

Postural control rehabilitation program on foam surface for women with SUI

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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.

Evaluation:

Survey: Contilife + USP / VAS + PGI

Rehabilitation program:

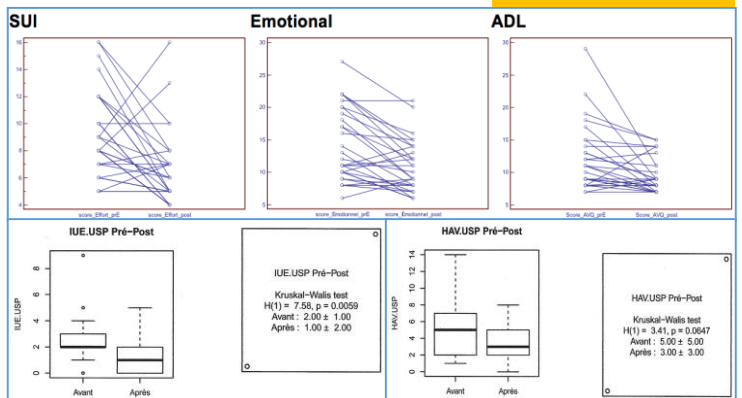
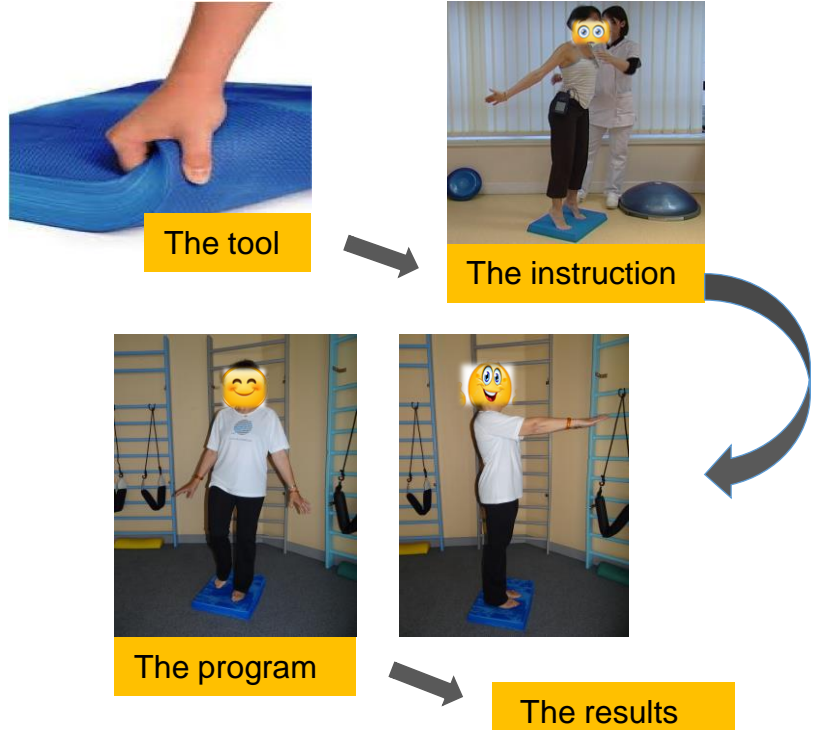
1. Initial assessment, information & examination.
2. Exercises on foam surface instructed by a physiotherapist (one session)
3. Video monitoring containing the 3 different exercises were given.
4. Protocol: 15 days home program of 15 minutes exercises per day on foam surface.

Results

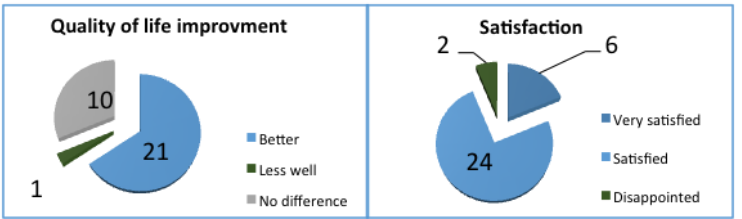
The SUI components were significantly reduced from the beginning to the end of the protocol ($p=0.0007$). We observed an improvement in the emotional impact of incontinence ($p<0.0001$) and discomfort in ADL ($p=0.0032$).

Interpretation of results

Lack of postural control has been described as a factor influencing incontinence (1). Studies have shown that foam surface rehabilitation programs improve postural control (2). Standing on foam surface with open or closed eyes improve reflexive activity of TrA & PFM (3, 4). We hypothesize that a postural control rehabilitation program on foam surface could favor a recruitment of continence mechanisms during the postural disturbances in static or dynamic situations. According to the Cochrane Herderschee & Hay-Smith 2013 review, the 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 QoL, despite a brief management of 15 days only. 30 continued at home the program, of which 22 regularly (68.75%). At last, only two patients would not recommend this protocol to a friend. This rehabilitation program is also a good way for therapists to induce change in the patient lifestyle, and promote the benefit of 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.



	Before	After	Difference	p value
ADL discomfort	11.969	9.469	-2.5	$p=0.0032$
SUI	9.156	6.656	-2.5	$P=0.0007$
Emotional	13.938	10.687	-3.25	$P<0.0001$
Self image	14.344	11.469	-2.875	$P=0.0009$
Global score	49.407	38.281	-11.126	



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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.