

# EXTRACORPOREAL SHOCK WAVE THERAPY APPLIED TO CHRONIC PLANTAR HEEL PAIN

## Authors:

BF, Meyer; KK, Simões; E, Thober; M, Meyer

## Institution:

Centro de Ondas de Impacto(COI)

Porto Alegre, Brazil

Sociedade Brasileira de Terapia por Ondas-de Choque(SBTOC)

The Chronic Plantar Heel Pain (CPHP) can be incapacitating to patients and a challenge to doctors. This is reported at about 20% of general population. The most common local pain is the insertion of plantar fascia in the medial tuberculum of the calcaneum bone, being the Fasciitis Plantar the most common diagnosis.

Histological evaluation in patients with CPHP demonstrate changes like: proximal thicken of plantar fascia, vascularization decrease, inflammation of peri-tendon, decrease of flexibility and modification in the noci-receptors.

The objective of this study was to evaluate the effectiveness of the Extracorporeal Shock Wave Therapy (ESWT) in the treatment of CPHP. Patients with minimum age of 18 years old and symptoms for more than six months were included, with no success on conservative treatments. Twelve months of minimum time of attendance after the first application of ESWT.

It was excluded patients with contra-indications to ESWT and received local corticoid infiltration at least one month. It was used the evaluation functional protocol of AOFAS Score. The equipment used was the ORTHIMA(Direx), that uses an electrohydraulic generator. The treatment consisted of 1500 impulses, with energy of 0,35 mJ/mm<sup>2</sup>, being accomplished between 1 to 3 sessions with interval of 60 days; however we only repeat sessions on those patients that persist with incapacitating pain. The focus was the site of maximum reproduction of local pain at digit-pressure. No anesthesia was dispensed. It was treated 104 patients, and 94 patients answered the questionnaire. Seven cases were bilateral, that totalized 101 feet in this study. Were evaluated 34 men and 60 women, with 57,3 average age, 79,68 kg average weight and 22,87 months of previous pain. The time of attendance after-ESWT was 19,14 months. 63% received only a single application. Subjectively 80% were satisfied in relation of pain relief. There was a significant increase of the AOFAS Score in 94% of the patients ( $p < 0.001$ ). The Extracorporeal Shock Wave Therapy is an alternative of the effective treatment of the Chronic Plantar Heel Pain.