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Title: THE EFFECT OF LOW FREQUENCY ELECTRICAL STIMULATION THERAPY IN UNSTABLE BLADDER

Aims of Study:

Prostatism patients frequently experience unstable bladder symptoms, urinary frequency or urgency, etc due to bladder irritation, whereas the bladder inhibition reflex system responds best at 5 to 10Hz (Erlandson et al, 1977a; Fall et al, 1977b, 1977c). Thus, we tried low frequency electrical stimulation therapy (EST) in patients with irritation symptoms of the bladder among prostatodynia patients to evaluate the effect of low frequency electrical stimulation in unstable bladder.

Methods:

Subjects were 20 patients whose nocturia frequency was equal or more than 2 times for 6 hours night sleep, who were 17 to 47 years old (average = 35.5) and had prostatodynia. We measured nocturia frequency with voiding diary. The patient was given EST in reverse Trendelenburg's position through detrusor inhibition (rect angular current, 5 to 10Hz frequency, 200 and 500microsecond impulse, 20 to 75%, 6seconds stimulation period with 6seconds resting period, synchronous, 21minutes) using the anal plug electrode in the anus and the surface electrode on the lower abdomen twice per week total 12times. We evaluated the improvement of the frequency just-after and at 4week after the treatment.

Results:

The nocturia frequency of pre-treatment, just-after treatment and in 4weeks after treatment was 2 to 6times (average = 3.4), 0 to 3times (average = 1.5) and 1 to 3times (average = 1.7) respectively. We could find a significant statistical decrease of the nocturia frequency in 18 of 20 patients just-after and at 4week after the treatment respectively (10 patients had the nocturia frequency equal or less than once just-after and at 4weeks after the treatment respectively; paired t-test, P value = 0.00005 and 0.00005).

Conclusions:

We believe that low frequency EST is helpful to improve irritation symptoms of the bladder in unstable bladder including prostatism.

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None

