A RANDOMIZED STUDY COMPARING MANUAL LYMPH DRAINAGE WITH SEQUENTIAL PNEUMATIC COMPRESSION FOR TREATMENT OF POSTOPERATIVE ARM LYMPHEDEMA

K. Johansson, E. Lie, C. Ekdahl, J. Lindfeldt

Department of Physical Therapy (KJ,EL,CE) and the Department of Surgery (JL), University Hospital, Lund Sweden

ABSTRACT

We compared manual lymph drainage (MLD) with sequential pneumatic compression (SPC) for treatment of unilateral arm lymphedema in 28 women previously treated for breast cancer. After 2 weeks of therapy with a standard compression sleeve (Part I) with maintenance of a steady arm volume, each patient was randomly assigned to either one of two treatment regimens (Part II). MLD was performed according to the Vodder technique for 45 min/day and SPC was performed with a pressure of 40-60 mmHg for 2 hours/day. Both treatments were carried out for 2 weeks. Arm volume was measured by water displacement. Arm mobility, strength, and subjective assessments were also determined.

Lymphedema was reduced by 49 ml (7% reduction) (p=0.01) in the total group during Part I. During Part II, the MLD group decreased by 75 ml (15% reduction) (p<0.001) and the SPC group by 28 ml (7% reduction) (p=0.03). The total group reported a decrease of tension (p=0.004) and heaviness (p=0.01) during Part I. During Part II, only the MLD group reported a further decrease of tension (p=0.01) and heaviness (p=0.008).

MLD and SPC each significantly decreased arm volume but no significant difference was detected between the two treatment methods.