

TREATMENT THROUGH NON-INVASIVE NEUROMODULATION IN ACHILLES TENDINOSIS: A CASE REPORT



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Introduction/Background

Achilles tendinopathy is caused by excessive and/or repetitive stress on the tendon and the patient refers it as pain when initially loading and disappears with continued activity; the chronicity of the process determines the appearance of a tendinosis characterized by pain, swelling and functional impairment, due to a non-inflammatory degenerative process, with a disorganized collagenous structure.

Non-invasive neuromodulation is a technology where by electrical impulses are emitted to improve the performance of the nervous system. These impulses are used to reduce pain, restore mobility and muscle tone.

Materials and Methods

Clinical case of a 52-year-old patient with tendinosis of the left foot, whose symptoms do not improve with the application of other techniques.

• Signs and symptoms: pain when walking, episodes of functional impotence and edema in the lower limbs.

11 treatment sessions (2 sessions/week) were carried out with the NESA non-invasive neuromodulation device.

ASSESSMENT

- ✓ VAS scale
- ✓ Tendon ultrasound
- ✓ Pittsburgh questionnaire.

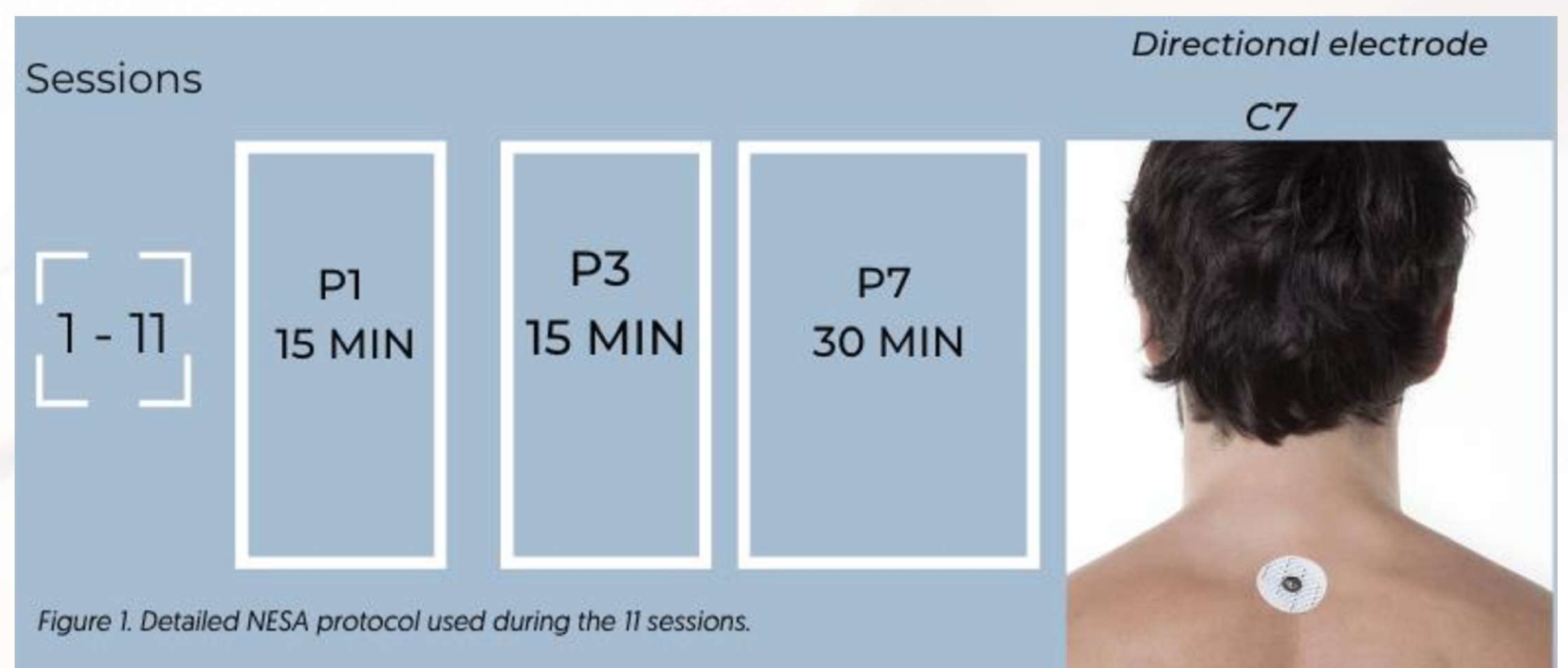


Figure 1. Detailed NESA protocol used during the 11 sessions.

Results

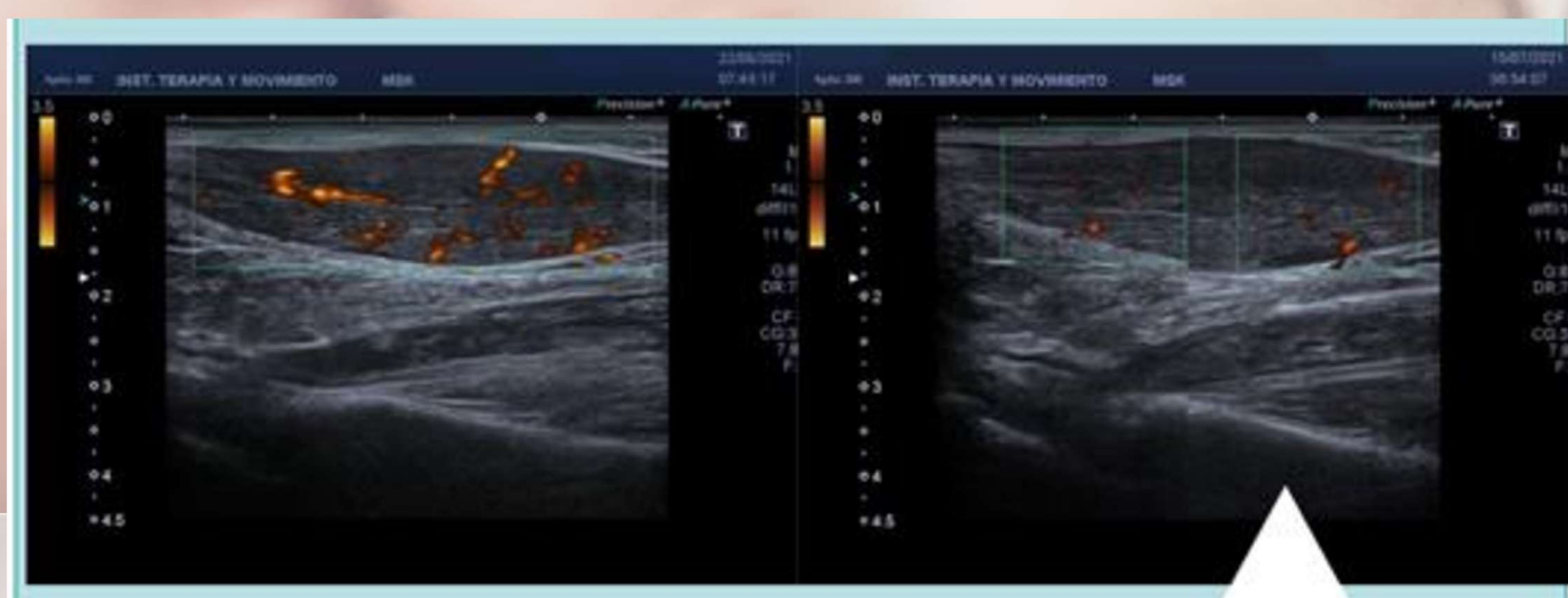


Figure 2. A pre-treatment image (left) and a post-treatment image (right) are shown. A decrease in the neovascularisation of the tendon after the NESA sessions can be identified. This demonstrates a direct involvement of the vascular system in the area. No changes in tendon width were demonstrated.

EVALUATION POST TREATMENT

- 5-point improvement in pain on the VAS scale.
- Reduction in general and local inflammation.
- 12-point improvement in sleep quality
- Stress improvement

Discussion and Conclusion

Non-invasive NESA Neuromodulation (NESA) can be considered a useful and reliable therapeutic approach for the treatment of Achilles tendinopathies within a multifactorial perspective.