

Efficacy of Extracorporeal Shockwave Therapy (ESWT) in the Treatment of Tendinopathies and Enthesiopathies

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ESWT has been increasingly used to treat tendinopathies and enthesiopathies. A retrospective review of patients who underwent ESWT at our centre was conducted to establish the efficacy and safety of this treatment modality.

The records of patients treated with ESWT between April 2004 and October 2005 were reviewed. All had lesions that were documented on ultrasound sonography. Each course of treatment comprised two sessions performed one week apart. At each session, 2,000 focal shock wave pulses were administered under ultrasound guidance at increasing energy flux densities (between 0.03 mJ/mm² and 0.28 mJ/mm²). No sedation or anaesthetic agents were used, and all patients received a two-week course of non-steroidal anti-inflammatories. Pain was assessed using the Visual Analogue Scale (VAS).

A total of 639 treatments were performed on 264 sites. The patients were predominantly male (62.1%) with a mean age of 42 years (range 13-73 years). Plantar fasciitis (47.7%) was the most common indication, followed by medial/lateral epicondylitis of the elbow (17.8%), patellar tendinopathy (11.4%), supraspinatus tendinopathy (9.8%) and Achilles enthesiopathy (9.1%). Of the treatments, 518 (81.1%) were first courses, 98 (15.3%) were second courses, and 23 (3.6%) were third courses. For all sites, the pre-treatment mean VAS score was 5.4. This was significantly reduced after one session (3.8) and at the two-week (3.0) and three-month (2.5) follow-up. Proximal plantar fascia swelling was also significantly reduced (5.7 mm pre-treatment vs. 4.6 mm after one course). No adverse events were reported.

ESWT is an effective and safe treatment modality for chronic and painful lesions at bone-tendon junctions.