

EFFICACY OF A PELVIC FLOOR MUSCLE TRAINING GIRDLE IN THE TREATMENT OF THE STRESS URINARY INCONTINENCE

Hypothesis / aims of study

Pelvic floor training is effective for the treatment of stress urinary incontinence (SUI) if it is applied appropriately. However it is very difficult to continue the training until good results are obtained due to difficulty in understanding the correct methods. There have been few training devices reported for pelvic floor muscles. We applied a pelvic floor training girdle (PFTG) for SUI patients to investigate whether it is effective in strengthening pelvic floor muscles.

Study design, materials and methods

Twenty patients who visited our clinic with complaints of SUI or mixed urinary incontinence. Mean age of them was 47 (31-63), Mean BMI 23.3 (20.2-31.5), and Mean parity 1.8 (0-3). PFTG manufactured by Kobayashi Pharmaceutical Company Limited was applied for the patients. Basic structure and training mechanism are shown in Fig.1. Patients wore PFTG for at least eight hours per day. The wearing time and pedometer measurement were recorded by the patients. Sixty minutes pad test and patients' symptom scores with IPSS, OABSS and ICIQ-SF were evaluated before, one month and three months after application of PFTG. Electrical potentials of vaginal muscles were measured with FemiscanTM. Statistical analyses were performed with Student's t-test

Results

Mean wearing time was 9.7 (1-20) (hours/day), and mean daily pedometer number 6150 (20-27747). According to pad test, urine leakage decreased after application of PFTG (not significantly). (Fig.2). ICIQ-SF score significantly decreased 1m, 2m and 3m after application of PFTG (Fig.3). Maximal contraction electrical potential increased after application of PFTG (but not significantly)(Fig.4). As for the muscle contraction ability, the contraction velocity increased 1m and 3m points (Fig.5).

Interpretation of results

According to the increase in the maximal contraction electrical potential, the muscle contractile ability and the contraction velocity suggested increased strength of pelvic floor muscles.

Concluding message

Application of the pelvic floor muscle training girdle is likely to be effective in strengthening the pelvic floor muscle. Further study is needed to evaluate the effectiveness of this device.

Fig.1 Basic structure and mechanism of PFTG

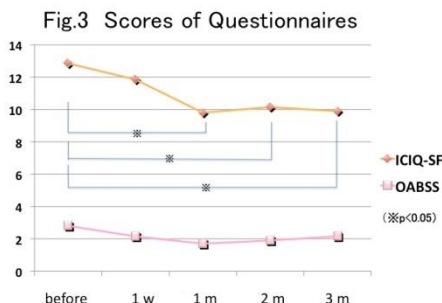
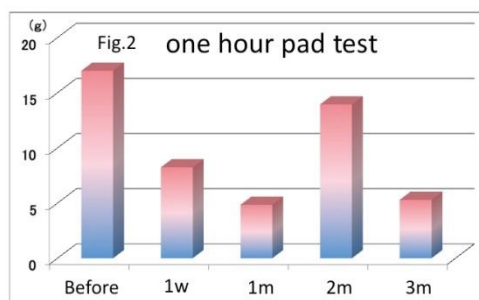
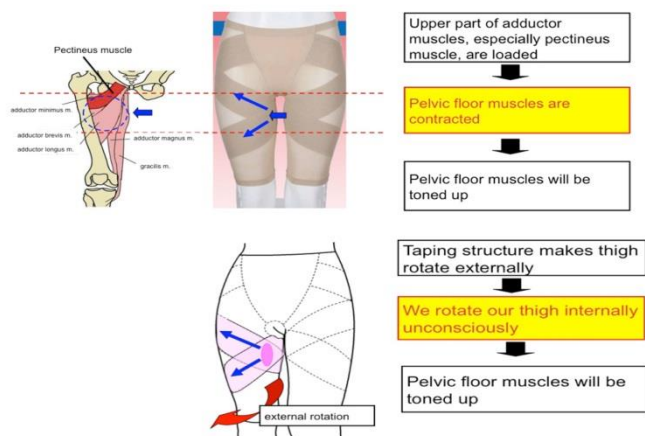


Fig.4 maximum contraction electrical potential

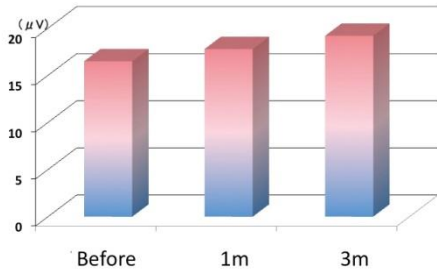
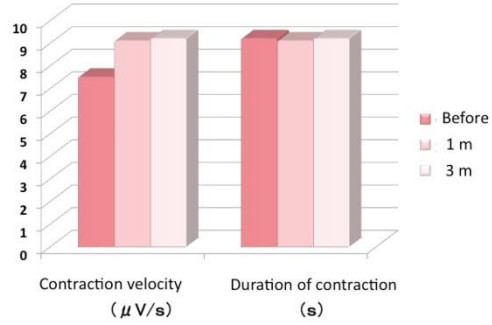


Fig.5 muscle contraction ability (electrical potential by Femiscan)



Disclosures

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