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# 510 - IMPLEMENTING AN EXERCISE ONCOLOGY PROGRAM FOR BREAST CANCER PATIENTS IN BRAZIL: THE MAPLE TREE CANCER ALLIANCE EXPERIENCE

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**Introduction:** Breast cancer (BC) has already been extensively studied in the field of exercise oncology, with a 300% growth rate for publications in the past 12 years, after the American Society for Sports Medicine published the first round-table for exercise in cancer survivors. However, even with numerous studies demonstrating effectiveness, there is a lack of information for health-care professionals, including breast surgeons and clinical oncologists, and also for patients and caregivers. Despite this, specialized programs and exercise professionals trained to support this population are rare, and it is not different in Brazil. Maple Tree Cancer Alliance (MTCA) is a nonprofit organization working with cancer patients since 2011 in the United States. In 2019, an international process was started, and the first unit outside the United States started operating in 2020 in Brazil. The exercise protocol developed by the MTCA includes resistance training and aerobic modalities, prescribed in a phase system, according to the kind of treatment the person is doing for cancer, and also according to cardiovascular fitness and previous experiences. Patients were followed for a period of 12–48 weeks, and assessments were done before starting, every 12 weeks. **Objective:** The aim of this study was to describe the first-year experience for MTCA in Brazil, until December 2021. **Methods:** Every patient starting the MTCA program performs an initial assessment, to get information about the disease, treatment, cardiovascular fitness, and corporal measures. The assessments are repeated in a 12-week interval. Parameters like weight, body mass index (BMI), body weight (with bioimpedance), muscle strength, flexibility, cardiovascular fitness, and postural evaluation are scored and compared with previous analysis during the patient's participation. **Results:** During the first year of operating in Brazil, the MTCA performed 107 physical assessments. Of these, 86 were BC patients, either during (chemotherapy, radiotherapy, or hormone therapy) or post-treatment (80.37%). In all, 20 patients did not continue the exercise program (23.25%), and there were 2 deaths (2.32% — all patients in this group started the program as metastatic BC). The mean age was 50.69 years old (26–79 years old). We observed in the BC patients, as reported in the literature, higher rates of overweight and obesity: mean BMI was 28.57 kg/m<sup>2</sup> (ranging from 19.1 to 47 kg/m<sup>2</sup>). Overweight and obese patients correspond to 75.6% according to the first assessment measure. Comparing initial assessment and the first reassessment, 40 patients have completed the first phase of MTCA training, 45% lost weight, 47.5% gained, and 7.5% were stable. The mean weight gain was 3.49 kg and the mean weight loss was 1.9 kg. Treatment phase was not considered in this observation. We also observed some resistance for health-care professionals in authorizing the participation in exercise for metastatic patients. It is important to score that the same benefits are seen in this group of patients, especially with regard to treatment side effects, and we already have a recently published guideline for exercise in bone metastasis scenery. **Conclusion:** Many challenges were faced in the first-year experience for MTCA in Brazil. Despite legal bureaucracy, engaging patients, clinicians, and breast surgeons in exercise oncology is certainly difficult, especially for metastatic patients. We could observe a high rate of BC patients and survivors in overweight and obesity, and with resistance to nutritional education and to change their life habits. It is important that health-care professionals encourage their patients to participate in exercise protocols, but also in nutritional education. Patient reports are unanimous for a better quality of life and less side effects after engaging in the exercise program. As an ongoing work, we hope to decrease the dropout rate and improve weight loss and also deliver the standard exercise program from MTCA to other cities in Brazil.