

CONSERVATIVE THERAPY OF STRESS URINARY INCONTINENCE: 7 YEARS OF PELVIC-FLOOR-REEDUCATION-PROGRAM AT AN UNIVERSITY HOSPITAL. A RETROSPECTIVE STUDY WITH FOLLOW-UP OF 434 PATIENTS

Hypothesis / aims of study

The aim of the study was the evaluation of the efficacy of an intensive and controlled pelvic-floor reeducation as primary therapy of urinary stress incontinence with regard to short and long term subjective and objective improvement of symptoms and signs of stress urinary incontinence.

Study design, materials and methods

All 434 patients with stress urinary incontinence treated in the pelvic floor-reeducation program at our clinic between September 1996 and March 2003 were evaluated. Examinations included among others: conventional urodynamic studies, the clinical cough stress test (observation of jet-leakage of urine in supine position = SUI °III; jet-leakage of urine in the standing position = SUI °II, drop-leakage of urine in the in the standing position = SUI° I; no leakage during coughing = SUI° 0), the semiquantitative palpatory determined maximal pelvic floor muscle strength (Oxford-grading, scale 0 – 5) and determination of pelvic-floor-EMG-potentials as a objective measure of the maximal pelvic floor contraction strength. According to our pelvic-floor-reeducation concept all patients received a thorough incontinence counselling, individual instructions for pelvic floor exercises and supporting coping strategies. Pelvic floor reeducation consisted of biofeedback or electro-stimulation therapy with computer controlled electromyography (EMG; Haynl Elektronik) performed by a specialised therapist. The follow up was performed through an incontinence questionnaire.

Results

Mean age: 52 years (range: 25 – 88). 283 women completed the training (group 1, average number of training sessions: 8.7), 120 patients ended therapy prematurely (group 2, average number of training sessions: 5.1), 31 patients were dismissed following a single counselling and were not included in the program. Results following completion of therapy (short-term): a statistically and clinically significant improvement of the clinical stress test (cough test) was seen in group 1: Before therapy: 116x SUI III° (57%); 36x SUI II° (18%), 18x SUI I° (9%), 35x SUI 0° (17%) as opposed to after the therapy: 9x SUI III° (4%), 34x SUI II° (17%), 48x SUI I° (23%), 107x SUI 0° (52%). 7 (3%) women refused the test. There was a significant increase in the oxford score by 1.2 points (2.9 to 4.1; p<0.001). 95% of all women in group 1 reported a subjective improvement of their symptoms: 15 percent "somewhat improved", 24% "improved", 46% "markedly improved", 11% "healed". The EMG-potentials as a measure of the maximal pelvic floor contraction strength almost doubled (11.3 µV to 20.5 µV; p<0.001).

Long-term-results (questionnaire): The average follow-up time was 2.8 years (range: 3 months to 7 years). 354 (80%) of the questionnaires returned. Overall, 228 women (71%) reported an improvement of their stress incontinence following completion of therapy. Only 7.8% of women within group 1 underwent an incontinence-operation following completion of conservative therapy as opposed to 33.3% of group 2.

Interpretation of results

An intensive controlled pelvic floor training is very effective. The therapeutic effect diminishes with time. Avoidance of an operative therapy is often possible.

Concluding message

All women suffering from stress urinary incontinence should be offered an intensive pelvic-floor-reeducation (electrostimulation and/or biofeedback-therapy) prior to surgery.