The Effect of Decongestive Lymphatic Therapy with Pneumatic Compression for Breast Cancer-related Lymphedema

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Background and Purpose: Many investigators measured treatment effectiveness of decongestive lymphatic therapy (DLT) combined with pneumatic compression (PC). However, most of them did not use controls. Objectives: This study aimed to investigate the effectiveness of this management using the subjects themselves as controls to minimize the influence of spontaneous change with time. Methods: Subjects with unilateral breast cancer-related lymphedema were recruited. Each subject went through a control period, an intervention period and three measurements. They were treated with DLT combined with 1-hour PC for 2 hours/session, one session/day, 5 sessions weekly for 4 weeks. The outcome measures included demographic and medical information, the severity of swelling, water composition, lymphedema-related symptoms, quality of life and subjects’ compliance. One-way repeated measures and Friedman tests were used to examine the differences among three evaluations. Results: There was no significant change in all of the measurements in the control period. Significant reductions in excess water displacement, excess circumference, excess water composition (p<0.0083) and 5 symptoms after intervention (p<0.0167). Conclusions: The use of DLT combined with PC in treating patients with lymphedema has shown positive therapeutic responses. (FJPT 2010;35(2):89-97)

Key Words: Breast cancer, Breast cancer-related lymphedema, Decongestive lymphatic therapy, Lymphedema, Pneumatic compression

Breast cancer-related lymphedema is a common complication occurs through the course of treatments for breast cancer. It is defined as arm edema in the breast cancer patient is caused by interruption of the axillary lymphatic system by surgery or

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