



Effects of resistance training during the chemotherapy treatment on muscle performance

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Abstract:

Cancer is a public health problem, specially in developing countries. In the next decades the impact of cancer may correspond to more than 20 million of new cases. Among the main existing cases, we can point out the breast cancer, the one that affects and kills more women in the entire world. Both in developed countries and in developing ones. In 2018, nearly 18.1 million of new cases were highest rates can be found in Europe and North America. The lowest rates are found in eastern Asia, with breast cancer accounting 11.6% of new cases in 2018. The number of studies involving patients with breast cancer and physical activity has been increasing over the years; however, it is not yet clear the effects of chemotherapy on measures of muscle performance in the course of treatment. We evaluated women in the treatment of breast cancer with apparently healthy women. We made measurements of muscular performance by means of hand-grip strength and through the isokinetic dynamometer. The total work (TW) were evaluated 1 series of 20 maximum repetition, concentric phase at 180°/s, and eccentric phase 300/s, with the aim of assessing TW and PT of fatigue (IF during concentric action and 300°/s in eccentric, with a 2-minute recovery interval between sets. The results did not show any significant difference between groups TW and IF a 180° s-1 between the groups.. Women under the treatment for breast cancer subjected to chemotherapy do not shown any differences in the total work in compared with women during treatment.

Biography:

Vitor Alves Marques is physical education by profession, he holds licenciaded in Physical Education and currently pursuing a doctor in Health Science at the Federal University of Goiás. Vitor is master in Health Science at the Federal University of Goiás, and its dissertation is about the effects of chemotherapy treatment on muscle perfor-



mance in women with breast cancer in the year 2018. He is member the Laboratory of Physiology of the Exercise and Nutrition and Healthy at the Federal University of Goiás (LAFINS/UFG) and also is member the Laboratory of Analyzes of Human Movimento (LAMOVIH/UFG). He has approved abstract in ACSM's 66th Annual Meeting, with the theme muscle performance in women during chemotherapy treatment with breast cancer.

Publication of speakers:

- 1) Bray Freddie, Ferlay Jacques, Soerjomataram Isabelle, Siegel R.L, Torre L.A, Jemal Ahmendi. Global Cancer Statistics 2018: Globocan Estimates of Incidence and Mortality Worldwide for 36 Cancers in 185 Countries.
- 2) Klassen O, Schmidt ME, Ulrich CM, Schneeweiss A, Pothoff K, Steindorf K, et al. Muscle strength in breast cancer patients receiving different treatment regimes. *J Cachexia Sarcopenia Muscle*. 2017;8(2):305–16.
- 3) Vieira CA, Battaglini CL, Vieira A, Vogt MFB, Oliveira RJ, Bottaro M. Effects of Rest Interval on Strength Recovery in Breast Cancer Survivors Effects of Rest Interval on Strength Recovery in Breast Cancer Survivors. *Int Sport Med*. 2015.

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