

MAGNETIC THERAPY IN THE TREATMENT OF WOMEN WITH URINARY INCONTINENCE – A PROSPECTIVE, RANDOMISED, DOUBLE BLINDED STUDY

Aims of Study

To determine whether the continuous magnetic stimulation influenced the power and the duration of pelvic floor muscles (PFM) contractions in women with urinary incontinence (UI).

Methods

This is a prospective, double-blinded, randomised study done in 40 women with UI. The diagnosis of UI was set on the basis of urodynamic testing. The power and the duration of pelvic floor muscles (PFM) contraction was tested by means of perineometry. After the randomisation done every patient received PULSEGEN device producing a continuous magnetic field of the intensity $B=10 \mu\text{T}$, 10 Hz. Stimulator was glued to a pad and the patient was asked to wear it day and night for 2 months. At the second visit the perineometer measurements were repeated and data analysed using Wilcoxon Signed Rank test (SPSS 8.0 for Windows).

Results

40 women were enrolled in this study, 18 (45%) of them having a mixed-, 14 (35%) with urge, and 8 (20%) women with stress urinary incontinence. 24 out of 40 women received an active device, whereas the rest of 16 patients received a placebo. The average age of patients was 54.6 (SD=9.7). A statistical significant difference in the maximal power of PFM contraction between the pre- and post- test perineometer measurements was observed in the active group ($p=0.025$). (Figure 1: Effectiveness of magnetotherapy in the treatment of women with urinary incontinence). However, this was not true for the placebo group ($p=0.209$). Further, there were no statistical significant differences in maximal power of PFM contraction between the active and placebo group either in pre- or post- test perineometer measurements, $p=0.979$, $p=0.756$, respectively. The duration of maximal PFM contraction did not change significantly after magnetic therapy in either of groups ($p>0.05$).

Conclusions

Our data showed, that a statistical significant difference in the power of PFM contraction occurred in the active group, however this was not the case in the placebo group. Due to the small study sample there was no statistical significant differences in the duration of PFM contraction in either of groups. A study done in a larger sample is required in order to confirm the true effectiveness of magnetic therapy in women who suffer from urinary incontinence.