

## INTENSIVE PELVIC FLOOR REHABILITATION IN FEMALE URINARY INCONTINENCE: 10 YEARS LATER

### Hypothesis / aims of study

Despite the usefulness of intensive pelvic floor rehabilitation (PFR) in the treatment of urinary incontinence (UI) is demonstrated, in medical literature there are no agreeing data about its long term effectiveness. Some studies demonstrate the maintenance of the rehabilitation results, in particular in the treatment of stress urinary incontinence (SUI), whereas more recent researches focus on the symptoms persistence in 75% of the cases. The aim of this follow-up study is to assess PFR results 10 years after an intensive PFR program.

### Study design, materials and methods

202 women affected by UI and with no major diseases have been involved in this follow-up study; they received as out-patients intensive PFR treatment in 1996 and in 1997. The diagnostic examination before the treatment consisted of a clinical evaluation with urodynamic exam. The intensive PFR included specific pelvic floor exercises, biofeedback, and functional electrical stimulation variously associated. Domiciliary self training was recommended too. As far as this follow-up study is concerned, the patients have been contacted 10 years later by telephone and they have been asked to answer a questionnaire. The questionnaire has been intentionally built up in order to assess both the uro-gyneacological changes which have taken place during the 10 years following the intensive treatment, and the present situation evaluated from the patient's point of view. A specific set of questions has been conceived in order to investigate the symptom changes immediately after the intensive PFR and the self training prosecution; patients have also filled in the ICIQ-UI short form (Italian version) and they have been requested to answer a set of questions that had already been asked during the first diagnostic assessment, before the treatment. The data collected have been worked out by means of variance analysis, the Kruskal Wallis test and the Mann-Whitney U.

### Results

Only 153 (75.74%) out of the 202 women treated 10 years ago have taken part to the follow-up study. Of the 49 (24.26%) patients who did not participate to this study, 7 (3.46%) are dead, 5 (2.48%) were not interested in answering, 4 (1.98%) were not able to answer because of major illnesses, and 33 (16.34%) were not found. During the 10 years between the end of the intensive PFR and this follow-up evaluation, 25 women (16.34%) have been submitted to anti-incontinence surgery, and 12 (7.80%) have undergone a pelvic surgery due to other diseases. Only one woman has had another delivery. As far as the symptom changes after the therapy are concerned, 128 (84.20%) patients have reported an improvement in the immediate post-treatment period. 94 (63.10%) of the patients have declared they have continued the self training, doing pelvic floor exercises once a day or more, during a period from some months to some years; only 20 (12.99%) to 94 continue nowadays, and 4 (2.61%) actually make use of anticholinergic drugs. The statistical analysis highlights a significant difference related to age as regards the frequency of the selftraining after the end of the therapy (variance analysis  $p=0.0371$ ; Kruskal Wallis test  $p=0.0371$ ). The patients who have regularly carried out the self therapy more than once a day are in fact younger than those who have practiced it only rarely or have stopped it at all. Besides, if the situation is considered at the light of the present self training frequency, it appears that the number of pads used daily is closely connected (Kruskal Wallis test,  $p=0.0419$ ) with the frequency of self training, since a high number of pads correlate with a constant self treatment.

### Interpretation of results

Rehabilitation is able to obtain short term significant improvements of the urinary symptoms; 10 years later such symptom improvements are not preserved and this fact is closely related to the small amount of patients (12.99%) that have regularly continued the self training after the end of the intensive treatment. Patients that have regularly kept doing the exercises also make use of a great number of pads in the course of the day. The reason for this is that the women who suffer from a lighter – and thus less disabling - symptomatology, do the self training only rarely. Besides, the women who have continued exercising are younger than those who have stopped it immediately after the end of the intensive PFR. This fact highlights how difficult it is for the patients to carry out an active self treatment at home.

### Concluding message

Long term effects after intensive PFR in women with UI are not maintained because of the little number of patients that carried on the self training.

### References

1. Obstet Gynecol (1996) 87; 261-265.
2. BMJ (2005) 330; 337.

<b>Specify source of funding or grant</b>	<b>NONE</b>
<b>Is this a clinical trial?</b>	<b>No</b>
<b>What were the subjects in the study?</b>	<b>HUMAN</b>
<b>Was this study approved by an ethics committee?</b>	<b>No</b>
<b>This study did not require eithics committee approval because</b>	<b>We don't need the ethical committee approval for this kind of study</b>
<b>Was the Declaration of Helsinki followed?</b>	<b>Yes</b>
<b>Was informed consent obtained from the patients?</b>	<b>Yes</b>