

The effect of oral analgesics on pain tolerance during Extracorporeal Shock Wave Therapy (ESWT) for Chronic Plantar Fasciitis (CPF): A double-blind randomized placebo-controlled trial.

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Device and producing company:

Orthima - Direx

Introduction:

High-energy shockwave impulses appear to be more effective in the treatment of CPF than low-energy shockwaves. However, most patients report pain or discomfort during therapy application. A non-invasive and a low-cost analgesic therapy could be used as an alternative approach. The aim of this study was to evaluate the pain-alleviating effect of oral analgesics during application of ESWT for CPF.

Methods:

A prospective study with 60 patients divided equally into four groups of fifteen each: A (PLACEBO); B (TRAMADOL 50 mg); C (ACETAMINOFEN 750 mg) and D (without medication). The first dose was administered 6 hours before and the second dose 30 minutes before the ESWT session. We used the Visual Analogue Scale (VAS) applied on the first clinical evaluation and after 500 impulses of ESWT. The equipment utilized was an electro-hydraulic generator. The applications consisted of 200 impulses of 0.08mJ/mm² followed by 1500 impulses of 0.35 mJ/mm².

Results:

No significant difference existed between the groups at baseline. The preliminary results demonstrated no significant decrease of VAS scores during ESWT in groups A (p=0.84), B (p=0.38) and C (p=0.79). More pronounced decreases in VAS scores were observed in group B (6.72±1.61 vs. 6.02±1.63, p=0.38). Differently, no significant increase of VAS score during the application was observed in group D (6.74±2.20 vs. 7.52±1.78, p=0.35).

Discussion:

The increases of pain during ESWT session observed in the group without medication justify the search for a low-cost and non-invasive analgesic therapy.

Conclusion: The preliminary results suggest an analgesic effect of Tramadol. A larger patient population will be helpful to make a determination.