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Physical activity and prehabilitation in cancer patients

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Background

Low physical performance is associated with increased postoperative morbidity, mortality, and cardiopulmonary complications. Physical activity can reduce therapy-related side effects and have a positive impact on disease progression. Despite guideline recommendations of 150 minutes of moderate activity per week, many patients fail to meet these targets.

Methodology

Based on a patient survey conducted by the Comprehensive Cancer Center (CCC) at Hannover Medical School (MHH) in 2022, a concept is to be developed that promotes physical activity in pre- and rehabilitation for patients with cancer. As part of the patient survey, activity behavior was recorded (Freiburger questionnaire). The total physical activity is presented in metabolic equivalent of task (MET) hours/week and classified into three activity categories: <14 MET (too little activity), 14–29 MET (minimum requirement met), >30 MET (sufficient activity).

Results

The sample comprised 567 patients (51% male), of whom <2% were younger than 30 years, 51% were between 30 and 65 years, and 47% were older than 65 years. Overall, 59% achieved the recommended activity level of 150 minutes of moderate activity per week. Only the 30–65 age group was “sufficiently active” (32.7 ± 34.8) and was significantly more active than patients >65 years of age (23.4 ± 26.3 , $p < 0.05$). The oldest age group also showed lower sports-related activity than those <30 years of age (2.9 ± 8.2 vs. 9.4 ± 18.1 , $p < 0.05$).

Discussion

With increasing age, overall and sports-related activity decreases significantly. This results in a need for specific support and exercise programs especially for older oncology patients. Based on these findings, the Department for Rehabilitation and Sports Medicine and the Department for General, Visceral and Transplant Surgery at MHH are developing a new form of care for patients with operation-indicated carcinomas, which aims to establish app-supported physical training with personal coaching starting in the prehabilitation phase.

Keywords

Physical activity, cancer, prehabilitation, exercise program

Conflict of Interest & Ethical Approval

yes

Abstract submitters declaration

yes

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