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Abstract

„Evaluation of the effectiveness of a structured exercise program for the treatment of chronic fatigue in breast cancer patients“

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The influence of physical exercise was investigated in the current study. The main question was how effective a structured training program is in the treatment of cancer related fatigue, quality of life and physical capacity. Questionnaires were given to the patients at four times in point, T1 to T4. T1 and T2 dated the beginning and the end of the rehabilitation program, T3 was three and T4 six month after rehabilitation. During all specific dates patients of both groups, the control and intervention group, answered questionnaires about fatigue, quality of life, anxiety and depression and physical fitness. The patients of the intervention group also documented their use of the structured exercise program.

During the rehabilitation maximum isometric muscle force in both groups increased. This increase might be a result of better muscle coordination.

The fatigue scores of the intervention group, measured with the multidimensional fatigue inventory, significantly decreased from T1 to T4. Also reduced motivation and reduced activity significantly decreased in the intervention group from T1 to T4 (reduced motivation from $39,02 \pm 20,7$ at T1 to $21,02 \pm 18$ at T4 and reduced activity from $58,93 \pm 24,1$ at T1 to $32,01 \pm 22,1$ at T4). Also the quality of life measured with the EORTC QLQ-C30 increased significantly. A significant decrease of anxiety and depression was shown in the intervention group compared from T1 to T4, no significant changes could be shown in the control group.

Both groups showed an increase in physical fitness during rehabilitation measured with the 6 minutes walk test. The control group increased significantly in walking distance.

Conclusively it was shown that the rehabilitation program had a positive influence on quality of life and cancer related fatigue. Also the structured training program has shown a positive influence on parameters of fatigue, anxiety and depression and quality of life. Further studies should investigate the influence of physical exercise on cancer related fatigue to determine the best exercise program for patients.