

RADIAL SHOCK WAVE THERAPY FOR CHRONIC HEEL PAIN

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Purpose of the study:

Evaluation of the effect of Unfocused or Radial Shock Wave Therapy (RSWT) on chronic plantar heel pain.

Materials and Methods:

Since July 2002, a prospective study was conducted including 74 heels in 63 patients with a minimum of 6 months of pain. All patients had a definite indication for open surgery after at least two unsuccessful different conservative treatment approaches. Informed consent of the patients was gained. There were 24 females and 39 males with an average age of 50 (17-79). History and physical examination were recorded in detail. The patients were asked to determine the effect of RSWT by a visual analogue scale (VAS) for walking, at rest and at night. The walking distance, onset of pain and return to daily activities or sports were registered as well as objective findings.

All patients received 2000 shockwaves at a frequency of 5Hz and a work pressure of 2, 5 Bars, without local anaesthesia, in 3 weekly sessions. After each session, patients were given non-narcotic analgesic and an ice pack. All the patients tolerated the treatment well, and the majority were able to retake daily activities again. There were neither systemic nor local complications after treatment. No patient showed any kind of deterioration.

Two independent orthopaedic surgeons did the follow up. At 12-month follow-up, and using the VAS a reference, the pressure-elicited pain decreased from 6,9 to 2 ($p < 0,05$), the pain in sports decreased from 6,8 to 2,1 ($p < 0,05$). Night complaints improved from a VAS score of 2,6 to 1,4 ($p < 0,05$). Pain at daily activities also improved from 4,8 to 1,8 ($p < 0,05$). Before the RSWT, only 17 patients were pain-free after walking more than 1000 meters. After the treatment, 38 patients were able to walk more than 1000 m without pain.

Conclusions:

The Unfocused or Radial Shock Wave Therapy (RSWT) is an attractive non-invasive and highly economical alternative for open surgery. The cost of the device is far cheaper than focused extracorporeal machines (ESWT). The results are very satisfactory and reduce the need for surgery in a high percentage of patients.