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PELVIC FLOOR MUSCLE REHABILITATION FOR FEMALE URINARY INCONTINENCE: A 6-YEARS EXPERIENCE, EVALUATING THE OUTOCOMES AND THE PARAMETERS BEFORE THE TREATMENT

PELVIC FLOOR MUSCLE REHABILITATION FOR FEMALE URINARY INCONTINENCE: EVALUATION OF THE OUTOCOMES AND THE PARAMETERS BEFORE THE TREATMENT. OUR EXPERIENCE

INTRODUCTION AND AIM OF THE STUDY

The pelvic floor muscle rehabilitation can represent a first therapeutic approach of the female urinary incontinence (1) . The outcomes are strictly subordinate to the diagnosis and the selection of the patients. We treated 136 consecutive patients and evaluated the parameters before the treatment as regard to the outcomes.

MATERIALS and METHODS

From December 2004 to December 2009 we have evaluated 178 women suffering from stress (SUI) or mixed urinary incontinence (MUI). Exclusion criteria: overactive bladder syndrome, mild or severe pelvic organ prolapse (greater than stage I), suggestive pattern of obstruction on urodymanic evaluation, neurogenic bladder disorders and urinary tract infections. Therefore we enrolled 136 patients, aged from 52 to 74 years. 84 patients suffering from SUI and 52 suffering from MUI. Work up before the treatment: medical hystory, physical, uro-gynaecological and neuro-urological evaluation, urinalysis, PAD test according to International Continence Society (ICS), Kings' Health questionnaire for the appraisal of the quality of life. The urodynamic study has been performed following the good urodynamic practise recommandations of ICS, including Valsalva Leak Point Pressure. For every patient we evaluated: the anus-vulva distance (we considered patologic if > 2,5 cm), the pattern of fibrous central nucleus, the vulvar width, the use of muscular synergies, the PC test, the beginning of the menopause, the parity and the motivation to the treatment. Every patient was been treated by the pelvic floor muscle rehabilitation in our Outpatients' department of Urodynamic study through the awarness of the perineal muscle and particularly of the elevator ani muscle, the exclusion of synergies, the muscular training by physiokinesitherapy and pressure biofeedback with endovaginal probe. Finally we trained the use of the selective muscular contractions in the daily activities. The lenght of the cycle: from 8 to 16 weeks, according to the compliance of the patients. The work cycle was characterized by vuluntary muscle contraction for 5 seconds, it was spaced out for 10 seconds of rest and mantainance of endurance, for a total lenght of the cycle for 20 minutes, 2 times for a week. Medium follow up: 32,1 ± 3,4 months. The patients have been controlled by physical examination, PAD test, evaluation of the work cycle and Kings' Healt questionnaire. Statistical analysis with significance at $p<0.01$

RESULTS

97 patients (71,3%) obtained outcomes (group A), while 39 patients (28,7%) have not had improvements (group B). Particularly in the group A 20 patients have become completely dry (PAD test negative) and with improvement of the urgency or urge incontinence, while the others 4 patients obtained the improvements for which they would advise the treatment (reduction in PAD test . In the group A the PC test is improved in the 88% of the patients, while in the group B in the 50%. Moreover the work cycle was different between the groups: in group A we obtained an optimal or higher activity both for the length of contraction and for the endurance, while in group B we noticed a rise of the muscle length but not of the endurance; moreover the patient was enable to use the muscle in stress conditions. Considering the medium follow up, the group A patients showed a firmness fo the outcomes (both PC test and endurance) while in the group B patients the PC test was stable, but the length of contraction returned to the values before treatment. Between the 2 groups, the menopause and weakness of the fibrous central nucleus was statistically different ($p < 0.01$).

Mean follow up: in the group A only 4 re-treatment. The PAD test in the dry patients was positive in 2 patients (however satisfied), unchanged in the others The urgency reducede/improved in 42 patients

DISCUSSION

In the our experience the pelvic floor muscle rehabilitation is an effective treatment for the urinary incontinence (2) (3) . We examined the parameters of the patients before the treatment: the motivation of the patient, the menopause and and the weakness of the fibrous nucleus center represent the variables that affected the outcomes (the difference was statistically significant between the 2 groups). The PC test resulted a not very reliable fro evaluating the outcomes, also at distance of time, while the endurance allows an optimal appraisal. The reason probably depends on the weakness of the pelvic muscular support caused by the menopause, specially for a long time, that benefits by the pelvic floor muscle rehabilitation

CONCLUSIONS

The selection of the patients susceptible of the the pelvic floor muscle rehabilitation allows to eliminate the patients who will not benefit of the treatment, with optimization of the resources. A careful diagnosis and evaluation of the parameter before the treatment allows to reach this goal.

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Was the Declaration of Helsinki followed?	**Yes**
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