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FUNCTIONAL MAGNETIC STIMULATION AS A TREATMENT OF URINE INCONTINENCE IN WOMEN: THE CHAIR

Aims of Study

There are many conservative therapies available in the treatment of stress and urge incontinence. Beside medicational treatment and behaviour training there are several neurostimulating methods as a treatment. We know functional anogenital electrical stimulation (FES), transcutane electrical nerve stimulation (TENS), stimulation of the sacral nerves and Stoller afferent nerve stimulation (SANS) (1). Functional magnetic stimulation (FMS) has many advantages. It is a recent painless and safe treatment for urine incontinence (2,3). The aim of our study was to investigate the effectivity and appliability of FMS in a prospective study of 24 women with urine incontinence.

Methods

A total group of 24 women (12 with urge incontinence and 12 with urge and stress incontinence) were treated with FMS created by an electromagnetic chair (Neocontrol ®). The patients can sit fully clothed in the chair during the treatment. We excluded women with a pacemaker, metal implants, arrhythmia and pregnant women.

Patients with urge incontinence were treated with 2 x 10 minutes with 10 Hz and patients with mixed incontinence were treated with 10 Hz during 10 minutes followed by a stimulation with 50 Hz during another 10 minutes. All patients were treated two times a week during eight weeks. After that time we evaluated the results of the treatment with the use of the padtest, miction diary and the stress leak point (in the group with urge and stress incontinence). With a subjectivity score (0-6) patients could qualify the quality of their life in a range from good (0) to terrible (6).

Results

In 58% of the patients an objective improvement of the incontinence was observed. Three patients were cured. The miction frequency diminished significantly after treatment in the total group, the group with urge incontinence and in the group with mixed incontinence. The loss of urine diminished significantly in the total group and in the group with urge incontinence. The test was not significant in the group with mixed incontinence. 71 % of the total group had noticed a subjective improvement (table 1). The stress leak point improved in seven of twelve patients

Conclusions

Functional magnetic stimulation (FMS) is a non invasive and painless treatment for urine incontinence. The treatment with FMS is effective and can be easily applied in a clinical setting.

References

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	Before therapy median (min-max)	After therapy median (min-max)	p-value
Miction freq. total	12 (5-22)	7 (2-14)	p<0.001
Miction freq. urge	12.5 (6-22)	8 (2-14)	p<0.005
Miction freq. mixed	10(5-16)	5 (3-13)	p<0.01
Padtest total(gr)	67 (10-313)	31 (0-215)	p<0.05
Padtest urge(gr)	94 (11-313)	62 (0-215)	p<0.05
Padtest mixed(gr)	49 (10-305)	32 (9-151)	NS

Subjectivity score total	5 (3-6)	3 (0-6)	p<0.001
Subjectivity score urge	5 (3-6)	3 (0-6)	p<0.01
Subjectivity score mixed	4 (3-6)	3 (2-5)	p=0.01

Table 1: Statistic analysis. Wilcoxon matched pair test