

The Application of Piezoelectrically Generated Shock Waves at a 6 Hz Frequency for the Treatment of Plantar Fasciitis

Author:

M.C.Ottone, S.R.Ferraro

Institution:

ASL 20 - Servizio Assistenza Sanitaria Territoriale Tortona (AL) Italy

ASL 20 - Chief of Servizio Assistenza Sanitaria Territoriale Tortona (AL) Italy

Plantar fasciitis is a common clinical problem and a common cause of heel pain. The success rates of conservative treatment are often unsatisfactory. The aim of this study is to demonstrate the efficacy of treatment with piezoelectrically generated shock waves at a 6 Hz frequency.

We studied a group of 60 patients with painful heel. Each patient received 4 applications of 2,000 shock waves (energy density = 0.20 mJ/mm², frequency = 6 Hz), at intervals of 48-72 hours.

After a follow up of six months, pain was measured on a Visual Analogue Scale (VAS) and on the basis of the patients' satisfaction according to a four-step score (excellent, good, acceptable, poor - according to SITOD classification). The success rate (excellent and good results) was 75% and no patient needed surgical treatment.

Extracorporeal shock wave therapy (ESWT) seems to be useful as a conservative alternative in patients who were unsuccessfully treated for plantar fasciitis. ESWT was able to decrease pain and increase the amount of comfortable walking time in patients with previously unsuccessful non-surgical treatment.