

Transcutaneous radiofrequency in the treatment of plantar fasciitis-related pain: a case series

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Introduction: Plantar fasciitis (PF) is a multifactorial painful syndrome. Treatment is generally conservative, but 20% to 30% of cases become refractory, requiring the combination of therapies for pain relief. Transcutaneous radiofrequency (TRF) is an electrical stimulation modality with a potential analgesic effect. The objective is to evaluate the analgesic effect of TRF in patients with PF and refractory pain.

Methods: Twenty patients were invited to the outpatient clinic of the Orthopedics Foot Group of the Hospital do Servidor Público Estadual de São Paulo, diagnosed with refractory plantar fasciitis. After the informed consent form, the scale of pain intensity (NRS) and quality of life were applied through the SF-12 questionnaire. The treatment consisted of two sessions of TRF with an interval of 15 days between sessions. After three weeks, patients were re-evaluated with the same scales.

Results: The sample consisted of 20 patients, 17 females, and 03 males. The mean age was 64.04 ± 10.679 . Of these, 40% had a single diagnosis of PF, and 60% had another painful foot condition. There was a follow-up loss of 15% ($n = 3$). The distribution of the pain intensity scale (NRS) in the first step of the day was compared. Mean pain was lower after the procedure, 7.40 ± 1.788 versus 3.59 ± 2.501 , $p = 0.0004$, Wilcoxon. For daytime pain intensity, the mean was also lower, 7.40 ± 1.788 versus 1.79 ± 2.332 , $p = 0.001$, Wilcoxon. The inclusion of non-exclusive complaints from PF, the limited sample size, the lack of a control group, and possible researcher empathy may have affected the results.

Conclusion: Transcutaneous radiofrequency showed a significant analgesic effect in the pre- and post-procedure comparison in patients with plantar fasciitis. The findings encourage the development of a more robust, prospective, controlled, blinded study in a larger sample and with more rigorous diagnostic criteria.

Keywords: Fasciitis, plantar; Radiofrequency therapy; Administration, cutaneous.

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