

The Effect of Radial Extracorporeal Shockwave Therapy on Painful Heel

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PURPOSE OF THE STUDY:

The aim of the study was to evaluate the effect and side effects of radial extracorporeal shock wave therapy in treatment of unsuccessful conservatively treated chronic painful heel.

MATERIALS AND METHODS:

In a prospective study 90 patients get radial extracorporeal shock wave therapy (rESWT). Three rESWT settings were done, 2000 shock waves were given each session. No patient needed local anesthesia or analgesia. The application pressure was 4 bar and the frequency 8 Hz, with a mean energy flux density of 0.18 mJ/mm². The primary criteria to evaluate the effects were subjective outcome, scored on the visual analogue scale and by using the Roles and Maudsley score. The radial shock wave therapy was indicated, after all patients were treated unsuccessfully with antiphlogistics, physiotherapy, analgetics and other non operative methods. The statistic evaluations and data monitoring were done independently from applicator. The mean follow up interval was 3 months.

RESULTS:

The therapy was well tolerated by the patients. 3 month after last treatment there was a decrease in pain sensation of a reduction of 5.6 points on the visual analogue scale, compared to baseline evaluation ($p < 0.05$). By using the Roles and Maudsley score 79% were scored as good or excellent after treatment. No severe side effects caused by shock waves were observed, but some showed transient small petchial bleedings and swelling.

CONCLUSION:

The radial shock wave therapy is an effective and well tolerated treatment of the chronic plantar heel pain in patients with unsuccessful conservativ treatment. Because of the nearby side effect free therapy, the rESWT should be indicated before operation will be done.