

ORAL PRESENTATION OP8

Effects of Complete Decongestive Therapy and Structured Exercise on Limb Circumference, Muscle Strength and Quality of Life in Individuals with Breast Cancer-Related Lymphedema: A Randomized Controlled Trial

Zaidatul Akma Mat^{1,2}, Suhaila Sohaimi³, Asfarina Zainudin¹

¹ Physiotherapy Programme, Center for Rehabilitation and Special Needs Studies, Faculty of Health Sciences, Universiti Kebangsaan Malaysia, Jalan Raja Muda Aziz, 50300 Kuala Lumpur

² Jabatan Fisioterapi, Hospital Kuala Lumpur, 50586 Jalan Pahang, Wilayah Persekutuan Kuala Lumpur

³ Unit Fisioterapi, Jabatan Perkhidmatan Pemulihan Perubatan, Hospital Canselor Tuanku Muhriz UKM, Jalan Yaakob Latif, Bandar Tun Razak, 56000 Cheras, Kuala Lumpur

ABSTRACT

Background and Objective: Breast cancer-related lymphedema (BCRL) is a common complication following breast cancer treatment that impairs upper limb function and quality of life (QoL). Although Complete Decongestive Therapy (CDT) is the standard treatment, evidence regarding the additional benefits of structured exercise remains limited. This study evaluated the effectiveness of structured exercise as an adjunct to CDT among women with BCRL. **Methods:** A randomized controlled trial was conducted involving participants diagnosed with BCRL and randomly assigned to CDT with structured exercise (experiment group [EG], n=23) or standard care (control group [CG], n=23). Participants in the EG underwent 8 weeks of CDT with 20 minutes of structured exercises whilst those in the CG received CDT only. Outcomes included limb circumference, muscle strength and Lymph-ICF-UL questionnaire. Measurements were taken at baseline, week 4, and post-intervention, week 8. Data were analysed using repeated-measures ANOVA. **Results:** Forty-six participants with mean age $\pm$ SD (58.89 $\pm$ 7.91 years) were included in the study. No significant interaction effect between group and time was found for limb circumference, QoL and muscle strength was found between groups. Both groups demonstrated improvement over the intervention period; however, participants receiving CDT combined with structured exercise showed greater reductions in limb swelling and greater improvements in functional ability and perceived QoL. **Conclusion:** Structured exercise can be safely incorporated into conventional CDT programmes and may provide additional clinical benefits for women with BCRL. These findings support its integration into routine physiotherapy rehabilitation to optimise patient outcomes.

Keywords: Breast cancer-related lymphedema, Complete Decongestive Therapy, structured exercise

Corresponding Author:

Zaidatul Akma Mat

Email: p146538@siswa.ukm.edu.my