**MAIN COMORBIDITIES ASSOCIATED WITH BREAST NEOPLASIA IN
CHEMOTHERAPEUTIC TREATMENT**
**PRINCIPAIS COMORBIDADES À NEOPLASIA MAMÁRIA EM TRATAMENTO
QUIMIOTERÁPICO**
**PRINCIPALES COMORBIDADES ASOCIADAS A LA NEOPLASIA MAMARIA EN TRATAMIENTO
QUIMIOTERÁPICO**

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ABSTRACT

Objective: to identify the main comorbidities related to breast cancer in women receiving chemotherapy. **Method:** this is a descriptive and cross-sectional quantitative study in a public hospital with the participation of 317 women with breast cancer undergoing chemotherapy. Data was collected using a structured questionnaire containing closed questions and absolute and relative frequencies were used for data analysis, and the results were presented in tables. **Results:** it was observed that 36.3% of the participants had associated pathologies, where the most common clinical conditions were hypertension (65.2%) and Diabetes Mellitus (36.5%). **Conclusion:** it is concluded that women with breast cancer undergoing chemotherapy have associated diseases, both physical and psychological, and the most prevalent were hypertension, diabetes mellitus and depression. **Descriptors:** Breast Neoplasias; Pharmacological treatment; Comorbidade; Women's Health; Nursing Oncology; Hospital Oncology Service.

RESUMO

Objetivo: identificar as principais comorbidades relacionadas ao câncer de mama em mulheres em tratamento com quimioterapia. **Método:** trata-se de um estudo quantitativo, do tipo descritivo e transversal, em um hospital público, com a participação de 317 mulheres com câncer de mama submetidas a tratamento quimioterápico. Coletaram-se os dados por meio de questionário estruturado contendo questões fechadas e utilizaram-se, para a análise dos dados, frequências absolutas e relativas, apresentando-se os resultados em tabelas. **Resultados:** observou-se que 36,3% das participantes possuíam patologias associadas, onde as condições clínicas mais comuns foram a hipertensão arterial (65,2%) e a Diabetes Mellitus (36,5%). **Conclusão:** conclui-se que as mulheres com câncer de mama em tratamento quimioterápico possuem doenças e agravos associados, tanto físicos, como psicológicos, e os mais prevalentes foram a hipertensão arterial, o Diabetes Mellitus e a depressão. **Descritores:** Neoplasias da Mama; Tratamento Farmacológico; Comorbidade; Saúde da Mulher; Enfermagem Oncológica; Serviço Hospitalar de Oncologia.

RESUMEN

Objetivo: identificar las principales comorbilidades relacionadas con el cáncer de mama en mujeres en tratamiento con quimioterapia. **Método:** se trata de un estudio cuantitativo, del tipo descriptivo y transversal, en un hospital público, con la participación de 317 mujeres con cáncer de mama sometidas a tratamiento quimioterápico. Se recolectaron datos por medio de un cuestionario estructurado que contenía cuestiones cerradas y se utilizaron, para el análisis de los datos, frecuencias absolutas y relativas, presentándose los resultados en tablas. **Resultados:** se observó que el 36,3% de las participantes poseía patologías asociadas, donde las condiciones clínicas más comunes fueron la hipertensión arterial (65,2%) y la Diabetes Mellitus (36,5%). **Conclusión:** se concluye que las mujeres con cáncer de mama en tratamiento quimioterápico poseen enfermedades y agravios asociados, tanto físicos, como psicológicos, y los más prevalentes fueron la hipertensión arterial, la Diabetes Mellitus y la depresión. **Descriptor:** Neoplasia de la Mama; Tratamiento Farmacológico; Comorbilidad; Salud de la Mujer; Enfermería Oncológica; Servicio de Oncología em Hospital.

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INTRODUCTION

It is known that breast cancer is widely recognized as a heterogeneous disease in relation to clinical and morphology,¹ resulting from the multiplication of abnormal breast cells, which forms a tumor with the potential to invade other organs.² It is explained that there is no exclusive cause and several risk factors can be related, such as environmental, hormonal and genetic. It can be seen that cancer is relatively less frequent in young women: above 35 years, its incidence increases progressively, especially after the age of 50, and age is therefore also one of the risk factors.³

It is reported that, in term of existence, it is the most insidious type of cancer among women¹, however, it is not a female-only neoplasm, and the opposite sex may also rarely be affected and, according to predictions of the National Cancer Institute (NCI), the incidence of new cases predicted 59,700 in the year 2018.⁴

Comorbidity is considered an important prognostic factor for the definition of cancer treatment and for the survival of women with breast cancer, especially chemotherapy, since some therapeutic methods may further compromise the health condition of these patients.⁵

In the evaluation of patients with breast cancer, several comorbidities are observed: Systemic Arterial Hypertension (SAH), Diabetes Mellitus (DM), vascular diseases, obesity, fatigue and psychological disorders⁵⁻⁷ and, among the aforementioned, the most prevalent in women with breast cancer undergoing chemotherapy, according to the studies found, are hypertension, obesity and DM.⁸

It is necessary to investigate, knowing that the comorbidities are directly related to the quality of life and the survival of cancer patients, which diseases and associated diseases are more frequent.

OBJECTIVE

- To identify the major comorbidities related to breast cancer in women undergoing chemotherapy.

METHOD

This is a quantitative, descriptive and cross-sectional study that was carried out at the Ambulatory Unit of a specialized clinic in Mammary Pathology of the Pernambuco Cancer Hospital (PCH), from September to November, 2015. It is characterized the PCH

for being an institution that began its activities in a philanthropic way on November 9, 1945. Since its creation until the present day, it has become a reference in its field of action in the North and Northeast of Brazil and, throughout its trajectory, plays the role of assistance to cancer patients, as well as information to the population about the importance of preventing this disease.

The sample was calculated based on the proportion estimate, since it was intended to identify it for the quantitative of women with breast cancer in the chemotherapy treatment phase. It was obtained, considering that the monthly average of patients with breast neoplasia undergoing chemotherapy in PCH was 1,800 (N) and some constant statistical values, such as the 95% confidence level ($z = 1.96$) and the error (e) or (d) of 5%, a sample (n) of 317 patients, having as reference a finite population.

As inclusion criteria, female patients with breast cancer were treated as outpatient chemotherapy in the PCH, aged 18 years and above, with communication skills for reading and writing comprehension. As exclusion criteria, female patients were treated differently from chemotherapy.

The data were collected as follows: the Free and Informed Consent Term (FICT) was delivered, read and explained to each of the 317 women at the time they were performing chemotherapy at the PCH outpatient clinic, and when they agreed to participate of the research, signed it showing agreement and then responded to the collection instrument with information about their clinical treatment.

The variables that are part of this study were analyzed as comorbidities and associated pathologies, which represented a view of the clinical status of the patients, from the collection of data collected through a clinical record composed of multiple choice closed questions produced by the authors.

There was little difficulty during this process, and this happened when only four patients refused to participate in the study, claiming to be very tired or without patience, but the other patients approached accepted spontaneously, since they felt happy to be looked for as well how to contribute to the accomplishment of the work.

Clinical profile data were first inserted into spreadsheets into Microsoft Excel® software by transferring and analyzing them subsequently through a quantitative and descriptive approach by analyzing their frequencies (absolute numbers) and isolated

and interval present in the study population, presenting them in table form.

This study corresponds to a cut of a master's thesis authored by Cristina Albuquerque Douberin, which was submitted and approved by the Research Ethics Committee (REC) of the Pernambucana Society for Combating Cancer under CAAE nº 45583415.0.3001.5205. the dissertation defended by the author by the Associate Program of Nursing Post-graduation of the

University of Pernambuco (UPE) / State University of Paraíba (UEPB), in May 2016.

RESULTS

It is described, about the disease or associated affliction, that 115 (36.3%) women claimed to have associated disease and / or aggravation and, of these, 65.2% reported having SAH and 36.5%, DM, with these two injuries being therefore the most preponderant. These results are shown in Table 1.

Table 1. Presence of illness or injury associated with chemotherapy. Recife (PE) Brazil, 2015.

Variables	n	%
Comorbidity (N=317)		
Do not have	202	63.7
Has	115	36.3
Associated pathologies*(N=115)		
Systemic Arterial Hypertension	75	65.2
Diabetes Mellitus	42	36.5
Others	79	68.7

* The percentages of the indicated diseases were calculated based on the responses of 115 women who responded positively and could indicate more than one disease.

DISCUSSION

In the case of the presence of any disease or condition associated with breast cancer, among the majority of women who reported having other diseases, systemic arterial hypertension and Diabetes Mellitus were the most prevalent, and these results are according to several studies carried out with patients with mammary neoplasia where the vascular and endocrine systems were the most affected and the hypertension and DM were the predominant clinical conditions.^{8,9}

It is known that the prevalence of SAH as a comorbidity may be related to chemotherapy in which patients are submitted and may cause cardiac toxicity.^{10,11} The chemotherapeutic drugs of the class of anthracyclines, doxorubicin and cyclophosphamide, are widely used and have proven efficacy in the treatment of breast cancer, but several studies have shown that these agents can induce cardiotoxic effects.^{11,12} Therefore, chemotherapy may lead to cardiovascular complications, such as hypertension. However, the relationship between hypertension and breast cancer is still inconsistent in the literature.

In tune with the findings discussed above, a study with women with breast cancer showed a similar prevalence of comorbidity, where 90% reported being hypertensive and 85% had diabetes¹³.

The study carried out with 166 women with breast cancer remains the same, where the

most common associated pathology was SAH (54.2%T).¹⁴

Relating breast cancer and DM, one study says that hyperglycemia can influence breast tumor progress and increase.¹⁵ But no study was found that states the direct relationship between chemotherapy in a breast cancer patient and DM.

It is believed that depression also attracted attention, as 7% of the sample reported presenting the disease, and some studies have also verified the presence of psychiatric diseases associated with patients with breast cancer undergoing chemotherapy, such as depression and anxiety, reaffirming the result found in this study.^{16,17}

In a study conducted in the city of Barbalha-CE, with 51 women diagnosed with breast cancer undergoing antineoplastic treatment, the onset of depression seems to be more related to the characteristics inherent to the patient, such as personality and pre- than cancer-related characteristics and their treatment.¹⁸ It is stated, in study, that depression in cancer patients has a higher percentage in breast cancer patients because it is more prevalent in females.¹⁹

Anxiety is related to cancer patients, most often to the initial phase, where the patient is diagnosed, and doubt and fear of the unknown can lead to psychological changes.²⁰

Considering the limitations of the study, as well as advances in scientific knowledge, it was evidenced through this study the importance of controlling comorbidities and

their treatment, because despite the limitations of studies that prove the relationship of chemotherapy treatment and comorbidities cited in this study, it can be said that comorbidities are a strong and important predictor for the survival of patients with breast cancer.

CONCLUSION

Therefore, it can be observed that SAH and DM are very evident in the lives of women with breast neoplasia; however, there is no evidence in the literature that breast cancer involves the appearance of SAH, which has been developed in before the diagnosis of neoplasia.

It is necessary, however, to emphasize the importance of psychological counseling to cancer patients, especially to women with breast cancer, since, as previously mentioned, they are the ones most affected by psychological disorders such as depression and anxiety.

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