles tendons with a poor outcome. The patient was initially advised that he would be able to run within 6 weeks. However, after 8 weeks, the patient was unable to ambulate. Three years later, the patient was still unable to run. The patient was placed on light desk duty, due to his inability to meet the physical demands of a patrol.

PHYSICAL EXAMINATION: Examination revealed well-healed post-surgical scars. Multiple fibrotic areas of about 1cm in diameter, with secondary trigger points in the soleus and gastrocnemius were noted bilaterally. Active ranges of motion revealed a mild limitation of dorsiflexion. All other ranges of motion were normal. MRI revealed multiple small tears with edema of the bilateral Achilles tendon and post-operative fibrosis.

DIAGNOSIS: 1. Post-operative fibrosis, Achilles tendon 2. Achilles tendonitis with small tears and edema

TREATMENT: The patient received soft tissue mobilization twice per week with fair outcome. The patient began taking 2-3 grams of creatine monohydrate (CM) daily in divided doses in a self-directed protocol. The patient noted improvement within 30 days. The patient reported decreased Achilles edema when using CM. The improvement remained constant during use and would begin to dissipate approximately 7 days after cessation. The patient noted Achilles edema returning when the beneficial effect subsided. The patient was given the Ankle and Foot Function Index (AFFI) and visual analog scale (VAS) to comprehensively interpret the pre and post treatment results.

RESULTS: The pre CM AFFI score was 54/90 or 0.60, and the post CM score was 24/90 or 0.27. The VAS of the worst pain was 9.5/10 pre-CM and 9.0/10 post-CM. The VAS of the best pain was 7/10 pre- CM and 4.5/10 post-CM.

CONCLUSION: The CM appears to have a beneficial effect on the chronic Achilles tendonitis in this case. This patient repeated this trial many times with similar effects each time. The patient noted the results did vary however. Over the course of his care, the patient has received soft tissue mobilization, ultrasound, and performed stretching and progressive resistance training. These factors did not change substantially at the time of the ingestion of the CM. This case suggests that research is necessary to further

investigate the use of creatine monohydrate in patients with tendon injury. These authors believe this correlation has not been previously reported.

Poster presentation
2007 Chiropractic Sports Sciences Symposium
Minneapolis, MN