

**PROSPECTIVE EVALUATION OF A PREVENTION PROTOCOL FOR
LYMPHEDEMA FOLLOWING SURGERY FOR BREAST CANCER**

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ABSTRACT

Lymphedema is a common complication of axillary dissection and thus emphasis should be placed on prevention. Fifty-five women who had breast-conserving surgery or modified radical mastectomy for breast cancer with axillary dissection were randomly assigned to either the preventive protocol (PG) or control group (CG) and assessments were made preoperatively and at 1,3,6,12 and 24 months postoperatively. Arm volume (VOL) was used as measurement of arm lymphedema. Clinically significant lymphedema was confirmed by an increase of at least 200 ml from the preoperative difference between the two arms. The preventive protocol for the PG women included preoperative upper limb lymphoscintigraphy (LS), principles for lymphedema risk minimization, and early management of this condition when it was identified. Assessments at 2 years postoperatively were completed for 89% of the 55 women who were randomly assigned to either PG or CG. Of the 49 women with unilateral breast cancer surgery who were measured at 24 months, 10 (21%) were identified with secondary lymphedema using VOL with an incidence of 8% in PG women and 33% in CG women. These prophylactic strategies appear to reduce the development of secondary lymphedema and alter its progression in comparison to the CG women.