

THE SHORT-TERM EFFECT OF INTENSIVE BIOFEEDBACK COMBINED WITH HOME PELVIC FLOOR TRAINING ON FEMALE GENUINE STRESS URINARY INCONTINENCE

Hypothesis / aims of study

Genuine stress urinary incontinence (GSUI) is one of the most frequent female bladder dysfunction affecting quality of patient life seriously. The operative therapy of moderate and severe GSUI has improved the treatment, but still have many case showed no response and postoperative complication, such as traumatic occlusion, concurrent disease, et al. In present study we hypothesis that the short-term intensive biofeedback combined with home pelvic floor training is a useful treatment alternative for moderate female genuine stress urinary incontinence (GSUI). Therefore, the aims of our study was to investigate the short-term effect of intensive biofeedback combined with home pelvic floor training on female genuine stress urinary incontinence (GSUI).

Study design, materials and methods

According to clinical symptom, 50 female patients with GSUI were divided into three groups: mild(20), moderate(15) and severe (15) group, respectively. Intensive biofeedback combined with pelvic floor training was performed on all patients three times a week for twelve weeks, the change of pelvic myoelectricity and rectum pressure was detected by a Urodynamic System. At the first four weeks, pelvic myoelectricity and rectum pressure increase gradually to 130% of outset treatment, which was retained to termination. After every time treatment, the patients were required to contract pelvic floor at home according to home training program. Urinary diary, the score of international continence inquiring committee's questionnaire (ICI-Q-SF) and urodynamics evaluation were completed before and after treatment. Three months later, follow-up visit was carried out.

Results

In the three groups, Valsalva leak point pressure(Pvlp) and maximum urethral closure pressure(Pmuc) were significantly higher, leakage times (LT)and the scores of ICI-Q-SF significantly lower than those of before treatment ($P < 0.05$). The scores of ICI-Q-SF and LT in mild group were significantly lower, functional voided volume(VF), Pvlp and Pmuc were significantly higher than those in both other groups. The effective rate in mild group at three months after treatment was 95%, significantly higher than that in moderate group and severe group(67% and 53%) ($P < 0.05$).

Interpretation of results

GSUI is considered to be related with the descending function of urinary canal, which is caused by accouchement, birth injury, apoplexis, et al. Patients will benefit from correct and initiative pelvic floor training from intensive biofeedback, which can intense the urethral closing pressure. Our study is showing that combing with home pelvic floor training, the treatment result will improve the treatment. Obviously, female patients of mild GSUI are sensitive to the intensive biofeedback combined with home pelvic floor training, and the short-term treatment is satisfying and effective.

Concluding message

The intensive biofeedback combined with home pelvic floor training is a useful therapy to treat women with mild GSUI.

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Is this study registered in a public clinical trials registry?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	Yes
Specify Name of Ethics Committee	Ethics Committee,First Affiliated Hospital of Zhengzhou University
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes