

EFFECTIVENESS OF HYPOPRESSIVE EXERCISES IN WOMEN WITH PELVIC FLOOR DYSFUNCTION: A SINGLE-BLINDED RANDOMIZED CLINICAL TRIAL FOLLOWED BY A QUALITATIVE RESEARCH.

Hypothesis / aims of study

Hypopressive exercises have emerged as a conservative treatment option for pelvic floor dysfunctions. These exercises have the purpose to strengthen pelvic floor and abdominal muscles through described postures and a special breathing manoeuvre.

The goal to this study was to compare three pelvic-perineal physiotherapy treatment approaches, based on pelvic floor muscle training (PFMT) vs hypopressive exercises vs a combination of both. The treatments effectiveness was assessed through the improvement of quality of life and with the increase in pelvic floor muscles strength. Furthermore, it was an aim to know the adherence experience of women about home-based exercises 6 months after the end of the treatment.

Study design, materials and methods

This was a single-centre, randomised, simple-blinded, 3-armed parallel group clinical trial followed by a quality study consisted on semi-structured individual and group interviews since a phenomenology perspective.

Ninety-four women with pelvic floor dysfunction were randomly assigned to 8 weeks of either direct PFMT (n= 32), hypopressive exercises (n= 31) or both (n= 31). Sample size was calculated to detect a difference of 10 points in the change of quality of life between treatments assuming that the average change in the reference group (PFMT group) is 25 points and the standard deviation of the change is 20 points, with a 80% power.

All interventions were carried out by the same physiotherapist, were individually, and face-to-face in each group. In the direct PFMT, pelvic floor muscles exercises were performed and guided through vaginal palpation and intravaginal biofeedback. In the hypopressive exercises group women were instructed in the thirty-three hypopressive exercises described by Dr. Caufriez, the developer of the Hypopressive Abdominal Gymnastics. In the third group, participants received a direct PFMT and were trained in 10 to 15 hypopressive exercises. The three groups received the same educational strategy and were instructed in the knack manoeuvre. For the qualitative study, thirty-one women were interviewed. The interviews were recorded, transcribed manually, and thematic analysis was conducted.

The main outcomes were pelvic floor dysfunction symptoms (Pelvic Floor Distress Inventory Short Form (PFDI-20)) and quality of life (Pelvic Floor Impact Questionnaire Short Form (PFIQ-7)). The secondary outcomes were the pelvic floor muscles function (strength, basal tone, neuromuscular activity, and endurance), the adherence to exercise at home, and the qualitative interviews analyses. Five follow-up visits were scheduled: before the intervention, shortly after the completion of the treatment (A1), and three, six, and 12 months after A1.

Results

The women in the three intervention groups improved their symptoms descending 24.41-41.70 points according to PFDI-20, their quality of life in 12.21-26.69 points based on PFIQ-7 punctuation, and increased their PFM strength in 7.10-10.12 cmH₂O. Moreover, improvements were maintained after 3, 6 and 12 months after intervention. The adherence to exercise at home reported 12 months after the end of the intervention was below 60%. There were no found differences among arms group. Women expressed that their adherence to PFM exercises depended on the exercise program itself, its efficacy, the personal experiences about the exercises, intrinsic factors of the person, and on extrinsic factors.

Interpretation of results

As we are aware, this is the first research in the pelvic perineal physical therapy field that carry out a mixed study with a sequential explanatory design. Moreover, we have tested the efficacy of a physical therapy treatment based on hypopressive alone, or joined with PFMT, in order to know the real efficacy of these popular exercises in the treatment of women with pelvic floor dysfunction. Although the results have been positive for the hypopressive intervention, cautions must be taken. Firstly, the three groups have received the same lifestyle advice, which has defined by itself helpful in the symptoms control of mild pelvic floor dysfunction. Second, all women were instructed in the knack manoeuvre during perceived intra-abdominal pressures increase, which have also been reported as an effective trick to minimize urinary leakage. Thus, the hypopressive exercises could provide sense of pelvic floor muscles elevation, but without giving a real awareness of pelvic floor muscle contraction, which would be required for example to perform the knack manoeuvre correctly. This fact could suppose hypopressive exercises as an insufficient treatment for women who are unable to produce a conscious movement of pelvic floor muscles.

Concluding message

Individual physiotherapy treatment based on PFMT or on hypopressive exercises is effective in the symptoms management and in the improvement of pelvic floor muscles strength in women with different combinations of mild pelvic floor dysfunction, as included stress or mixed urinary incontinence, anal incontinence and/or pelvic organ prolapse in grades I-II according to Pelvic Organ Prolapse Quantification Scheme. Combining both treatments does not seem to improve results. Effective perceived interventions and easy exercises suitable for the daily life integration, would enhance therapeutic adherence.

Disclosures

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