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903 – Effects of resistance and combined training on quality of life, anxiety, depressive symptoms, and kinesiophobia in women with breast cancer undergoing neoadjuvant chemotherapy: a randomized clinical trial

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Introduction: Neoadjuvant chemotherapy for breast cancer aims to reduce tumor volume and enable more conservative approaches. However, this treatment is associated with declines in health-related quality of life (HRQoL), increased anxiety, depression, and fear of moving. Exercise-based interventions have been proposed as non-pharmacological strategies to mitigate these effects. Nevertheless, evidence comparing training modalities and minimal weekly exercise doses during neoadjuvant chemotherapy remains limited.

Objective: This study compared the effects of resistance training (RT), combined training (CT), and a control group (CG) on HRQoL, anxiety, depression, and kinesiophobia in women with breast cancer undergoing neoadjuvant chemotherapy.

Methods: A randomized clinical trial was conducted with 26 women with stage II or III breast cancer aged 30–70 years. Participants were randomized into three groups (RT=10, CT=8, and CG=8). The RT group performed resistance training, and the CT group performed combined training (resistance plus aerobic) once weekly for 12 weeks, while the CG received usual care. Outcomes included HRQoL, anxiety, depression, and kinesiophobia. Data were analyzed using mixed repeated-measures analysis, considering time, group, and group × time interaction. The study was Research Ethics Committee Approval (CAAE: 50717115.4.0000.5083) and registered in the Brazilian Registry of Clinical Trials (ReBEC-RBR: 16497). The study design and reporting followed the recommendations of the CONSORT Statement.

Results: No significant group × time interactions were observed for HRQoL, anxiety, depression, or kinesiophobia ($p>0.05$). However, a significant interaction was identified for the emotional well-being domain ($F=3.446$; $p=0.049$).

Conclusion: Resistance and combined training performed at a minimum weekly frequency (once per week) did not significantly modify HRQoL, anxiety, depression, or kinesiophobia over 12 weeks. However, improvement occurred in the emotional well-being domain of HRQoL in women with breast cancer undergoing neoadjuvant chemotherapy.

Ethics: Research Ethics Committee Approval (CAAE 50717115.4.0000.5083).

Registry: Brazilian Registry of Clinical Trials (ReBEC): RBR-16497.

Keywords: breast neoplasms; exercise therapy; quality of life; anxiety; neoadjuvant therapy.