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## INTRODUCTION

The surgical treatment for breast cancer can lead to several complications which can cause poorer health-related quality of life (HRQoL) (Del Bianco et al 2008). Advanced age, comorbidities and advanced diseases increase the risk of postoperative complications (DE GLAS et al 2013). Depression, pain and anxiety are common events in patients were submitted to surgical treatment for breast cancer. (PELAI et al 2012; AVELAR et al 2012). No studies were found to evaluate a HRQoL as a predictor of surgical complications in women with breast cancer.

## OBJECTIVE

Evaluate the association between a preoperative HRQoL and post-operative wound complications in breast cancer patients.

## METHODS

A cohort study was conducted with women aged 18 years or over, diagnosed with breast cancer at the Cancer Hospital III (HCIII) of the Brazilian National Cancer Institute (INCA) from April (2016) to December (2017), will be included. Were excluded women with difficulty for locomotion, previous history of cancer, without clinical or psychological conditions to respond to the questionnaire and who did not agree to sign the Informed Consent Term (TCLE). It was considered as a main exposure, HRQoL, which was evaluated through the EORTC questionnaire QLQ-C30 3rd edition (European Organization for Research and Cancer Quality of Life Questionnaire) and the specific module of breast cancer (EORTC QLQ- BR23). The outcome, cicatricial complications, related to surgical treatment, will be collected through direct search of the physical record. After the inclusion period, will be considered healing complications: seroma (presence of flotation in the plastron, residual breast or armpit, requiring aspiration of 50 ml or more), necrosis (lesion devascularized at the cicatricial margin of the surgical wound with tissue decomposition of liquefactive or coagulative appearance), surgical site infection (infection occurring within 30 days after the procedure) and hematoma (occurrence of internal bleeding of the surgical site, requiring revision in a surgical center). Descriptive analysis was performed using the mean ( $\pm$  standard deviation) and median (minimum-maximum) for continuous variables and frequency distribution for categorical variables. To assess the association between quality of life and healing complications of surgical treatment for breast cancer, a simple logistic regression will be performed considering a value of  $p < 0.20$ . Multiple logistic regression will be performed by the enter method (stepwise forward), considering the 95% confidence interval. This study was approved by the Ethics and Research Committee of the Brazilian National Cancer Institute (51100615.7.0000.5274).

## PRELIMINARY RESULTS

To date, 107 patients were included, with mean age 58.9 years (SD  $\pm$  10.9). 89.7% presented initial staging (<IIB), 75% did not present comorbidities and 52.3% had systemic arterial hypertension. Regarding HRQoL, analyzed by EORTC QLQ-30, the lowest score was observed in the emotional function (mean 65.3  $\pm$  30.5) and the best in the social function (mean 87.4  $\pm$  24.7). For the scores on the symptom scale, the worst were for insomnia (mean 31.5  $\pm$  41.9) and financial difficulty (mean 26.2  $\pm$  40.2). As regards general quality of life, the mean was high (mean 74.0  $\pm$  21.2). In the specific evaluation by EORTC BR-23, body image presented better score (mean 85.0  $\pm$  25.6) and symptoms in the breast and arm obtained similar scores, with averages of 13.2  $\pm$  16.5 and 13.4  $\pm$  18.9 respectively. The association between the exposure and the outcome will be performed after the end of the inclusion period in December 2017.

Table 1. Sociodemographic characteristics (N=107)

Variable	N	%
<b>Age</b>		
Mean (SD)	58.9( $\pm$ 10.9)	
<b>Race/ skin color</b>		
White	38	35.5
Black	21	19.6
Asian Brazilians and indigenous	3	2.8
Mulatto	44	41.1
Missing	1	0.9
<b>Educational level (years)</b>		
0 to 7 years	38	35.5
$\geq$ 8 years	69	64.5
<b>Occupation</b>		
No working	52	48.6
Working	50	46.7
Illness aid	4	3.7
Missing	1	0.9
<b>Per capita income</b>		
$\leq$ 1 minimum wage	53	49.5
$>$ 1 minimum wage	51	47.7
<b>Marital status</b>		
Married or stable union	58	54.2
No partner	49	45.8
<b>Place of residence</b>		
Rio de Janeiro	63	58.9
Metropolitam region	40	37.4
Others	4	3.7

\* In the studie, 1 minimum wage corresponded to R\$ 880.00 (equivalent to US\$ 252.14 on 04/04/2016)

Table 2. Clinical and tumor characteristics (N=107).

Variable	N	%
<b>Staging</b>		
< IIB	96	89.7
$\geq$	5	4.7
<b>Alcohol consumption</b>		
No	75	70.1
Yes	28	26.2
Missing	4	3.7
<b>Smoking</b>		
No	94	87.9
Yes	10	9.3
Missing	3	2.8
<b>Comorbidities</b>		
No	81	75.7
Yes	25	23.4
Missing	1	0.9
<b>Systemic arterial hypertension</b>		
No	51	47.7
Yes	56	52.3

Table 3. Descriptive analysis for domains quality of life (n = 107).

EORTC QLQ C-30	Media ( $\pm$ DP)
<b>Functional scales</b>	
Physical functioning	85.4 (18.4)
Role functioning	83.5 (25.9)
Cognitive functioning	76.3 (25.4)
Emotional functioning	65.3 (30.5)
Social functioning	87.4 (24.7)
<b>Scales Symptom</b>	
Fatigue	15.6 (19.7)
Pain	18.4 (26.5)
Dyspnoea	7.8 (21.3)
Insomnia	31.5 (41.9)
Appetite loss	7.2 (20.0)
Nausea and vomiting	6.2 (14.6)
Constipation	19.6 (34.5)
Diarrhoea	4.7 (15.5)
Difficulties Financial	26.2 (40.2)
<b>Global health status</b>	74.0 (21.2)
<b>EORTC BR-23</b>	
<b>Functional scales</b>	
Body image	85.0 (25.6)
Sexual functioning	33.7 (32.1)
Sexual Satisfaction	52.9 (40.4)
Future perspective	41.4 (39.3)
<b>Symptom scales</b>	
Breast symptoms	13.2 (16.5)
Arm symptoms	13.4 (18.9)

\*In bold statistically significant p values

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