

암재활

게시일시 및 장소 : 10 월 18 일(금) 08:30-12:20 Room G(3F)

질의응답 일시 및 장소 : 10 월 18 일(금) 10:00-10:45 Room G(3F)

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Changes in muscle mass and grip strength after breast cancer surgery

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Recently interest in sarcopenia has increased in cancer survivors as well as that in cachexia of terminal cancer patients. Sarcopenia did not simply mean a decrease in muscle mass, but has recently been considered to impair muscle strength and physical function. Muscle strength is usually assessed by the hand grip strength (HGS), and skeletal muscle mass is measured using dual energy X-ray absorptiometry and bioimpedance. Previous studies have reported that muscle strength and muscle mass in breast cancer survivors are associated with quality of life. However, since there were few related studies, the purpose of this study was to evaluate the muscle strength and hand grip strength of patients with breast cancer survivors by periodic evaluation

The subjects were breast cancer survivors referred to the Department of Physical Medicine and Rehabilitation after surgery. Patients with metastatic terminal cancer or bilateral breast cancer surgery were excluded. Muscle strength was measured by HGS, and skeletal muscle mass was measured using bioimpedance. Before chemotherapy, and at 3 and 6 months after chemotherapy, tests were performed and the significance of change was analyzed using the Friedman test.

At the baseline evaluation, the age of the patient was 53.8 ± 10.9 years old, height 157.3 ± 4.4 cm, body weight 57.6 ± 6.2 kg and BMI 23.3 ± 2.5 kg/cm². The muscle mass was 19.7 ± 1.2 kg and the skeletal muscle index was 8.0 ± 0.5 kg/cm². HGS was 22.7 ± 3.0 kg in the operated side and 21.0 ± 2.6 kg in the non-operated side. Muscle mass was improved until 3 months of follow-up and remained similar thereafter. Meanwhile, until 3 months follow-up, there was a significant change of HGS in both operated and non-operated side. However, HGS of both sides decreased after 3 months follow-up.

In conclusion, muscle mass was recovered for the first 3 months after surgery, but it remained with continued chemotherapy and radiotherapy. Although muscle strength also recovered early in the postoperative period, it was not maintained as long as the cancer treatment was continued. From this study, we could understand the changes of patient's physical status by periodic muscle mass and muscle strength measurements. And, in order to continuously improve the muscle mass and strength, proper exercise and nutrition support should be necessary according to treatment phase.