

CO-CONTRACTION OF THE ABDOMINAL MUSCLES AND PELVIC FLOOR MUSCLES IN URINARY CONTINENCE

Hypothesis / aims of study

Urinary Incontinence (UI) is defined as involuntary urine loss, has overwhelming consequences for the woman, because is often causes physical, psychological and social impairments reflecting negatively on their quality of life. With this, the UI is a public health issue due to the high prevalence of up to 49.5% depending on the population studied and the criteria used for diagnosis. In the United States, it was estimated in 2004 an expense of over 19.5 billion dollars. Some studies show the relationship between the muscles of the pelvic floor, which actively participate in the mechanisms of urinary continence with co-contraction of abdominal muscles and the pelvic floor muscles (PFM). Thus, it is important for the physiotherapist to understand the important relationship of the mechanisms that promote urinary continence, including the role of the abdominal muscles. The aim of this study is to perform a literature review of the papers published in recent years that relates to pelvic floor muscle contraction associated with contraction of the abdominal muscles.

Study design, materials and methods

Literature review for the last years of articles was made entirely in the database of the National Center for Biotechnology Information (NCBI - PubMed) and SCIELO site. The following terms were used: "Continence", "Abdominal Muscles", "Pelvic Floor Muscles" and "Woman".

Results

It was found 178 articles. Of these, 24.7% (44) were related to isolated contraction of the PFM and 4.5% (8) to the associated contraction of abdominal muscles and PFM which is the aim of research. Considering these 4.5% (8) as total articles studied, 25% (2) was a comparison among these continents and incontinent women, 25% (2) only women with UI, 37.5% (3) with continents women and 12.5 (1) literature review. Regarding the publication year, 37.5% (3) of articles found are considered current, with subsequent publication to 2009 and 62.5% in the year preceding the 2009 publication.

Interpretation of results

The co-contraction of the abdominal muscles contribute to generate power for the contraction of the PFM. Some researchers have begun to investigate these relationships in more detail. PFM muscles are activated during abdominal muscle contractions and the reverse is also true, ie, the abdominal muscles are activated during contractions PFM. Likewise, researchers report that for women continents, can not fully contract the PFM without contracting the abdominal muscles. In a study of women who were well-trained to perform the contractions of PFM in isolation, they were unable to make the maximum contraction of the PFM without increasing the electromyography activity in the lower portion of the rectus abdominis muscle. In general, the study found show that there is co-contraction of the abdominal muscles and the PFM.

Concluding message

Studies on the associated contraction of the abdominal muscles and the muscles of the PFM are scarce. However, it might be proven their participation for the maintenance of urinary continence, therefore, favors treatment for UI and offers important tool for physicaltherapy in the treatment of women with UI. And consistent with current strategies for the treatment of UI it is important to note that there is a possibility to create alternative solutions of great value for clinical practice.

References

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Disclosures

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