

Effects of physical activity on the fatigue and psychologic status of cancer patients during chemotherapy

Dimeo FC, Stieglitz RD, Novelli-Fischer U, et al. Cancer 1999; 85(10):2273-2277.

Prepared by: : Dr. Robin Fainsinger

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Abstract:

Background: Fatigue is a common and often severe problem in cancer patients undergoing chemotherapy. The authors postulated that physical activity training can reduce the intensity of fatigue in this group of patients.

Methods: A group of cancer patients receiving high dose chemotherapy followed by autologous peripheral blood stem cell transplantation (training group; n = 27) followed an exercise program during hospitalization. The program was comprised of biking on an ergometer in the supine position following an interval training pattern for 30 minutes daily. Patients in the control group (n = 32) did not train. Psychologic distress was assessed at hospital admission and discharge with the Profile of Mood States and Symptom Check List 90.

Results: By the time of hospital discharge, fatigue and somatic complaints had increased significantly in the control group (P for both < 0.01) but not in the training group. Furthermore, by the time of hospital discharge, the training group had a significant improvement in several scores of psychologic distress (obsessive-compulsive traits, fear, interpersonal sensitivity, and phobic anxiety) (P value for all scores < 0.05); this outcome was not observed in the control group.

Conclusion: The current study found that aerobic exercise can reduce fatigue and improve psychologic distress in cancer patients undergoing chemotherapy.

Comments:

Strengths/uniqueness: This is a well described study demonstrating significant improvements in patients randomized to an exercise program. These patients demonstrated improvements in psychological well-being and less problems with fatigue compared to the exercise group.

Weakness: The lack of blinding and extra attention given to the treatment group is a source of major potential bias. The need for placebo and non-exercise activities for the controlled group in future studies is noted by the authors.

Relevance to Palliative Care: This study should encourage palliative group programs to ensure that they have a rehabilitation component as part of the inter-disciplinary team. Palliative care rehabilitation programs should attempt similar trials to demonstrate improvements in psychological well-being and perhaps slower increase of fatigue in palliative care patients.