

TENS to treat vestibulodynia: A randomized trial

F. Murina, V. Bianco, et al BGO An International Journal of Obstetrics and Gynaecology May 2008 1165-1170.

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Introduction: Vulvodynia is vulvar discomfort of burning nature in absence of physical findings or neurological disorder. Most often pain is in vulvar vestibule.

TENS is used to treat pain. Addresses 3 types of pain fibers AB, AF, C fibers. TENS settings parameters depends on type of fibers stimulated and may be beneficial to for treatment of vulvar pain.

Aim/Primary Aim: To determine efficacy of TENS for treatment of vestibulodynia.

Study Design/Study Format: double arm placebo controlled trial determined by computer. Subjects 40 women, average ages 30 TENS, 26 placebo, similar dx with vestibulodynia. (hx of 6 mo vulvar pain with tampon insertion, attempted intercourse, + cotton swab test, in absence of other causes).

Assignment of patients was randomized via computer
Oxford Centre for Evidence grading scale 1b.

Methods:

Outcome measures used FSFI, VAS, short form of McGill Melzak pain (SF MPQ), Marinoff dyspareunia scale

Blinding No.

TENS delivered by internal probe 20mm inserted.

15 min @10 Hz/ 50 uS the

15 min @50 Hz /100 uS

Intensity strong to tolerance

Placebo: 2 sets of 3 sec stim (2Hz/2uS), then 15 min pause

Both groups 20' 2x/wk,

Flowed by FSFI, VAS, SFMPQ, Marinoff 20 min after sessions, @FU exam and 3 months after end of Rx.

Neither group received any treatment for 3 months post study.

Results:

All in the TENS group had sigif improvement.

The dropout rate was 0.

Treatment was significantly effect for TENS group. FSFI increased above cutoff in 15 of the 20.

No change for placebo group. Worse in VAS and FSFI.

Discussion:

Vestibulodynia may have neuropathic etiology. Women shoe lower mechanical and heat pain thresholds in this area than other body parts indicating sensory deregulation.

TENS has been shown to be effective for mgmt. of chronic pain.

Theories:

Gate Theory: blocks info from going through nociceptive fibers by activating the AB fibers (at 50-100us).

Extra-segmental TENS = release of opioids by stimulation of afferents and motor fibers.

The number of treatment in study was only 2x/wk for 10 weeks, for 20 total sessions to minimize vestibular irritation due to thinness of area.

Internal sensors used instead of external.

If external, place at either spinal cord level S2-4 or ishiorectal fossa Alcock's canal).

Setting placed to modulate to prevent accommodation to the signal.

3 of the 15 with Normal FSFI relapsed 3 months late so maintenance is needed.

Strengths: 1. No dropouts.

Weaknesses: 1. small number of participants.

2. Easy for participants in placebo group to determine that theirs is the sham treatment.

Conclusion

Significant and easy to administer this treatment at home or in clinic.

Inexpensive,

Low risk.

Clinical Application

1. Does anyone use TENS in their clinic or as a home program for pain clients?
2. What is the source for the internal probes and can they be adapted to fit any TENS?
3. How can TENS be used as an adjunct to our treatments in the clinic?

Other References:

TENS for OAB was shown to be effective

Slovak, Non Invasive Transcutaneous Electrical Neuromuscular Stimulation in treatment of Overactive Bladder.
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