

BIOFEEDBACK VERSUS ELECTROSTIMULATION IN TREATMENT OF FEMALE STRESS URINARY INCONTINENCE

Hypothesis / aims of study

In the last years urologists and gynaecologists have become increasingly aware of the need to offer conservative therapy for female stress urinary incontinence. There is good objective evidence from randomized controlled trials to support the use of pelvic floor exercises¹. In 50 percent surgery could be avoided after a six months therapy with intensive pelvic floor muscle exercises.

We investigated the effectiveness of pelvic floor muscle for the treatment of female stress urinary incontinence. In this study the efficacy of biofeedback therapy versus electrostimulation is compared.

Study design, materials and methods

In a prospective randomized study 70 patients have been evaluated so far by clinical and urodynamic investigation and were given pelvic floor muscle exercises with the use of electrostimulation or visual biofeedback. The patients were evaluated via stress and padtest under standardized conditions, digital palpation based strength of levator contraction (Oxford Score 0-5 points, 0=no contraction, 5=maximal contraction) and Visual Analog Score (VAS) based suffering from the disease (0-10 points, 0=no suffering, 10=maximal suffering). After three months of training twice a day for ten minutes, where the patients were asked to tighten the pelvic muscles and hold the contraction for 10 seconds followed by a period of relaxation for also ten seconds, the success of the therapy was tested via stress and padtest and analyzing the Oxford and Visual Analog Score. The results of 31 women are shown.

Results

(before and after 3 months of therapy)

| n=31(average) | Electrostimulation (n=21) | | Biofeedback (n=10) | |
|---------------------|---------------------------|-------|--------------------|-------|
| | before | after | before | after |
| Stresstest | 2,32 | 1,50 | 2,60 | 1,70 |
| Padtest | 4,82 | 6,21 | 11,4 | 10,00 |
| Levator Contraction | 1,75 | 2,55 | 2,00 | 2,70 |
| VAS | 6,00 | 4,81 | 6,70 | 5,33 |

Interpretation of results

So far our results show that women benefit from both biofeedback and elektrostimulation in a comparable way. There is an decrease in stress- and padtest, an increase in levator strength and an increase in quality of life for the women. Both methods are effective, show no side effects and will become more and more important in the future.

Concluding message

Biofeedback and electrostimulation are very sufficient methods for conservative therapy of female stress urinary incontinence but more research is required to evaluate which patients can benefit from biofeedback versus electrostimulation.

References

¹Jundt et al. ; Eur J Obstet Gynecol Reprod Biol. 2002