Knee Surg Sports Traumatol Arthrosc. 2014 Dec 2. [Epub ahead of print]

Ultrasound-guided dry needling with percutaneous paratenon decompression for chronic Achilles tendinopathy.

Yeo A(1), Kendall N, Jayaraman S.

Author information:
(1)St George's Hospital, Blackshaw Road, Tooting, London, SW17 0QT, UK, andreayeo@doctors.org.uk.

PURPOSE: Chronic Achilles tendinopathy is a common overuse injury. There are several modalities of treatment, reflecting difficulties in management. In particular, due to the well-recognised surgical morbidity, treatment has steered towards less invasive routes. Previous studies have targeted pathology either inside or outside the tendon in isolation with varying results. This study aimed to target both pathological sites by combining dry needling with percutaneous hydrostatic decompression as a novel treatment.
METHODS: Twenty-one patients with 26 chronic, non-insertional Achilles tendinopathy were prospectively enrolled. Ultrasound-guided dry needling of neovascular areas and small-volume hydrostatic paratenon decompression was performed 6-weekly. Sonographic assessment of tendon thickness and neovascularity was undertaken. Following treatment, a standardised physiotherapy regime was adopted. Visual analogue scores (VAS) were used as the primary outcome measure. Telephonic interviews were carried out 12 and 24 months post-treatment.
RESULTS: Twenty-four tendons (in 19 patients) were successfully treated. The mean treatment session was 2. There was no significant change in neovascularity or tendon thickness. Therapeutic intervention led to a significant improvement in VAS at rest (42.4 ± 24.4 vs. 18.4 ± 26.0, $p = 0.0005$) and during activity (72.8 ± 16.0 vs. 33.7 ± 23.2, $p < 0.0001$). At 12 and 24 months, >75 % of patients were highly satisfied with their outcome with nearly half reporting complete resolution of their symptoms. >85 % were also able to return to their sporting interests.
CONCLUSION: Combined therapy of dry needling with percutaneous hydrostatic paratenon decompression under ultrasound guidance is a well-tolerated procedure with good short- and long-term pain and functional outcomes.
LEVEL OF EVIDENCE: Prospective case series, Level IV.

PMID: 25448138 [PubMed - as supplied by publisher]