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Impact of Structured Exercise vs. Brief Counseling on Pain in Breast Cancer Survivors on Aromatase Inhibitors - The PAC-WOMAN Trial

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Purpose: Breast cancer survivors undergoing hormonal therapy with aromatase inhibitors face a significantly increased risk of developing musculoskeletal pain, leading to treatment discontinuation, greater risk of unemployment and other negative outcomes on their quality of life. While physical activity is a known strategy for symptom management, the comparative efficacy of different delivery models remains understudied. Therefore, this study compared the effects of a brief physical activity counseling intervention versus a structured exercise program on pain scores in breast cancer survivors undergoing aromatase inhibitors, enrolled in the PAC-WOMAN Trial.

Methods: This secondary analysis utilized intent-to-treat data from the PAC-WOMAN pragmatic randomized controlled trial. Participants included 110 women with hormone-receptor-positive breast cancer (Stage I-III; age 56.1 ± 7.6 years) currently treated with AIs (mean duration: 23.4 ± 20.1 months). Participants were randomized to: 1) supervised structured exercise program; 2) brief physical activity counseling; or 3) a wait-list control. The primary outcome for this analysis was the change in pain scores from baseline to 4-months post-intervention, assessed with the pain symptom subscale of the EORTC QLQ-C30, adjusted for relevant covariates.

Results: Pairwise comparisons revealed significant post-intervention differences in pain scores between the exercise group and the brief counseling group. The exercise group reported significantly lower pain scores compared to brief counseling ($p=0.001$). Conversely, the brief counseling group experienced a significant deterioration in pain symptoms over time ($p=0.026$).

Conclusions: Supervised structured exercise appears to be a better option than brief physical activity counseling for mitigating pain in breast cancer survivors undergoing aromatase inhibitors. These findings suggest that physical activity interventions targeting pain management likely require a supervised setting with specific exercise dosage prescription, rather than counseling alone.

Keywords

Exercise Oncology; Pain Management; Breast Cancer Survivors; Aromatase Inhibitors

Conflict of Interest & Ethical Approval

yes

Abstract submitters declaration

yes

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