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EVALUATION OF THE POTENTIAL MYOELECTRIC ACTIVATION AND THE FUNCTION OF THE PELVIC FLOOR, QUALITY OF LIFE AND SEXUAL FUNCTION IN CLIMACTERIC WOMEN WITH AND WITHOUT DYSPAREUNIA

Hypothesis / aims of study

The changes of the pelvic floor during climacteric are a result of the aging process and hormonal decline, which may result several forms of sexual dysfunction. [1] Female sexual dysfunction (FSD) is a multifactorial problem, which can affect 20-76% of women.[2,3] The dyspareunia (pain during intercourse) is among the most common sexual dysfunction in climacteric women. The conduct in the evaluation of postmenopausal dyspareunia, as in all cases of dyspareunia, requires a detailed history to determine possible contributions and a physical examination directed to enable appropriate treatment. The aim of the study was to evaluate the potential of myoelectric activation and the function of the pelvic floor, quality of life and sexual function in climacteric women with and without dyspareunia. Our hypothesis was that resting muscle activity, sexual function and quality of life would be compromised in the presence of dyspareunia in peri and postmenopausal women.

Study design, materials and methods

This is a cross-sectional study to evaluate the electrical activity of the pelvic floor muscles, quality of life and sexual function in women in the peri and postmenopausal with and without dyspareunia in Climacteric Outpatient Clinic. The sample size was calculated using the PEPI software, version 4.0, based on the results of a pilot study including 10 participants to determine resting muscle activity in the group with (n=6) and without dyspareunia (n=4). The difference between group means was of approximately 1.8 µV (P = 0.049, Student t-test). The maximum standard deviation for group means was 1.5 µV. Therefore, the stricter criterion of 1 standard deviation was used to detect differences between the groups in the larger study. Thus, considering a significance level of 5%, a power of 90%, and an effect size of at least 1 standard deviation to detect the difference in resting muscle activity between the groups, a minimum total of 23 patients were required for each group (with or without dyspareunia). Questionnaires that were used: one to evaluate sexual function (Female Sexual Function Index) and another to evaluate the quality of life in women in peri and postmenopausal (Cervantes Scale).The assessment of pelvic floor was performed using intracavity EMG Biofeedback. The parameters analyzed were: resting muscle activity, maximal voluntary contraction (MVC) and sustained contraction.

Results

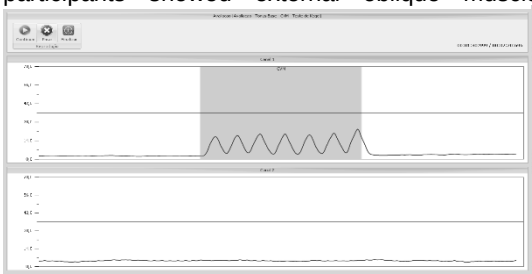
51 women were assessed in peri and postmenopausal age between 45-60 years old (mean 52.1 ± 4.9), 27 with and 24 without dyspareunia. There were statistically significant between- group differences on the Cervantes Scale (p = .009) and in all Female Sexual Function Index domains except desire and satisfaction (arousal, p = .019; lubrication, p = .030; orgasm, p =.032; pain, p < .001; desire,p = .061; satisfaction, p = .081).

There were no statistically significant difference between resting muscle activity, maximal voluntary contraction and sustained contraction between women with and without dyspareunia.

Interpretation of results

Women with dyspareunia experience worse quality of life and less satisfactory sexual function as compared with women without dyspareunia.

There was also a functional and dysfunctional assessment. The pelvic floor was defined as “dysfunctional” or “functional” according to the figures 1, 2. In the analysis of the pelvic floor it was observed that 67% was dysfunctional and 58% of the participants showed external oblique muscle activation during the pelvic floor contraction in the assessment.



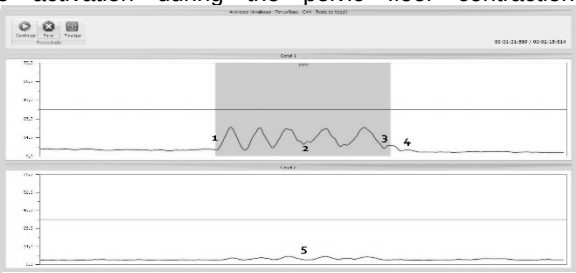


Figure 1. Analysis of functional pelvic floor EMG trace during maximum voluntary contraction.Figure 2. Analysis of dysfunctional pelvic floor EMG trace during maximum voluntary contraction. 1– Delayed upstroke; 2 – Absence of relaxation between contractions; 3 – Delayed downstroke; 4 – Contraction after exercise; 5 – Activation of abdominal muscles.

Concluding message

Women with dyspareunia had a worse quality of life and less satisfactory sexual function compared with women without dyspareunia. Most participants showed a dysfunctional pelvic floor, demonstrating the decreased perception of the pelvic floor in this sample. Therefore, there is a need of a physical therapy evaluation in climacteric women even without complaints of dyspareunia.

References

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Disclosures
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