

**Self-knowledge as an important factor in breast cancer diagnosis: a case study**  
**Autoconhecimento como fator importante no diagnóstico de câncer de mama: estudo de caso**

**Autoconocimiento como factor importante en el diagnóstico de cáncer de mama: estudio de caso**

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Heloísa Silva Guerra<sup>1</sup>  
Oemis Eduardo Xavier<sup>2</sup>  
Ruth da Silva Rêgo<sup>3</sup>  
Jorge Henrique Assunção Dias<sup>4</sup>  
Gustavo da Paixão Alcântara<sup>5</sup>

It is a case study whose objective was to report the difficulty in detecting a breast cancer, in which the diagnosis was guided by a single clinical finding. The period considering the information was from 2016, but held in the first half of 2019 in the city of Goiás. There was underdiagnosis by various health professionals, after three mammograms and two ultrasound suggestive of benignity. Despite the results, the patient sought a referral hospital and tests repetition also showed benignity, but the adaptation of devices in the exam showed malignancy, to the point that the patient underwent chemotherapy, then mastectomy. Exercising self-knowledge is an important tool that contributes to female emancipation and expression of her empowerment, as well as the complete history, qualified listening and detailed physical examination are essential for accurate diagnosis; and timely treatment with a view to improving the quality of life of the patient.

**Descriptors:** Breast neoplasms; Diagnosis; Mammography.

Trata-se de um estudo de caso, cujo objetivo foi relatar a dificuldade na detecção de uma neoplasia mamária, em que o diagnóstico orientou-se por um único achado clínico. O período considerando das informações foi desde 2016, mas realizado no primeiro semestre de 2019, em cidade do interior de Goiás. Houve subdiagnóstico por vários profissionais de saúde, após três mamografias e duas ultrassonografias sugestivas de benignidade. A despeito dos resultados, a paciente buscou hospital de referência e a repetição de exames mostraram ainda benignidade, mas a adaptação de aparelhos no exame mostrou malignidade, a ponto de que a paciente chegou a fazer quimioterapia e depois mastectomia. Exercitar o autoconhecimento é ferramenta importante que contribui para emancipação feminina e expressão de seu empoderamento, bem como, a anamnese completa, a escuta qualificada e o exame físico detalhado, são essenciais para o diagnóstico preciso; e, tratamento oportuno com vistas à melhoria da qualidade de vida da paciente.

**Descritores:** Neoplasias da mama; Diagnóstico; Mamografia.

Se trata de un estudio de caso, cuyo objetivo fue reportar la dificultad en la detección de una neoplasia mamaria, en la que el diagnóstico se orientó por un único hallazgo clínico. El período considerado de la información fue desde 2016, pero realizado en el primer semestre de 2019, en ciudad del interior de Goiás. Hubo subdiagnóstico por varios profesionales de salud, después de tres mamografías y dos ecografías sugestivas de benignidad. A pesar de los resultados, la paciente buscó hospital de referencia y la repetición de exámenes mostraron aún benignidad, pero la adaptación de aparatos en el examen mostró malignidad, hasta el punto de que la paciente llegó a recibir quimioterapia y después mastectomía. Ejercitar el autoconocimiento es una herramienta importante que contribuye a la emancipación femenina y expresión de su empoderamiento, así como, la anamnesis completa, la escucha cualificada y el examen físico detallado, son esenciales para el diagnóstico preciso; y, tratamiento oportuno con vistas a la mejora de la calidad de vida de la paciente.

**Descriptoros:** Neoplasias de la mama; Diagnóstico; Mamografía.

1. Physical therapist. Specialist in Trauma and Orthopedic Physiotherapy. Specialist in Therapy of Human Movement. Specialist in Occupational Health. Master in Public Health. PhD student in Public Health at the University of the Sinos Valley. I Adjunct Professor of Rio Verde University School of Medicine (UniRV), Campus Aparecida de Goiânia, Goiás, Brazil. ORCID: 0000-0002-0617-8112 E-mail: heloisasguerra@gmail.com

2. Undergraduate student in Medicine at UniRV, Campus Aparecida de Goiânia, Goiás, Brazil. ORCID: 0000-0001-9852-5312 E-mail: oemiseduardo@gmail.com

3. Undergraduate student in Medicine at UniRV, Campus Aparecida de Goiânia, Goiás, Brazil. ORCID: 0000-0002-4729-6465 E-mail: ruthrego29@gmail.com

4. Undergraduate student in Medicine from UniRV, Campus Aparecida de Goiânia, Goiás, Brazil. ORCID: 0000-0001-6446-2552 E-mail: jorgehadias1@gmail.com

5. Undergraduate student in Medicine at UniRV, Campus Aparecida de Goiânia, Goiás, Brazil. ORCID: 0000-0002-1058-6207 E-mail: gustavopaixaoalcantara@hotmail.com

## INTRODUCTION

**O** Breast cancer (BC), excluding non-melanoma skin cancer is the most frequent cancer in the world and in Brazil, except in the north region<sup>1</sup>. BC is rare before age 35, and its incidence increases exponentially with age<sup>2</sup>.

Among the risk factors it stands out age over 50 years, menarche before age 12, menopause after 55 years, first pregnancy after 30 years, nulliparity, use of hormonal contraceptives or hormone replacement therapy, alcohol consumption, smoking, overweight, exposure to ionizing radiation, family history of BC or ovarian cancer and mutations in the genes BRCA 1 and BRCA 23.

Prevention is divided into primary and secondary. Primary prevention is related to control of risk factors in women BRCA 1 and 2 positive, prophylactic mastectomy or tamoxifen. Secondary prevention is related to screening via biennial mammography (MMG) for women aged 50-69 years<sup>3</sup>, and ultrasonography (USG) of breasts and magnetic resonance imaging (MRI) may be indicated in specific cases<sup>4</sup>.

The most common clinical manifestations of BC are eczematous lesions of the skin that does not respond to topical treatments, retraction of the breast skin, change in nipple shape, progressive breast augmentation and signs of edema, breast mass in women over 30 to 50, which persist for more than a menstrual cycle, immovable or hard breast mass or that is increasing in adult women of any age<sup>5</sup>.

The diagnosis is the general clinical examination, imaging and pathological examinations (AP). Among imaging tests, MMG is the most used for its affordability and low cost, but it is limited as to differentiate between solid and cystic structures, evaluation of dense breasts or fibrocicatricial changes, which can be solved with association to the USG or RNM<sup>6</sup>.

MMG is made to put woman standing in front of the mammography unit, with bare breasts without the use of moisturizing creams, perfumes and deodorants that can generate artifacts. Then the breast is positioned on the device, followed by compression between two planar plates to the embodiment of the images. The test lasts a few minutes<sup>7</sup>.

The BC prognostic factors include the degree of cellular differentiation, staging and immunohistochemical examination, which assesses the abnormal expression of HER2, associated with more aggressive disease and absence of hormone receptors<sup>5,8</sup>. The BC treatment must be individualized and can include chemotherapy, radiotherapy, partial or total mastectomy, lymphadenectomy, hormonal therapy and monoclonal antibody<sup>9</sup>. Thus, the aim of this study was to report the difficulty in detecting a breast cancer, in which the diagnosis was guided by a single clinical finding.

## METHOD

This is a descriptive case study, performed by monitoring a patient with breast cancer not identified by standard protocol tests.

The fieldwork involved the collection of data in a Basic Health Unit (BHU) in the municipality of Cabeceiras - GO, from file cards, medical records and examinations, from May to July 2019.

The study was approved by the Research Ethics Committee of the Rio Verde Higher Education Foundation - FESURV - University of Rio Verde, through Opinion No. 3,193,259, CAAE 07803319.8.0000.5077; and it was assured the participants that their cooperation was free, consensual, enlightened and acceptance would be given by signing the Informed Consent Form (IC).

## RESULTS

Patient LFC, 44, married, teacher, born in Cabeceiras-GO. She reported menarche at the age of 14 G2 P2 (n+c) A0, first child at 31 and second at 35, having breastfed both children for 2 years, use of combined oral contraceptives since the age of 22, using mini pill in the period of the first child lactation and tubal sterilization after having the second child.

At about two years ago, aged 42 year old, she noticed a depression in the right nipple, no palpable mass, pain and papillary discharge. She sought medical attendance at UBS in her municipality that requested a mammography (MMG). In return, in September 2016, the MMG brought a BIRADS 2 finding (benign findings) and the professional oriented that it would possibly milk retained.

Not satisfied with the conduct of the doctor, the patient reports she sought a breast cancer specialist in another city, who requested MMG and ultrasound of the breasts (USGM). In return, the MMG (which was held in a different clinical than the first) brought a BI-RADS 3 result (probably benign findings) and USGM within normality. Given these findings, the breast cancer specialist agreed with the initial conduct of the UBS doctor.

With time, the patient realized that the nipple retraction was intensifying and decided to look for another doctor in her city in January 2017, who examined her and took note of her medical history, referring her to a hospital referral service. To be met in this service, in possession of new MMG consisting of BIRADS 3, the doctor reported that the changes were not worthy of concern, but when examining her he realized the imaging findings were not consistent with the clinic. Then, the patient was taken to mammography, and when performing another MMG, it was not found any findings suggestive of malignancy. Thus, the doctor met with the staff and decided to change the compressor. Upon MMG new changes were found suggestive of malignancy (BIRADS 5).

The medical team requested a needle core biopsy (BFA) or core biopsy, revealing breast carcinoma revealed invasive lobular carcinoma stage I; Furthermore, he also asked: scintigraphy, chest tomography, pelvic and abdominal USG, oncotic cytology, blood count, AST, ALT; which had results within the normal range, in addition to immunohistochemistry.

In return, with the tests mentioned, the team prescribed chemotherapy treatment with neoadjuvant intention. The patient underwent eight chemotherapy cycles with 21 days apart, with the first four cycles of Adriamycin and Cyclophosphamide and the last four of Paclitaxel, ending on 1 March 2018.

Weeks later, the patient had pneumonia and was hospitalized for completion of antibiotic therapy in the same referral hospital.

After resolution of the infection, it was scheduled mastectomy, occurring on 7 April 2018. Currently, the patient is in good general condition, without urinary and intestinal complaints, examination of the cardiovascular and respiratory systems without changes, amenorrhea complaint and shock-type pain in the breast that does not cease with analgesics or opioids, since the beginning of chemotherapy. Patient denies cancer history in the family and remains in follow-up in oncology referral service.

## DISCUSSION

Considering the case in question, it was realized the importance of body self-knowledge and the contestation, by the patient, of a result inconsistent with her clinical condition. Even with three negative mammographic results for malignancy, the patient insisted on seeking medical care, believing that something was not normal, enhancing her autonomy and self-care. Autonomy presupposes freedom of action and thought, allowing the person to act freely to choose the options that are presented.

A study with 400 women showed that a significant majority of them did not practice breast self-examination monthly, and that of the ten women, six only performed mammography

every two years<sup>10</sup>. Although not recommended by the National Cancer Institute (INCA) as a way of tracking, self-examination is a specific and systematic method to detect changes in the breast and helps in the self-knowledge of the body, aiding in the early detection of breast changes, as that women can go to a service motivated by these findings, avoiding future damage<sup>10</sup>.

In the current health system model, and from the perspective of Public Health, health education is essential in the critical awareness of individuals, involving them in the process of making decisions related to the improvement of their health and the environment in which they live<sup>11</sup>.

Guidelines for early detection of breast cancer in Brazil recommend screening mammography in women over 50 years<sup>12</sup>. This tracking is advanced for high-risk women to BC, such as those with mutations in the BRCA 1 and BRCA 2, BC history in first-degree relatives and women who had radiation therapy to the chest. This patient did not have any high-risk factors, so following the guidelines of the Ministry of Health (MOH), she would not fit in the population covered by the tracking. On the other hand, the Brazilian Federation of Gynecology and Obstetrics Associations (FEBRASGO) indicates the annual screening for all women over 40, in which case this patient would fit<sup>13</sup>.

The methodological approach for the early detection of breast cancer, includes, in addition to tracking, strategies for early diagnosis in cases with suspicious signs and symptoms. But many are the challenges to the implementation of the guidelines, such as the fact that all the necessary procedures will not be offered in a single service; increased demand associated with the mammographic screening and non-adherence of the professionals to the ministry guidelines<sup>12</sup>.

Another point important and controversial to be considered is the question of overscreening, which takes place in Brazil, largely because of mammographic screening is opportunistic, causing the examination performing frequency deviates from the recommended. A cohort of 13,387 women found that the overscreening reached 21% of them, with the majority occurring after 1 year of normal mammography<sup>14</sup>. This situation burdens the health system as it directs a significant amount of resources to perform unnecessary tests, which could be covering the needs of women who really need them.

In the present study, in which three results of MMG did not suggest malignancy, the examination was not very effective at first. Several factors can affect the sensitivity of MMG, such as patient positioning errors, poor quality of mammography, errors in interpretation of the test, dense breast, breast lesion size and lesion characteristics equivalent to normal radiographic tissue<sup>15</sup>.

In this case, it was observed that the difficulty of diagnosis is multifactorial, encompassing both the focus of ineffective incidence, that was only successful when changing a mammography part to suit the patients breast and then obtain the optimal effect to identify the lesion; and the small size of the lesion and its similarity to normal tissue, being realized only through the core biopsy performed later, which identified the absence of calcifications, besides low nuclear pleomorphism, presence of rare mitosis, absence of necrosis, moderate fibrosis, infiltration by mononuclear and peritumoral invasion not seen, also showing it was not a large lesion of in situ component<sup>3,6</sup>.

The limitations of MMG mentioned suggest that a simple evaluation of an imaging test is not enough to look for possible malignant lesions, emphasizing the importance of a complete medical history and perform a thorough physical examination.

The main BC dissemination pathways are hematogenous and lymphatic vessels and key sites are affected by bone metastases, lungs, pleura, liver, bone marrow and ovaries. This explains the need for bone scan, chest X-ray, pelvic and abdominal USG, oncotic cytology, blood count, AST and ALT, in which case the patient showed no changes, eliminating the possibility of metastatic disease<sup>9</sup>.

A study with patients with breast cancer in southern Brazil showed that the majority of carcinomas (53.9%) were smaller than 2 cm without lymph node involvement (57%) and no distant metastases (93, 4%)<sup>16</sup>; which enhances the features of the case in question.

Regarding risk factors for breast cancer, the present case demonstrated the age of first pregnancy over 30 years and use of combined oral contraceptive (which has relation to the estrogenic stimulus) and that leads to increased risk of developing breast cancer the higher the exposure time<sup>3</sup>.

Treatment of BC aims the locoregional and systemic disease control, in order to provide a good quality of life for patients and reduce mortality rates. Neoadjuvant chemotherapy is that previously performed surgical procedure proposing to decrease tumor size, prevent and reduce mutilating surgical distant metastases. The chemotherapeutic agents that are commonly used in neoadjuvant chemotherapy are the anthracyclines, cyclophosphamide, fluorouracil and paclitaxe<sup>19,17</sup>, as in this case.

The classic lobular carcinoma, also known as invasive lobular carcinoma stage I, tends to affect women younger than the variants of this histological type, with an average age of occurrence of 57 years<sup>18</sup>. The information corroborates the early onset of this cancer in the case. The frequency invasive lobular carcinoma ranges from 2 to 15% of MC and its most striking histological feature is the standard layout in single file of neoplastic cells.

Early diagnosis is to contribute to better treatment options and better prognosis. With technological advancement and greater possibilities for evaluation, conservative surgery has gained more space, over the implementation of mastectomies; providing less invasive surgical treatments and lower morbidity<sup>19</sup>.

## CONCLUSION

The clinical case draws attention to the importance of self-knowledge and autonomy of the patient in the health production process; as well as the clinical debate to better approach the case. The awareness of individuals and stimulating self-care are crucial to the exercise of that freedom, in addition to the division of responsibilities between professionals and patients.

Exercising self-knowledge is an important tool, which contributes to female emancipation and expression of their empowerment as ability to perform by herself the necessary changes to her evolution, not allowing manipulations of any kind.

A complete history, qualified listening and detailed physical examination are essential for accurate diagnosis; stressing that humanitarian and thorough research contribute to a more effective care and timely treatment with a view to improving the patients' quality of life.

The study has limitations, since, because it is a unique case, its conclusions have no basis for generalization. However, due to the negative impact and the serious consequences that can occur because of a diagnosis not performed, it is relevant to the dissemination of its findings.

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### CONTRIBUIÇÕES

All authors equally contributed to study design, writing and review.

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