Early screeaning of sarcopenia and body composition analysis in patients with breast cancer

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Background & Aims: Breast cancer (BC) is the most frequently diagnosed carcinoma among females. The aim of this study was to evaluate the prevalence of sarcopenia in a sample of women with BC.

Methods: The study was conducted in adult pre- and postmenopausal women with BC, with stage 0-III BC, who were surgery candidates receiving adjuvant/neoadjuvant therapy for BC. The patients were recruited at the Department of Clinical Medicine and Surgery, Federico II University, Naples, Italy. A control group matched for age, body weight and BMI was randomly selected. Anthropometry, bioimpedance analysis, and handgrip strength (HGS) test were evaluated to detect sarcopenia.

Results: A group of 109 BC women (age 49.3±11.0 years and BMI of 24.4 ± 3.0 kg/m^2) and 80 control with similar characteristics were analyzed.

We found that 11(10%) BC patients were sarcopenic; none of the subjects in the control group had sarcopenia.

By comparing 11 BC patients with sarcopenia with 98 BC patients without sarcopenia and the control, we observed that the body weight, quantitative variables of body composition and HGS of sarcopenic BC patients were significantly lower than those of both nonsarcopenic BC patients and the control group ($p<0.005$). The phase angle value was lower in sarcopenic patients than in the control group respectively (5.2 ± 0.2 vs 5.7 ± 0.6 $p<0.005$).

Conclusion: Considering the prevalence of sarcopenia observed in BC patients our findings suggest that the evaluation of body composition and early screening of sarcopenia could be a useful to integrate into cancer's patient management.