ORIGINAL ARTICLE

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Post mastectomy lymphedema treatment: Complex Decongestive Therapy alone and in combination with intermittent Pneumatic Compression, a Randomized Clinical Trial

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Abstract

Background: There is no cure for lymphedema secondary to breast cancer. This study was conducted to compare two treatment methods for post mastectomy lymphedema: Complex Decongestive Therapy (CDT) alone and Modified CDT (MCDT) combined with Intermittent Pneumatic Compression (IPC).

Methods: A total of 112 patients referred to lymphedema clinic of Iranian Center for Breast Cancer, were included in a randomized clinical trial. They were randomly allocated into two equal groups and received daily CDT alone or combination of MCDT with IPC. After treating in two phases, they were followed up to 3 months and edema volume changes were recorded by water displacement volumetry.

Results: There were no statistically significant differences in demographic and clinical variables between two groups. During phase I of treatment, CDT alone showed higher mean volume reduction compared to the other modality (43.1% vs. 37.5%; p = 0.036). Volume reduction by CDT alone in 3 months later was 16.9%, while the volume decreased 7.5% by MCDT plus IPC.

Conclusion: This study demonstrated that the use of CDT alone or in combination with IPC significantly reduced limb volume in post mastectomy lymphedema patients. CDT alone provided better results in both treatment phases. Further studies will help to define the role of multidisciplinary approaches in the management of post mastectomy lymphedema.

Keywords: Complex Decongestive Therapy, breast cancer, lymphedema Intermittent Pneumatic Pumps, Iran.