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Contribution ID: **200** Type: **1 - Scientific Poster**

Immediate changes in fatigue, pain, dizziness, nausea, and mood after supervised exercise in patients with breast cancer receiving neoadjuvant chemotherapy

Thursday 23 July 2026 14:55 (20 minutes)

Background: Exercise during cancer treatment can reduce symptom burden over time, but the immediate effects of single exercise sessions are unclear. This study examined immediate changes in treatment-related side effects – fatigue, nausea, dizziness, pain, and mood – following exercise in patients with breast cancer undergoing neoadjuvant chemotherapy (NACT).
Methods: In this study, 28 women participating in the exercise group of the Neo-train randomized controlled trial were included. The intervention consisted of supervised high-intensity interval training and progressive resistance training 3 times per week during NACT. Before and after each exercise session, participants rated fatigue, nausea, dizziness, pain, and mood on 100 mm Visual Analogue Scales. Mixed linear models using all pre- and post-exercise ratings as repeated measures were performed, both unadjusted and adjusted for age and comorbidities. Subgroup analyses were conducted including only observations where participants reported pre-exercise ratings >0 mm.
Results: Participants received NACT for a median of 21 weeks (interquartile range [IQR] 18-23) and attended the exercise intervention for a median of 20 weeks (IQR 16-23). Across all sessions, exercise was associated with statistically significant immediate reductions in fatigue (-5.8 mm, 95% confidence interval [CI]: -6.8; -4.4) and pain (-1.2 mm, 95% CI: -1.8; -0.5), as well as improved mood (-5.3 mm, 95% CI: -6.4; -4.3). The subgroup analyses showed statistically significant reductions in fatigue (-7.5 mm, 95% CI: -8.8; -6.2), pain (-6.9 mm, 95% CI: -9.3; -4.5), dizziness (-6.1 mm, 95% CI: -8.8; -3.4), and nausea (-6.1 mm, 95% CI: -9.5; -2.6), and improved mood (-8.4 mm, 95% CI: -9.9; -7.0).
Conclusion: This study indicates that supervised high-intensity interval training and progressive resistance training can lead to immediate improvements in treatment-related side effects in women with breast cancer undergoing NACT.
Updated results from the full cohort of 50 exercise-group participants will be presented at the conference.

Keywords

supervised exercise, treatment-related side effects, neoadjuvant chemotherapy, breast cancer

Conflict of Interest & Ethical Approval

yes

Abstract submitters declaration

yes

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Session Classification: Poster Session