

Extracorporeal Shockwave Therapy for the Treatment of Plantar Fasciitis - Comparative Study of Focused ESWT Versus Combined Focused and Radial ESWT

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The purpose of the study is the evaluation of results, in the short and medium term, of focused ESWT versus combined focused and radial ESWT for the treatment of chronic heel pain due to plantar Fasciitis.

Focused ESWT was applied in 3 sessions once a week. Patients complained of pain between the 2nd and 3rd sessions. The third session was then replaced by 2 sessions of radial ESWT once a week, in an attempt to reduce the pain after the 2nd session of focused ESWT. This study aims to present the results of this second method versus the 3 weekly sessions of focused only ESWT.

Since August 2005 a prospective comparative study was conducted on 142 heels of patients with a minimum of 6 months of pain. All patients had been treated with at least 2 methods of conservative treatment. The average age was 55. All patients were sedated for each session. No local anaesthesia was applied. 2 groups were created for the comparison of results. Group 1 consisted of 72 patients that were treated with 3 sessions of focused ESWT (once a week for 3 weeks). Each patient was treated with 2000 pulses with an energy flux density of no more than 0.15mJ/mm² during each session. Ultrasound was used to measure thickness of the plantar fascia before each session. Group 2 consisted of 70 patients that were treated with combined sessions of 2 focal (once a week for 2 weeks) and 2 radial (once a week for 2 weeks) ESWT. The focused sessions were conducted in an identical manner to those of the focused only patients. The 2 subsequent sessions (once a week for 2 weeks) of radial ESWT were performed with 3500 shocks at a frequency of no more than 8Hz and a pressure of 3 to 3.5 Bars.

Patient satisfaction, pain caused by manual pressure, pain whilst walking, were scored with the Visual Analogue Scale - VAS.

Both methods used in the comparative study produced the same overall results. However, Group 2 experienced faster improvement with less pain during the recovery period than Group 1.