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PELVIC FLOOR MAGNETIC STIMULATION (PMS) THERAPY FOR URINARY INCONTINENCE

Aims of Study

Pulsed magnetic technology has been developed for pelvic floor muscle strengthening for the treatment of urinary incontinence. This report includes a prospective multi-center study of pelvic floor magnetic stimulation (PMS) for urinary incontinence.

Methods

Sixty-four women with demonstrable stress or urge urinary incontinence were studied. The mean age was 48 years. Fifty-six completed PMS therapy and analysis. Evaluation before treatment included bladder diaries, 1-hour pad weight test, perineometry, and a quality-of-life survey. For treatment the patients were seated fully clothed in a PMS system (Mcube, BioCon-2000™) with a magnetic field therapy head in the seat. Treatment sessions were for 20 minutes, twice a week, for 6 weeks. After PMS therapy, all of the measures were repeated at 8 weeks, including the bladder diaries, 1-hour pad weight test, perineometry and quality-of-life survey.

Results

Of the 56, 13 patients were completely dry (23.2 %). The mean weight of pad use was reduced from 15.26 to 2 gram ($p < 0.01$) after PMS. The frequency of leak episodes was reduced from 2.04 to 0.94/day after treatment ($P < 0.001$). The micturition frequency also was reduced from 8.35 to 7.19/day after treatment ($P < 0.001$). The pressure of pelvic muscle contraction increased from 30.3 to 36.95 cmH₂O ($P < 0.001$). 45 patients (80.35 %) were satisfied with the results of PMS. During the study periods, adverse events were not reported.

Conclusion

PMS therapy using BioCon-2000™ is effective for both stress and urge incontinence. Longer followup is required to determine how long the benefits of treatment last and whether retreatment will be necessary.