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DOSE RESPONSE EFFECT OF EXERCISE ON FUNCTIONAL CAPACITY AND BODY COMPOSITION IN CANCER SURVIVORS.

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Introduction
Exercise is recognized as a key component of supportive care in cancer. However, adherence to exercise programs varies considerably among cancer patients, which may influence their effectiveness in improving functional capacity and body composition. Therefore, we aimed to investigate the dose–response effects of exercise on functional capacity and body composition in cancer survivors.
Methods
This interventional study included 96 cancer patients, allocated to either a 24-week structured multicomponent EX program or a usual care control (CON). The EX group (n=82) was divided into tertiles according to the amount of weekly exercise performed, compared with CON (n=14): low-EX (38 ± 17 min/week), middle-EX (64 ± 14 min/week), and high-EX (99 ± 8 min/week). Outcomes included handgrip strength, sit-to-stand test (STS), gate speed (GS), 6-minute walk test (6MWT), appendicular skeletal muscle mass index (ASMMI), fat-free mass (FFM) and fat mass (FM).
Results
Both the middle-EX (Δ = +53.0 m; $p < 0.001$) and high-EX groups (Δ = +69.9 m; $p < 0.001$) showed greater improvements in 6MWT distance compared with CON (Δ = −16.3 m). The high-EX group also demonstrated significant reductions in STS time (Δ = −1.61 s; $p = 0.016$) and GS time (Δ = −0.64 s; $p = 0.035$) compared with CON. No significant differences were observed among groups for body composition outcomes.
Conclusion
A modest amount of structured exercise improves cardiorespiratory fitness in cancer survivors, whereas higher weekly exercise volumes are required to induce meaningful gains in functional capacity.

Keywords

exercise-oncology, survivorship, cardiorrespiratory fitness, functional capacity

Conflict of Interest & Ethical Approval

yes

Abstract submitters declaration

yes

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