

Preliminary results of Extracorporeal Shock Wave Therapy in patients with Achilles tendinopathies

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Device and producing company:

Duolith SD 1, Storz Medical

Introduction:

Chronic Achilles tendinopathy is a painful condition often showing unsatisfactory results with conservative treatments. The aim of this study was to evaluate the effect of extracorporeal shock wave therapy (ESWT) in chronic Achilles tendon disorders.

Methods:

Sixteen subjects participated in this study, aged between 19 and 35 years (mean age: 27.8 years). All participants underwent clinical and instrumental diagnosis (X-rays and ultrasonography). They had been previously treated with physical therapy, local injections, and other conservative procedures for at least 6 months. Focused and Radial ESWT (Storz Medical, Duolith SD1) were assigned to 3 treatments, 1 per week for 4 weeks. In each session, 1000 pulses of 0.1 to 0.15 mJ/mm² and 3000 pulses of 1.4 to 2.1 bar, depending on the participant's pain tolerance, were administered respectively. The control was the contralateral limb. Pain was measured on a visual analogue scale (VAS). The functional ability was evaluated using one leg standing test (OLST) and single limb hopping course (SLHC) on each subject before treatment, during treatment and 4 weeks after the treatment period.

Results:

The treated ankles displayed improvement in all of the parameters (VAS, OLST, SLHC) analyzed during the treatment and at 4 weeks. Four weeks after extracorporeal shockwave therapy, pain measured on a visual analogue scale (VAS) decreased significantly in ankles with chronic Achilles tendon disorders. We found similar results in OLST and SLHC for both the treated and control ankle comparisons after treatment.

Conclusion:

Extracorporeal shock-wave therapy appears to be a supplement for the treatment of chronic Achilles tendinopathy.