

POSTURAL CONTROL REHABILITATION PROGRAM ON FOAM SURFACE FOR WOMEN WITH SUI

Hypothesis / aims of study

This is the first pilot study that is conducted to assess the effect of a supervised rehabilitation program with foam surface on the evolution of urinary symptoms, emotional impact of incontinence and discomfort in activities of daily life (ADL), in stress urinary incontinent (SUI) women

Study design, materials and methods

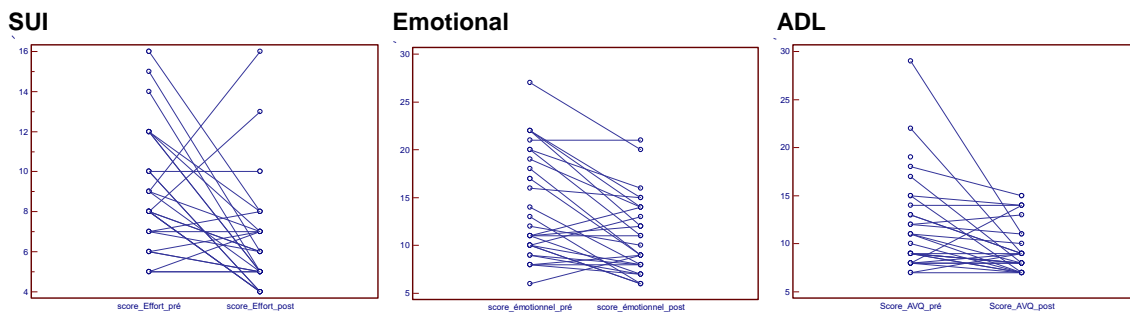
32 women with SUI received a supervised postural control exercises program on foam surface. All subject filled out a free and informed consent for biomedical research according the French Code for public health.

We used urinary symptom profile questionnaire and the French quality of life contilife questionnaire in addition to visual analog scales evaluation for the patient global impression. The questionnaires were collected before starting the protocol and immediately after the last session of the protocol

After initial assessment and examination, information about their pathologies was given. Exercises on foam surface were instructed by a physiotherapist at the first session. A video monitoring containing the 3 different exercises were given. Our protocol consisted of 15 days home program of 15 minutes exercises per day on foam surface

Results

The SUI components were significantly reduced from the beginning to the end of the protocol ($p=0.0007$). We observed an improvement in the emotional impact of incontinence ($p<0.0001$) and discomfort in ADL ($p=0.0032$).



Interpretation of results

Pollock defined Postural control as the ability to maintain, restore or achieve a balanced situation in a posture or during an activity. Lack of postural control has been described as a factor influencing incontinence (1). Smith and Madill reported an pelvic floor motor control impairment in women with SUI. Studies have shown that foam surface rehabilitation programs improve postural control better than the same exercises on stable soil (2). During exercises on the foam surface, there is a specific reflexive activity of the pelvic stabilizers involved in continence mechanisms (3). A postural control rehabilitation program on foam surface could favor a recruitment of these mechanisms during the postural disturbances in static or dynamic situations.

According to the Cochrane Herderschee & Hay-Smith 2013 review, biofeedback associated with isolated PFM training permits respective improvement rates of 86 % in SUI and only PFM training permits improvement rates of 76 %. These levels of improvement are relatively comparable to those of our study. Indeed, 78% of women in our study reported improvement or cure after protocol with both a reduction of symptoms and improvement in quality of life, despite a brief management of 15 days only. 30 continued at home the rehabilitation program, of which 22 regularly (68.75%). At last, only two patients would not recommend this protocol, which makes a recommendation rate to a friend of 93.75%.

This rehabilitation program is also a good way for therapists to induce change in the patient lifestyle, and promote the benefit of moderately intense physical activities including balance training. The technique must be supervised and controlled by the physiotherapist, but the therapist training time with his patient is not superior to conventional PFM training. This continence training program is interesting in term of cost and is easily accessible to our patients

Concluding message

Postural control rehabilitation exercises with foam surface can be a complementary technique in women with SUI. We observed a decrease in SUI components ($p=0.0007$), an improvement in the emotional impact of incontinence ($p<0.0001$) and discomfort in ADL ($p=0.0032$). It would be interesting to assess this method on a larger population sample as a complementary way of rehabilitation for women's SUI, including pad test, or standardized cough test or voiding diary and objective postural control assessment

References

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3. Hirase T, Inokuchi S, Matsusaka N, Okita M. Effects of abalance training program using a foamrubber pad in community-based older adults: a randomized controlled trial. J Geriatr PhysTher. 2015;38(2):62-70

Disclosures

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