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PELVIC FLOOR MUSCLE TRAINING VERSUS HIPOPRESSIVE TECHNIC: PREVENTIVE AND CONSERVATIVE TREATMENTE OF PELVIC FLOOR DISFUNCTIONS ASSESSMENT THROUGH OF THE ELECTROMYOGRAPHY BIOFEEDBACK

The pelvic floor dysfunctions (DPF) did not directly put people's lives at risk, but are elements leading to social exclusion. Its main etiological factor to muscle dysfunction.

We can see that longevity is increasing gradually the prevalence of DPF, which makes these dysfunctions a major public health problem.

The conservative and preventive therapy for the DPF is performed using technics that aim at strengthening and maintaining the functionality of the pelvic floor muscles (PFM), with the pelvic floor muscles training(PFMT) and hipopressive gymnastics (HG) and can evaluate the myoelectrical activation the PFM through electromyographic biofeedback (EMG).

Hypothesis / aims of study

Compare the effects of PFMT and the HG on the PFM by electromyographic biofeedback and verify possible improvement of the functions of the PFM with the use of these technics.

Study design, materials and methods

This was a non-controlled clinical trial from March 2008 to June 2008 with 8 women volunteers, healthy, without urinary loss, which had risk factors, with an average and standard deviation (SD) age of 26,5 ± 5,57. Were excluded from the study women with urinary incontinence and / or fecal, genitals dystopias and sexual dysfunction.

They were divided into two groups and held 10 sessions of physiotherapy : Group 1 = Pelvic Floor muscle training (PFMT)(Bo,1999) and Group 2 = Hypopressive Gymnastics (HG) (Caufriez, 1998).

The following data were collected before and after the intervention: degree muscle contraction of PFM, through the functional assessment of the pelvic floor (FAPF) (Ortiz,2004), and electromyographic activation of PFM, through electromyographic biofeedback.

Results

At FAPF, before and after intervention, it can see an increase in the strength and function the PFM of 37% in group 1 and 70% in group 2. The comparison of increasing strength and function of the maps between the two groups at the end of treatment, showed no statistical significance.

The average base line in µV, before and after the intervention, increased by 4% in group 1 and 55% in group 2, but both without statistical significance.

The average values of maximum voluntary contraction (MVC) in µV in group 1 and 2, at the beginning and end of treatment, increased 38% and 96% respectively, without significance between the two groups.

The average to sustain in µV at the beginning and end of treatment, increased 60% in group 1 and 94% in group 2, but was not significant between the groups.

Comparing the number of MVC carried out in 15 seconds, it can see an increase in the number of MVC in group 1 and 2 of 17% and 27% respectively, but only the group 1 received statistical significance with $p \leq 0,05$.

The time to sustain in seconds, or the time at which the contraction remains PFM symmetrical, decreased 4% in group 1 and increased 70% in group 2, $p \leq 0008$ to the end of the intervention.

Comparing the average working abdominal muscles activation (AM), it observed that the group 1 had a decrease of approximately 28% in the abdominal activation muscles, while group 2 had a decrease of 15% in the activation of these muscles, but without significance before and after intervention between groups.

Interpretation of results

Concluding message

This study concluded that the PFMT represent an effective modality of assistance for the recruitment of phasic fiber, therefore, increases the peaks of MVC, and HG the technic is effective for the recruitment a tonic fiber, because increases the time to sustain the contraction of the PFM.

We conclude that the combination of these technics important to achieve greater activation of any component of the pelvic floor muscle and pelvic abdominal-content, so that occurs a increase in voluntary contraction fast and slow, not only to improving muscle strength, but the functionality PFM on the mechanism of continence.

References

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Is this a Randomised Controlled Trial (RCT)?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**Yes**
Specify Name of Ethics Committee	**Presidente Vargas Hospital - Maternal and child Hospital - Porto Alegre - Rio Grande do Sul - Brasil**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**