

Potential Effectiveness of Focused Vibration Treatment for Psychogenic Erectile Dysfunction: A Case Series

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Introduction

The current non-pharmacological treatment of psychogenic erectile dysfunction (pED) is based on cognitive-behavioral interventions that often involve the participation of the partner, such as desensitization procedures, sensory focusing, and couples counseling. However, it is important to note that in many cases, patients may not have a stable partner or their partner cannot participate in the treatment.

The application of local mechanical vibration has shown promising results in increasing skin blood flow and nitric oxide production in healthy young adults. The relaxation of smooth muscle in the penis initiates and maintains an erection.

The local release of nitric oxide from autonomic dilator nerves and vascular endothelium is crucial in initiating and sustaining this process. Technological advances have allowed the design of vibrating devices that men can use during sexual encounters.

Aim

To determine if the on-demand use of a focused vibration device can increase blood flow and promote relaxation of erectile tissue to improve erectile function in patients with pED.



Figure 1. Tenuto 2 is a non-invasive vibrating device that stretches & adapts around the penis and perineum. It has 4 strong, anatomically positioned motors and can be worn both before and during intercourse.

Method

Seven sexually active men diagnosed with pED based on criteria for Erectile Disorder from the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) and without a stable partner, were instructed to use a vibrating device called TENUTO II during their sexual encounters for duration of 8 weeks.

This device generates focal vibrations on the penis and the perineal area in intervals of 10 seconds of vibration followed by 10 seconds of pause, with a frequency of 50Hz and an amplitude of 2mm.

The five-item Spanish version of the International Index of Erectile Function (IIEF-5) questionnaire was used to assess symptoms before and after the procedure and the Erectile Dysfunction Inventory of Treatment Satisfaction (EDITS) questionnaire was used for evaluating satisfaction with treatment.

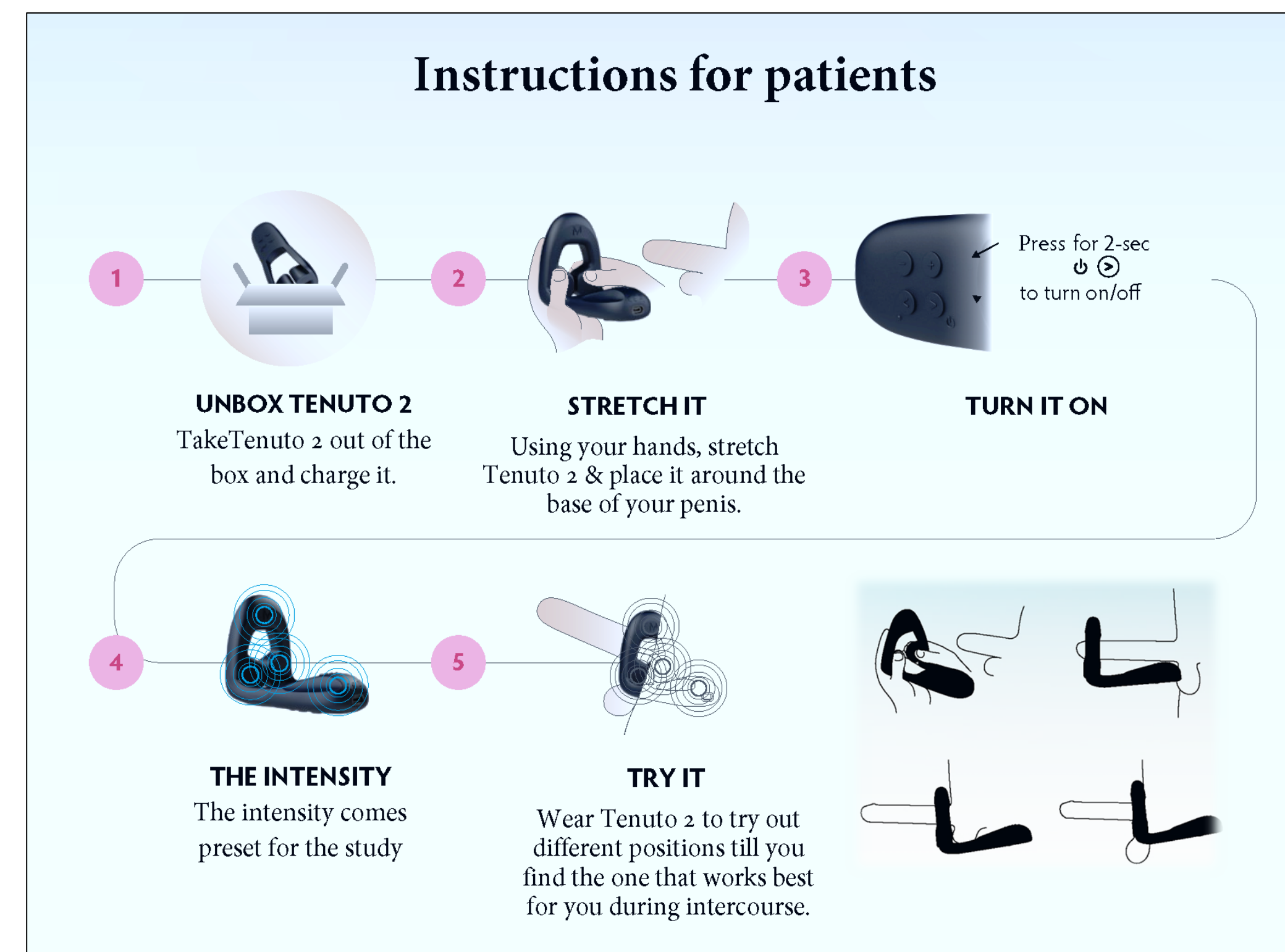


Figure 2. Photo of the instruction manual that was given to the patients participating in the study on how to use the Tenuto 2 device with a predetermined frequency pattern set by the researchers.

Results

After the using the device, all patients enrolled mean age of 36.1 years (range 28-45) experienced an improvement in erectile function, mean IIEF-5 score pretreatment was 11 (range 5–13) mean posttreatment IIEF-5 score was 20 (range 18-25). No adverse effects were reported during the treatment.

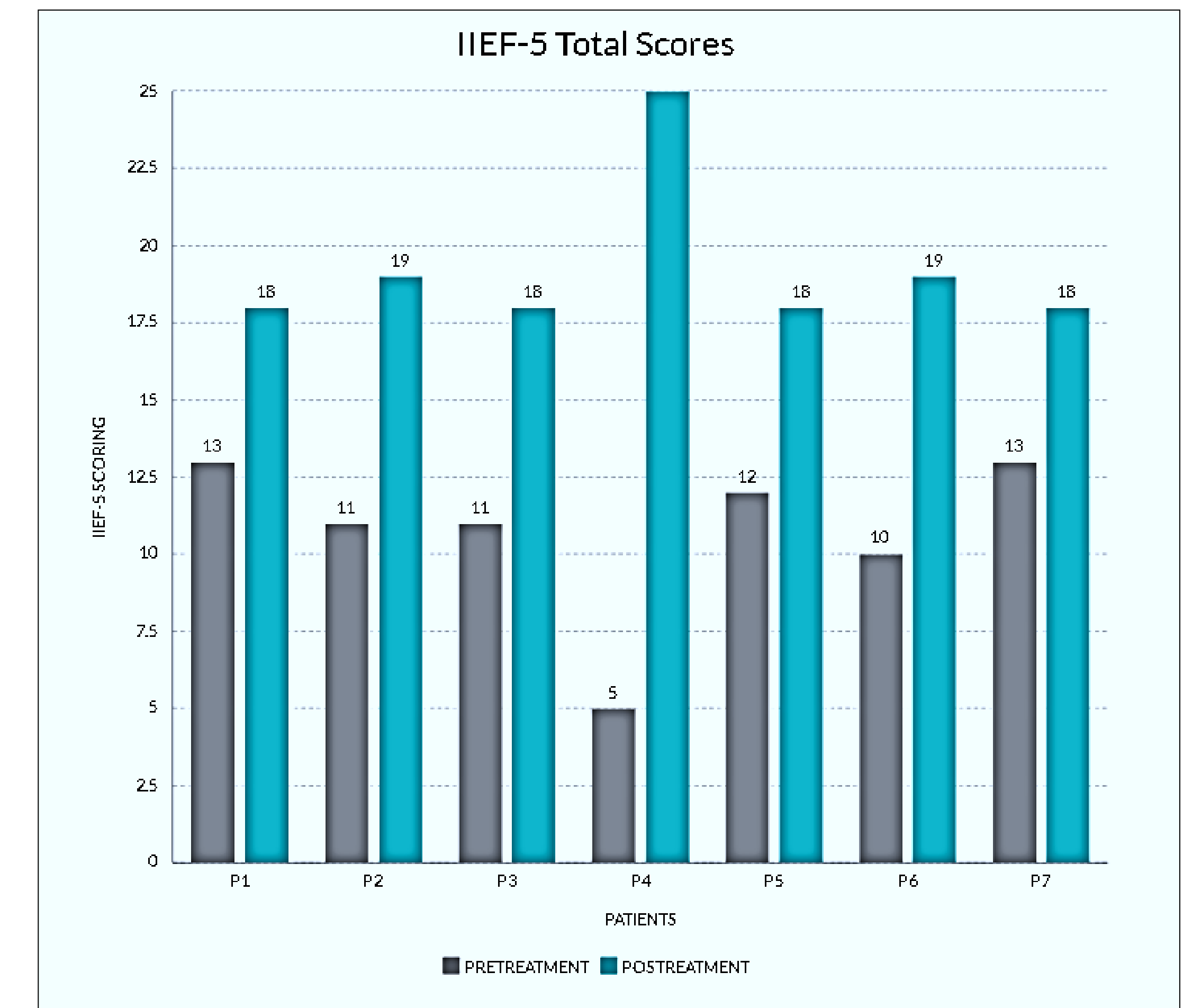


Figure 3. Total scores of the Spanish version of the International Index of Erectile Function (IIEF-5) before and after treatment of the patients.

Conclusion

This case series suggests that use of an on-demand focused vibration device could be a potentially effective and safe therapeutic option for men with pED. However, further studies with a larger number of participants and a more rigorous research design are needed to confirm these preliminary findings.