

Efficacy of a specific program of adapted physical activity in breast cancer survivors: a 5-year single center experience in Florence

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Physical activity has been proposed as a nonpharmacological intervention to improve the quality of life in breast cancer survivors. Breast cancer is the most commonly diagnosed malignancy among women worldwide. Recently, earlier detection and advances in therapies have substantially improved the survival rate of breast cancer patients, many of which will have a normal life expectancy. However, cancer treatments can produce negative short- and/or long-term physical and psychological effects (i.e. shoulder and arm decreased mobility, pain, mood disturbance), which heavily contribute to the reduction of life quality. In previous study, we carefully described the exercise methodology of a planned and personalized program of adapted physical activity (APA) demonstrating its efficacy in reducing the shoulder-arm complications and improving the quality of life in breast cancer survivors (1). In the present study, we evaluated a higher numbers of breast cancer survivors and a long-time follow up to verify the effectiveness of our protocol. For this purpose, 140 breast cancer survivors (mean age 56.8±10.2) were recruited by Cancer Rehabilitation Center in Florence between February 2009 and November 2014. The women were evaluated at the baseline and after the 8-week physical activity. The anthropometric parameters were measured and the subjects underwent a battery of fitness tests to assess shoulder-arm mobility and range of motion (ROM), and back flexibility (sit and reach test). All participants filled out numerical rating scale and Short-Form 12 questionnaires to quantify the pain intensity to back and the shoulder of the operated arm, and to assess the quality of life, respectively. The evaluation of shoulder-arm mobility and self-reported questionnaire data revealed a statistically significant improvement after completion of our specific exercise program. After one year from APA, participants were subjected again to this evaluation protocol. Moreover, to evaluate the APA long-term effects (i.e. physically active lifestyle and shoulder-arm disability), a structured questionnaire was administered to all participants.

References

- [1] Mirandola et al. (2014) Evidence for adapted physical activity as an effective intervention for upper limb mobility and quality of life in breast cancer survivors. *JPAH* 11, 814-22.

Keywords

Adapted physical activity; breast cancer survivors; quality of life.