

BIOFEEDBACK AND PELVIC FLOOR MUSCLE EXERCISES FOR THE REHABILITATION OF STRESS URINARY INCONTINENCE

Aims of Study

Pelvic floor muscle exercises are today accepted as first-line treatment for stress urinary incontinence. Many women, however, are not aware of how to contract the pelvic floor muscles (1). Biofeedback is a form of learning or re-education in which the participant is retrained within a closed feedback loop (2).

We aimed to assess the effectiveness of pelvic floor muscle exercises for the rehabilitation of genuine stress urinary incontinence. Results of the two methods of digital palpation and biofeedback for teaching the patients pelvic floor muscle exercises was also compared.

Methods

Fifty patients with urogynecological evaluation verified diagnoses of genuine stress urinary incontinence were included into the study. This randomized, controlled clinical study consisted of three groups. All of the patients were on hormone replacement therapy. The first group of 20 patients were taught pelvic floor muscle exercises via digital palpation and instructed to continue the exercises as a home programme. These patients were controlled in the outpatient clinic weekly for a follow up period of 8 weeks. The second group of 20 patients underwent pelvic floor muscle exercises via biofeedback three times a week for 8 weeks. Each biofeedback session lasted 20 minutes. The third group of 10 patients (control group) did not have any exercises programme. Each group of patients were evaluated with the following parameters initially and 8 weeks later: pad test, perineometry, muscle strength assessment with digital palpation, incontinence frequency and social activity index.

Results

All of the evaluation parameters revealed that the first two groups of patients were improved with respect to the pretreatment period. The results of these two groups were also significantly better than the third group of patients ($p < 0.001$). The results of the first two groups were no better than each other except perineometry ($p > 0.05$). Perineometry value in biofeedback group is better than perineometry value in digital palpation group ($p < 0.05$).

Conclusions

Pelvic floor muscle exercises which were taught by way of biofeedback and digital palpation resulted in significant improvement of the parameters of pad test, perineometry, digital palpation muscle strength, incontinence frequency and social activity index. Hence, these methods of pelvic floor rehabilitation were effective for the treatment of genuine stress urinary incontinence.

References:

- 1- Glavind K, Laursen B, Jacuet A. Efficacy of Biofeedback in the Treatment of Urinary Stress Incontinence. *Int Urogynecol J* 1998; 9: 151-3.
- 2- Cardozo LD. Biofeedback in overactive bladder. *Urology* 2000; 55 (5A Suppl): 24-8.