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Mini Review

Novel Concepts in Physical Rehabilitation in Oncology

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Mini Review

Therapeutic evolutions in oncological rehabilitation have appeared with the emergence of novel concepts and techniques that may lead to a better prognosis. Considerable advances have been made in recent years, reflecting in better outcomes. One such advance is related to the treatment of edema, lymphedema, fibrosis, and pain [1]. Novel techniques and concepts have been developed that enable the normalization or near normalization of lymphedema, including clinical stage III (elephantiasis) [1]. Such techniques have therefore led to a substantial improvement in the quality of life of affected individuals.

Novel diagnostic and therapeutic approaches that broaden the differential diagnosis and enable better adaptation to treatment have contributed to better therapeutic outcomes. Approximately 10% of patients with lymphedema have idiopathic cyclic edema. Obesity is an aggravating and triggering factor of lymphedema and should therefore be analyzed in these patients [2-5]. Approximately 50% of patients submitted to treatment for breast cancer with a physical aspect of lipedema and a body mass index (BMI) between 30 and 40 kg/m² have an altered lymphatic system, with generalized edema leading to a pattern of subclinical systemic lymphedema. In obese patients, these alterations emerge when the BMI is between 55 and 60 kg/m². Thus, there is an important difference regarding the evolution of lymphedema in these two groups of patients. Therefore, patients with a physical aspect of lipedema merit more rigid orientation regarding weight gain.

Women submitted to treatment for breast cancer involving chemotherapy have bilateral lymphedema of the lower limbs compared to a control group. Moreover, the prevalence of edema increases with the increase in weight [2]. Postoperative follow-up normally requires a multidisciplinary team, in which each member seeks the therapeutic advances of his/her specialty [6]. The more prevalent oncological surgeries generally cause injury to the lymphatic system, the result of which is the development of lymphedema. The most prevalent surgeries include those for breast cancer and gynecological cancer in women and prostate cancer in men [4]. Pain, edema, limited physical mobility and a reduction in quality of life are common among patients submitted to these surgeries.

The creation of novel manual and mechanical lymphatic therapy techniques and the adaptation of these techniques to the physiopathology of each surgical procedure offers a specific, better defined approach for the individualized treatment of each patient [6]. The use of nonelastic material (grosgrain) for compression stockings, braces and gloves enables the normalization or near normalization of all clinical stages of lymphedema, including elephantiasis [1].

The reduction in edema is associated with a reduction in pain and fibrosis, enabling gains in mobility and an improvement in quality of life. The evolution in the technique and concept have enabled these results. For all types of cancer that cause harm to the lymphatic system and result in edema, fibrosis and pain, lymphatic therapy should be the initial rehabilitative approach. The most important aspect is to identify each physio pathological process stemming from the different oncological treatments and determine the most adequate therapeutic option.

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