

Shock wave treatment for plantar fasciopathy: a meta-analysis of the current literature

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Introduction:

The last six years have been associated with an increasing number of Level 1 studies (blinded, placebo-controlled) for recalcitrant plantar fasciopathy. These types of studies are significant to the evaluation of the effectiveness and safety of extracorporeal shock waves for treatment. Three devices have been approved by the Food and Drug Administration specifically for plantar fasciopathy.

Methods:

A search was made using several databases (principally PubMed) matching shock waves and plantar fasciopathy. A more generalized search was made utilizing the term "shock waves". We then analyzed the published studies for level of evidence, type of device, and outcomes.

Results:

Sixty-one articles fit the combined criteria of plantar fasciopathy or plantar fasciitis treated by shock waves. Four different devices were used (the fourth was approved for tennis elbow rather than plantar fasciitis). The shock waves were administered electrohydraulically or electromagnetically. Eleven studies fit a level one study with adequate blinding (single or double) and placebo controls. Ten of these studies, involving over 1000 treated patients and a similar number of placebo patients reported a positive effect from the treatments. One study, which has caused some controversy concerning methodology, reported no effect from shock waves compared to the placebo group.

Conclusion:

Evidence-based medicine with these aforementioned studies supports the efficacy and safety of extracorporeal shock waves for the treatment of plantar fasciopathy. Patients have the right to have this methodology offered to them as a compensable treatment alternative when other conservative therapies have failed. The method is superior to invasive surgery, allowing rapid return to activities of daily living and work.