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## **Shockwave therapy associated with eccentric strengthening for Achilles insertional tendinopathy: a prospective study**

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### **ABSTRACT**

**Introduction:** Conservative treatment for insertional Achilles tendinopathy (IAT) has failed to produce encouraging results in recent years. Shockwave therapy (SWT) has become a reliable option for the management of this disease in recent years. The objective of this study is to report the effectiveness of low-energy SWT combined with an eccentric strengthening protocol in 19 consecutive patients.

**Methods:** This is a prospective study of 19 patients diagnosed with IAT. The protocol consisted of SWT combined with eccentric training for 12 weeks. All patients were evaluated on the first day and after 24 weeks using the Victorian Institute of Sport Assessment-Achilles (VISA-A) score, the Pain Visual Analog Scale (VAS) and the American Orthopedic Foot and Ankle Society (AOFAS) questionnaire and algometry. The patients were also evaluated for compliance with the protocol, complications and final outcome.

**Results:** All patients completed the study without complications. In total, 15 (79%) patients fully complied with the Alfredson protocol, and 13 (68%) considered the treatment successful. At the final evaluation, the patients required more pressure on the calcaneus to trigger pain (Algometry 1), reported less pain when applying the algometer with 3kg of pressure (Algometry 2) and had less global pain (VAS) and higher AOFAS and VISA-A scores. All differences were significant.

**Conclusion:** Eccentric training combined with SWT is an effective treatment for IAT. Further placebo-controlled studies with a longer follow-up are necessary to support this statement.

**Keywords:** Shock wave therapy; Achilles tendon; Insertional tendinopathy.

