

# **Comparison between the efficacies of three dosing regimens of extracorporeal shock wave therapy for the treatment of chronic plantar fasciitis**

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## **Introduction:**

The optimal dosing regimen of extracorporeal shockwave therapy for the treatment of chronic plantar fasciitis remains to be determined. A review of the published literature reveals a wide variation in the dosing regimen, with variation in the number of pulses administered in each session, total energy administered, energy flux density of the shockwaves, time interval between treatment sessions, and number of treatment sessions administered.

## **Methods:**

The aim of this study is to compare the effect on pain reduction between three dosing regimens of extracorporeal shock wave therapy (ESWT) in the treatment of chronic plantar fasciitis through a randomized comparative non-blinded trial comparing efficacy in pain reduction and reduction in plantar fascia swelling. The first treatment arm consisted of two sessions of 2000 shocks administered 1 week apart, the second treatment arm consisted of two sessions of 2000 shocks administered with a one-month interval and the third treatment arm consisted of the equivalent number of shocks administered in a single session. A total of 90 patients were recruited for the study with 30 patients randomly assigned to each treatment arm. Follow ups were arranged at one month and three months post treatment.

## **Results:**

Reduction in pain and plantar fascia swelling for the first and second treatment arms were not significantly different at the first and second follow up. By comparison, there was significant reduction in pain score and swelling of the plantar fascia in the third treatment arm compared to the first.

## **Discussion:**

Although the subjects were not blinded to the treatment arm, care was taken not to imply superiority of any of the treatment arms, in order to reduce bias.

**Conclusion:** The clinical efficacy of ESWT treatment for plantar fasciitis in a single session is superior to multiple sessions.