

DISAGREEMENT BETWEEN THE RELATIONSHIP OF THE BI-RADS® US 4B FINDING WITH BENIGN OUTCOME IN A PATIENT WITH SUSPECTED BREAST CANCER: A CASE REPORT

DESACORDO ENTRE A RELAÇÃO DO ACHADO BI-RADS® US 4B COM DESFECHO BENIGNO EM PACIENTE COM SUSPEITA DE CÂNCER DE MAMA: RELATO DE CASO

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ABSTRACT

Cancer is the leading cause of death worldwide. Breast cancer is the most prevalent among women, and in Brazil, it is the primary cause of cancer-related mortality in this population. During a gynecological consultation, a 29-year-old nulliparous woman reported right breast pain on palpation for the last seven days; the patient presented a palpable nodule in the inferomedial quadrant of the right breast during physical examination. Breast ultrasound (US) revealed a complex cystic-solid lesion, parallel to the skin, with indistinct margins, located at the 6 o'clock position in the right breast, measuring 2.4 x 1.1 x 0.9 cm (volume = 1.3 cm³), with Doppler-detected vascularization, and categorized as BI-RADS® 4B. A US-guided core biopsy was performed, yielding five tissue samples using a 14-gauge needle. The lesion was reclassified as BI-RADS® 4A after the biopsy. Histopathology analysis demonstrated an inflammatory process with abscess formation, usual ductal hyperplasia, and clustered cysts exhibiting apocrine metaplasia. A follow-up US was performed 30 days after the first examination to localize the lesion before excision, revealing no detectable nodule. A six-month follow-up US confirmed the absence of the lesion, with only residual cystic images. Disagreement in radiological reports may cause psychological stress for patients; thus, it is important to minimize the potential psychological harm due to breast cancer misdiagnosis.

Keywords: Breast cancer; Breast ultrasonography; Psychological stress.

RESUMO

Introdução: O câncer lidera as causas de morte no mundo e, entre mulheres, o tumor de mama é o mais prevalente. No Brasil, a neoplasia mamária é a maior causa de morte por câncer nas mulheres. Relato de caso: Paciente de 29 anos, nulípara, que em consulta ginecológica relatou dor à palpação em mama direita que durava sete dias. Foi percebido nódulo palpável em quadrante *infero-medial* da mama direita durante exame físico. A ultrassonografia (USG) descreveu imagem compatível com complexo sólido cístico, paralelo a pele, de margens não circunscritas localizada às 6h da mama direita medindo 2,4x1,1x0,9 (vol=1,3cm³), vascularizado ao Doppler, categorizado como BI-RADS 4B. Foi indicada investigação com CORE BYOPSY guiada por USG, onde foram retirados 5 fragmentos com agulha calibre 14 e com mudança de classificação para BI-RADS 4A. A histopatologia mostrou um processo inflamatório com abscedação, hiperplasia ductal usual, típica, focal, com cistos com metaplasia apócrina agrupados. Trinta dias após a primeira ultrassonografia ser realizada outra USG foi feita para marcação da lesão e exérese e não foi visualizado nódulo. O controle com USG seis meses após confirmou ausência de lesão, apenas com achado de imagem cística. Comentários: Persiste a preocupação de laudos radiológicos discrepantes causando estresse psicológico às pacientes. O intuito é evitar possíveis prejuízos psicológicos provocados pelo diagnóstico equivocado de câncer de mama.

Palavras-chave: Neoplasia de mama; Ultrassonografia mamária; Estresse psicológico.

INTRODUCTION

Cancer is the leading cause of mortality worldwide. Breast cancer is the most prevalent among women, and in Brazil, it represents the primary cause of cancer-related death in this population¹.

The development of breast cancer is multifactorial, including biological and environmental factors, such as age, endocrine, and genetic components. Genetic predisposition accounts for about 5% to 10% of total cases². Most breast cancers are diagnosed at a subclinical stage via routine mammography or population-based screening programs.

Breast cancer can also be detected by breast self-examination, mammography, or ultrasound (US) and confirmed using biopsy³. Delay in the diagnosis often leads to worse prognoses.

In the United States, early detection has led to a mortality reduction of 30% and 19% in women aged over 50 and 40 to 49 years, respectively. The Breast Imaging Reporting and Data System Ultrasonographic (BI-RADS® US™) was implemented to standardize breast imaging reports, terminology, and management recommendations, as endorsed by the American College of Radiology².

Once imaging findings suggest malignancy and the diagnosis is confirmed by biopsy, treatment options include chemotherapy, radiotherapy, hormone therapy, or surgery (mastectomy, quadrantectomy) 5.

The BI-RADS® US™ system classifies US findings on a scale of 0 to 6, with stage 4 subdivided to refine the probability of malignancy and guide clinical management.

Figure 1. Breast Imaging Reporting and Data System Ultrasonographic (BI-RADS® US™) rating scale.

Category		Management	Probability of cancer
0	Need additional imaging or prior examinations	Recall for additional imaging and/or await prior examinations	N/A
1	Negative	Routine screening	0%
2	Benign	Routine screening	0%
3	Probably benign	Short-interval follow-up or continued surveillance mammography	≤ 2%
4	Suspicious of malignancy	Tissue diagnosis	4A: 2% to 10% - low suspicion 4B: 10% to 50% - moderate suspicion 4C: 50% to 95% - high suspicion
5	Highly suggestive of malignancy	Tissue diagnosis	> 95%
6	Known biopsy-proven malignancy	Surgical excision when clinically appropriate	100%

CASE REPORT

This case report aimed to discuss the relationship between the BI-RADS®US 4B findings and a benign histopathological outcome in a patient with suspected breast cancer after US with the BI-RADS®US criteria.

During a gynecological consultation, a 29-year-old nulliparous woman reported pain on palpation in the right breast for the last seven days. Physical examination identified a palpable nodule in the inferomedial quadrant of the right breast.

The patient reported no family history of breast or ovarian cancer. Breast US, performed on the same day of gynecological consultation, identified a com-

plex cystic solid lesion, parallel to the skin, with indistinct margins located at the 6 o'clock position of the right breast, measuring 2.4 x 1.1 x 0.9 cm (volume = 1.3 cm³), exhibiting vascularization on Doppler assessment, and categorized as BI-RADS®4B. Two days later, a US-guided core needle biopsy was performed at a different facility by another specialist, obtaining five fragments using a 14-gauge needle, and the lesion was reclassified to BI-RADS®4A.

Histopathology revealed an inflammatory process with abscess formation, usual focal ductal hyperplasia, and clustered cysts exhibiting apocrine metaplasia. Thirty days after the first US, a subsequent US was performed for preoperative lesion localization, which showed no detectable nodule. A

follow-up US conducted six months later confirmed the absence of a lesion, revealing only cystic changes.

DISCUSSION

Disagreement in radiological reports is a concern due to the psychological stress caused to patients. Thus, it is important to minimize the potential psychological harm caused by breast cancer misdiagnosis.

Breast cancer diagnosis and mastectomy may cause most repercussions due to the impact on intimate and emotional feminine aspects, which can be intensified by a lack of knowledge about the disease, sounding like a death sentence. Feminine emotions are rarely considered by healthcare professionals, who focus more on the physical and biological aspects because they are more visible. However, the intrinsic link between body and mind warrants equal attention, as the diagnosis often induces lifestyle changes⁶.

Besides the physical effects, cancer diagnoses and the adverse effects of treatments cause a psychological burden on these women. Social stigma, fear of death, bodily mutilation, and perceived social devaluation lead to psychosocial difficulties for patients and their families⁵.

A cancer diagnosis confronts the patient with the question of the imponderable, finitude, and death⁴. The disease lethality and the physical losses imposed by treatment may cause a feeling of vulnerability and loss of control over life.

This case report highlights the importance of managing radiological reports that may cause disagreement to minimize psychological harm in patients undergoing cancer diagnosis, affecting the physical integrity (a primary patient concern) and the psychological self-image of the women and of their femininity, sexuality, and finitude of life.

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REFERENCES

1. Ohl, Isabella Cristina Barduchi, Ohl, Rosali Isabel Barduchi, Chavaglia, Suzel Regina Ribeiro, & Goldman, Rosely Erlach. Ações públicas para o controle do câncer de mama no Brasil: revisão integrativa. *Revista Brasileira de Enfer-*

magem. 2016. 69(4), 793-803.

2. Nazário, Afonso Celso Pinto, Facina, Gil, & Filassi, José Roberto. (2015). Breast cancer: news in diagnosis and treatment. *Revista da Associação Médica Brasileira.* 2015;61(6), 543-552. 2015.
3. Câncer de mama. Ministério da Saúde: Instituto Nacional do Câncer.
4. Rossi, Leandra e Santos, Manoel Antônio dos. Repercussões psicológicas do adoecimento e tratamento em mulheres acometidas pelo câncer de mama. *Psicol. cienc. prof.* [online]. 2003, vol.23, n.4.
5. Castro Filha Jurema Gonçalves Lopes de, Miranda Ana Karine Pires, Martins Júnior Francisco Farias, Costa Henrikson Araujo, Figueiredo Karla Régia Ferreira Viana, Oliveira Junior Mario Norberto Sevilio de et al . Influências do exercício físico na qualidade de vida em dois grupos de pacientes com câncer de mama. *Rev. Bras. Ciênc. Esporte* [Internet]. 2016 Jun [citado 2019 Jun 03] ; 38(2): 107-114.
6. Moura Fernanda Maria de Jesus Sousa de Pires, Silva Michelly Gomes da, Oliveira Suziane Carvalho de, Moura Lara de Jesus Sousa Pires de. Os sentimentos das mulheres pós-mastectomizadas. *Esc. Anna Nery* [Internet]. 2010 Set [citado 2019 Jun 03] ; 14(3): 477-484.