Relation between Practicing Lymphedema Risk Reduction Strategies by Women Post Mastectomy and Stages of Lymphedema

Thesis

Submitted for Partial Fulfillment of
Master Degree

In
Medical – Surgical Nursing

By

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Faculty of Nursing
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Faculty of Nursing
Ain Shams University
2018

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Acknowledgement

First and foremost, I feel always indebted to Allah, the Most Kind and the Most Merciful for all his blessing and for giving me the will and strength for completion of this work.

I wish to express my deep appreciation and gratitude to Dr. Asmaa Hamdi Mohamed, Assistant Professor of Medical surgical Nursing Ain Shams University. Words cannot describe how grateful I am for her guidance, valuable support, constructive criticism, and continuous, unlimited help. I would not have been able to start and reach perfection of this work without her support.

I would like to express my deep thanks and appreciation to DR. Sara Fathi Mahmoud, lecturer of Medical surgical Nursing, Faculty of Nursing, Ain Shams University, for her supervision, help, valuable support and guidance. I am deeply affected by her noble character. I would not have been able to start and reach perfection of this work without her support.

Last but not least, I am grateful to my husband and to all those who sincerely helped me to fulfill this work.

Amal Mohamed Sobhy Abdel-Fatta

Abstract 🕮

Relation between Practicing Lymphedema Risk Reduction Strategies by Women Post Mastectomy and Stages of Lymphedema

Background: practicing lymphedema risk reduction strategies have a great effect on stages of lymphedema post mastectomy and slow down the transition from stage to another stage. **Aim:** The current study aimed to determine the relation between practicing lymphedema risk reduction strategies by women post mastectomy and stages of lymphedema through: 1) Assessing the women's knowledge and practices regarding lymphedema risk-reduction strategies. 2) Assessing the stages of lymphedema. 3) Determining the relation between practicing lymphedema risk reduction strategies by women post mastectomy and stages of lymphedema. **Design**: Cross sectional descriptive design was used. **Subjects:** Purposive samples of 80 adult female patients with post mastectomy lymphedema were recruited in the current study. **Setting:** At the oncology outpatient clinics and oncology department at radiation oncology and nuclear medicine center affiliated to Ain Shams University., Cairo, Egypt. **Tools:** 1) Patients` knowledge assessment structured interview questionnaire 2) Lymphedema risk reduction strategies checklist. 3) Lymphedema staging assessment scale. **Results:** there was a highly statistically significant relation between the total risk reduction strategies and stages of post mastectomy lymphedema, especially the strategies related to skin care and exercise and home activities, infection prevention and avoidance of extreme heat. While, there was significant relation between avoidance of arm constriction strategies and stages of post mastectomy lymphedema. But, there was no statistically significant relation between improving lymphatic drainage strategies and stages of post mastectomy lymphedema. **Conclusion:** There was a relation between the practicing for total risk reduction strategies and stages of post mastectomy lymphedema. But, there was no relation between improving lymphatic drainage strategies and stages of post mastectomy lymphedema. **Recommendations:** The present study suggests developing an educational program about lymphedema risk reduction strategies for patients undergoing mastectomy to decrease physical, psychological and social burden of lymphedema post mastectomy.

Keywords: **Lymphedema, Lymphedema stages, Post mastectomy, Risk reduction strategies.**

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List of Abbreviations

ACS :	American Cancer Society
ALND:	Axillary Lymph Node Dissection
BMI :	Body-Mass Index
CDT :	Comprehensive Decongestive Therapy
CT :	Computed Tomography
SLNB :	Sentinel Lymph Node Biopsy
ISL :	International Society of Lymphology
MLD :	Manual Lymph Drainage
MRI :	Magnetic Resonance Imaging
MRM :	Modified Radical Mastectomy
NCI :	National Cancer Institute
NLN :	National Lymphedema Network
SLN :	Sentinel Lymph Node
US :	Ultrasound

Introduction

Mastectomy is a surgical operation in which the entire breast, often including the nipple and the areola, is removed. Mastectomy is usually performed as a treatment of breast cancer. In general, women with breast cancer can decide along with the surgeon whether to be treated with a lumpectomy or a mastectomy **(Czerniec, Ward & Kilbreath, 2016).**

Breast cancer treatments, including surgery, radiotherapy, chemotherapy, and hormonal therapy, have improved patient outcomes, however, these treatments can probably cause patients potentially suffer substantial complications **(Heisig et al., 2016)**. Lymphedema is one of the most common complications after mastectomy, it is described as a set of pathological conditions, in which protein-rich fluid accumulates in soft tissues because of interruption of lymphatic flow **(Smykla et al., 2013).**

There is no consistency in the data regarding the incidence and prevalence of lymphedema after breast cancer, probably because of the differences in diagnosis, and inadequate follow-up to capture delayed development of the disorder **(Zou et al., 2018).**

DiSipio, Rye, Newman and Hayes, (2013) stated that lymphedema of the arm post mastectomy occurs in 20% of women who undergo axillary lymph node dissection and in 6% of women who undergo sentinel lymph node (SLN) biopsy at the first 2 years post-surgery, in their study done in Australia titled "Incidence of unilateral arm lymphoedema after breast cancer: a systematic review and meta-analysis".

The worldwide reported incidence of lymphedema varies widely from 2 to 73% due to variable baseline characteristics, variability of time of onset, fluctuating clinical condition, common spontaneous resolution, differing measurement methods, diagnostic criteria and duration of follow-up as well as study sample size **(Norman, et al., 2010).**

Women suffering from lymphedema post mastectomy can experience pain, swelling, arm tightness, heaviness of the arm, and recurrent skin infections. If left untreated, lymphedema may predispose the affected limb to the development of other secondary complications like recurrent bouts of cellulitis or lymphangitis, axillary vein thrombosis,