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## PHYSICAL LIMITATIONS IN RESPECT TO DAILY ROUTINE ACTIVITIES AFTER THE SURGICAL TREATMENT OF BREAST CANCER

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### ABSTRACT

**Purpose:** The objective of this study was to evaluate physical limitations of patients with lymphedema after the surgical treatment of breast cancer to do daily routine activities. **Method:** A group of 46 women in rehabilitation for lymphedema after the surgical treatment of breast cancer were evaluated in a randomized, cross-sectional, quantitative descriptive study in the Clinica Godoy, São José do Rio Preto. The mean age was 61.5 years. The types of surgeries performed and the numbers of chemotherapy and radiotherapy sessions were noted as were limitations in respect to dressing, eating and personal care and hygiene using a questionnaire with closed questions. Percentages were used for statistical analysis. **Results:** A total of 52.1% of the participants had been submitted to modified radical surgeries with 91.3% being unilateral; 82.6% of the women did not reconstruct the breasts. Six to 10 sessions of chemotherapy were performed in 63.04% of the cases and over thirty sessions of radiotherapy in 71.3%. Most participants (60.86%) had difficulties to dress, 23.91% had difficulties to feed and 43.47% had difficulties for hygiene but none reported receiving guidance by professionals to carry out daily routine activities. **Conclusion:** Lymphedema after the surgical treatment for breast cancer causes physical limitations to perform daily routine activities.

**Keywords:** Breast cancer, lymphedema, daily routine activities

## Introduction

Human activity has been studied by many scientific fields since antiquity. Man has an occupational nature, which characterizes him as being active to construct and transform his reality.<sup>1</sup> Therefore, any change or situation that might harm this occupation would negatively interfere life.

It is estimated that there will be 18.1 million new cases of cancer, with 9.6 million deaths worldwide. Breast cancer is the most common form among women and is among the three most prevalent forms of all types of cancer (11.6%).<sup>2</sup> Breast cancer is the most commonly diagnosed form in women throughout the world (24.2%), it is the fifth leading cause of cancer mortality worldwide, breast cancer accounts for 1 in 4 cancer cases and for 1 in 6 cancer deaths, ranking first for incidence in the vast majority of countries 159 of 185 countries considered in Globocan 2020 (Global Cancer Statistics).<sup>3</sup> In Brazil, with an estimated 66.280 new cases in 2020, incidence 43,74 cases per 100.000 women.<sup>4</sup>

One of the main complications after the treatment of breast cancer is lymphedema. Factors that trigger lymphedema reported in the literature include: radiotherapy, postoperative complications, infection, lymphangitis and the type of surgery which demonstrates the multifactorial nature of the disease and other important factor obesity.<sup>5,6</sup>

Among the complications after treatment for breast cancer is a decreased ability of the subcutaneous tissue of involved structures to stretch including the shoulder, elbow, wrist and

hand which, in turn, reduces the amplitude of joint movement. The consequence of this may range from being simply a nuisance to severe arm pain; the activities of the woman can be severely affected.<sup>7</sup> One of the recommendations is about care of the limb, which often interferes in daily routine activities, the physical capacity and quality of life and includes hygienic care, care of the skin in particular in relation to injuries<sup>8</sup>, care required while moving the limb to avoid excessive force and repetitive movements and the correct joint posture<sup>9,10</sup> Therefore, daily occupational activities are fundamental in rehabilitation after the treatment of breast cancer. The objective of the current study was to evaluate limitations in personal daily activities after the surgical treatment of breast cancer with or without the presence of lymphedema.

## Method

A group of 46 women in rehabilitation for lymphedema after the surgical treatment of breast cancer were evaluated in a randomized, cross-sectional, quantitative descriptive study in the Clinica Godoy, São José do Rio Preto. The ages of the women ranged from 43 to 80 years with a mean of 61.5 years.

The inclusion criteria were being submitted to cancer treatment with axillary dissection and agreement to participate in the study. The only exclusion criterion was that patients were not submitted to axillary dissection.

An evaluation of difficulties in daily routine activities was made using a questionnaire with closed questions and identifying specific troubles in respect to

dressing, feeding and personal care and hygiene (brushing teeth, combing the hair, bathing). Additionally the patients were asked about the type of surgery, chemotherapy, radiotherapy and about professional guidance after the surgery.

All the patients who accepted to participate signed an informed consent form. The study was approved by the

Research Ethics Committee of FAMERP (protocol 92.883/ 2012).

### Results

Of the 46 women, 60.86% had difficulty to dress and 23.91% had difficulty to feed themselves, difficulty personal care and hygiene 43.47%, Table 1. Table 2 shows the types of surgery, radiotherapy and chemotherapy.

Table 1 - Difficulties in performing daily routine activities and professional guidance

	n	%
Difficulties in performing daily routine activities		
Dressing	28	60.86
feeding	11	23.91
Personal care and hygiene	20	43.47
Professional guidance	0	-

Table 2 - Type of surgery, number of sessions of radiotherapy and chemotherapy

	n	%
Type of surgery		
Radical mastectomy	4	8.6
Modified radical mastectomy	24	52.17
Quadrantectomy	18	39.13
Unilateral	42	91.3
Bilateral	4	8.6
Chemotherapy sessions		
0	7	15.2
1 to 5	5	10.8
6 to 10	29	63.04
11 to 20	4	8.6
More than 20 sessions	1	2.17
Radiotherapy sessions		
0	4	8.6
1 to 5	0	-
6 to 10	0	-
11 to 20	1	2.1
21 to 30	8	17.39
More than 30 sessions	33	71.73

## Discussion

The treatment of breast cancer in itself is a very important change in the lives of these women. Apart from the mutilation, pain, emotional instability in relation to this procedure, and lymphedema may be present in the lives of these women. This demonstrates the multifactorial consequences that accompany breast cancer treatment, which frequently, when combined, are difficult to detect and to give the necessary support. The current study detected significant changes in relation to performing daily routine activities and basic care such as feeding and personal hygiene. This corroborates research in the area of rehabilitation related to morbidity

after breast cancer treatment which leads to functional sequela that interfere in the daily life.<sup>11</sup>

In this study it was found that even individuals with a high level of schooling, who, in theory, are well informed about health issues and have access the better health services, did not receive any kind of psychological and physical support during treatment, had difficult problems to perform daily routine activities and even though they required help from others, this was often not possible. These individuals reported that some aspects, such as pain worsened when they tried to perform activities with their limitations of movement. Thus, a multidisciplinary team, which addresses the problems of these

patients more thoroughly, is recommended with the functional aspect of the limb to carry out daily activities being valued.<sup>12</sup> Additionally, a program with trained staff that evaluates the physical, environmental and social aspects is important to make necessary adaptations for these women to return to their daily routine and occupational activities.

### Conclusion

The surgical treatment of breast cancer and associated lymphedema cause physical limitations to perform daily routine activities.

### Conflict Interest and financial support

The authors declared no have financial support and conflict interest.

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