

Evaluation with Ultrasound and Color Doppler of the Results of Extracorporeal Shock Wave Therapy for the Control of Hyper Vascular Areas in Tendinosis (Preliminary Study)

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There is considerable controversy regarding the origin of insertional pain in chronic tendinosis. Even though tendon biopsies having shown an absence of inflammatory cell infiltration. Recent studies indicate that this pain is closely related to the presence of hypervascularization of the tendon.

We studied patients with chronic tendinosis . Tendon hypervascularization was rated mild, moderate, or intense based colour Doppler ultrasound findings. The effect on pain during Achilles tendon loading activity was evaluated using a visual analogue scale (VAS). In this study 14 Achilles tendons in 10 patients with a long duration of pain-symptoms from the mid-portion of the Achilles tendon were included in the investigation. At follow-up, all patients answered a questionnaire assessing their satisfaction with the result of the treatment, the level of present tendon loading activity, and tendon related symptoms.

Clinical and ultrasound follow-up three to six weeks after three treatment by shock wave sonographically-guided , we compare if result indicate an effect on the neovessels similar Eccentric training or US- and CT-guided injections of the sclerosing agent Polidocanol.

Neovascularisation was found inside and outside the ventral side of the region with structural tendon changes in all tendons with chronic painful mid-portion Achilles-tendinosis. Before treatment, the mean VAS-score, evaluating the amount of pain during Achilles tendon loading activity, was 70. At the six weeks follow up, 8/10 patients were satisfied with the treatment and mean VAS score had decreased to 10, and in the majority of the tendons all neovessels had decreased. In the 2/10 patients who were not satisfied with the treatment (remaining tendon pain), multiple neovessels remained.

This pilot study indicates an effect of ESWT on the neovessels well correlated with reduced pain but further randomised controlled trials are needed to prove this findings.