Abstract: P180

6 month life-style intervention program in breast cancer patients during and after chemotherapy

Authors:
S Gebhard¹, M Haykowsky², K Esefeld¹, B Spanier¹, M Martignoni³, M Halle¹, ¹Technical University of Munich, Prevention and Sports Medicine - Munich - Germany, ²College of Nursing and Health Innovation - Arlington - United States of America, ³Hospital Rechts der Isar, Surgery - Munich - Germany,

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Background: Exercise and nutritional counseling during rehabilitation of breast cancer patients has shown to have beneficial effects on quality of life by improving fatigue symptoms and exercise capacity. However, exercise interventions during the acute phase of radiation and chemotherapy are scarce.

Methods: Between 2011 and 2016, 231 patients diagnosed with breast cancer participated in a life-style intervention program of nutritional counseling and supervised exercise training for six months. A subset of 84 patients (age 49±9 y; curative therapy approach n=77, metastasis n=7, radiation therapy at baseline n=52; Karnofsky Performance Scale (KPS) 90±5) met inclusion and exclusion criteria. Parameters of cardiopulmonary exercise testing (CPET) were compared between patients 1.) without chemotherapy, 2.) during and 3.) after chemotherapy at baseline as well as 3 and 6 months of intervention.

Results: Overall maximal exercise capacity (VO2peak) increased significantly from baseline (24.5±6.2 ml/kg/min) to 6 months (26.1±6.4 ml/kg/min; p<0.01) as was observed for maximal work load during ergometry (baseline: 122±31 Watts; 6 mo: 13±30 Watts; p<0.01). These improvements were not significantly different between groups. Patients with metastatic disease started with lower VO2peak, but improved to a similar extent as non-metastatic patients.

Conclusion: Our data reveal that exercise training improves fitness parameters in breast cancer patients independent of stage of therapy, i.e. during chemotherapy, after chemotherapy, without chemotherapy. Also patients with metastatic disease reveal similar improvements.