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Bilateral idiopathic granulomatous mastitis

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ABSTRACT

Objective: Report a patient's case with bilateral idiopathic granulomatous mastitis, with no recent history of pregnancy or breastfeeding. **Case Report:** 30-year-old white female patient, with 5 pregnancies and 5 childbirths, with the last pregnancy two years ago, without recent breastfeeding history. The patient was referred to specialized mastology service after treatment attempts without improvement. She presented three fistulized nodules in the left breast, painful and with purulent secretion. After a few monitorings with improvement and relapse charts in the left breast, she also presented involvement in the right breast, evidenced by histopathology, excluding other causes of granulomatous mastitis. **Final considerations:** This disease has uncertain treatment, that varies between expectant management, drug treatment and surgical interventions. The disease causes intense pain, has prolonged resolution and causes frustration to the doctor, who is often unable to solve the problem. It compromises the patient's quality of life and distorts her body image.

Keywords: Idiopathic granulomatous mastites, Breast, Breastfeeding, Resilience, Quality of life.

RESUMO

Objetivo: Relatar o caso de uma paciente com mastite granulomatosa idiopática bilateral, sem história recente de gestação ou amamentação. **Relato de Caso:** Paciente feminina, branca, 30 anos, com 5 gestações e 5 partos, com última gestação há dois anos, sem história recente de amamentação, foi encaminhada ao serviço especializado em mastologia após tentativas de tratamento sem melhora. Apresentou três nódulos fistulizados na mama esquerda, dolorosos e com secreção purulenta. Após alguns acompanhamentos com quadros de melhora e recidiva na mama esquerda, apresentou também envolvimento na mama direita, evidenciado pelo histopatológico, excluindo outras causas de mastite granulomatosa. **Considerações finais:** Esta doença tem tratamento incerto, que varia entre conduta expectante, tratamento medicamentoso e intervenções cirúrgicas. A doença causa dor intensa, tem resolução prolongada e causa frustração ao médico, que muitas vezes não consegue resolver o problema. Compromete a qualidade de vida da paciente e distorce sua imagem corporal.

Palavras-Chave: Mastite granulomatosa idiopática, Mama, Amamentação, Resiliência, Qualidade de vida.

RESUMEN

Objetivo: Reportar el caso de una paciente con mastitis granulomatosa idiopática bilateral, sin antecedentes recientes de embarazo o lactancia. **Reporte de Caso:** Mujer, 30 años, con 5 embarazos y 5 partos, con el último embarazo hace dos años, sin antecedentes recientes de lactancia materna. Fue enviada a un servicio especializado de mastología tras varios intentos de tratamiento sin mejoría. Presentaba tres nódulos en la

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mama izquierda, dolorosos y con secreción purulenta. Después de algunos controles con gráficos de mejoría y recaída en la mama izquierda, también presentó afectación en la mama derecha, evidenciada por histopatología, excluyendo otras causas de mastitis granulomatosa. **Consideraciones finales:** Esta enfermedad tiene un tratamiento incierto, que varía entre conducta expectante, tratamiento farmacológico e intervenciones quirúrgicas. Causa dolor intenso, tiene una resolución prolongada y genera frustración en el doctor, quien a menudo no logra resolver el problema. Compromete la calidad de vida de la paciente y distorsiona su imagen corporal.

Palabras clave: Mastitis granulomatosa idiopática, Mama, Lactancia materna, Resiliencia, Calidad de vida.

INTRODUCTION

Idiopathic granulomatous lobular mastitis, also named granulomatous lobular mastitis (GLM), is a rare chronic inflammatory disease of the breast (YUAN QQ, et al., 2022). It is a disease of unknown origin. It was first described in 1972 by Kessler and Wolloch as a disease that simulates inflammatory cancer (AYDIN I, et al., 2021). Its incidence has not been determined and in literature there are few studies about its incidence. It is determined as an inflammatory disease of the non-lactational breast, comprising only 0.44-1.6% of the sample collections of breast biopsy with pathological criteria. The age of involvement is approximately 30 to 40 years and in women in fertile age, common after childbirth. The pathology was found in all races. It is more commonly found in the Mediterranean, Asia and North Africa (JIAO Y, et al., 2023).

Its benign character and the incidence in young women makes it necessary to consider it in the differential spectrum of mastitis, therefore avoiding incorrect diagnostics and mutilating treatments (DILAVERI C, et al., 2024). It affects patients in reproductive age, with history of pregnancy and with clinical presentation of hardened nodules, with redness in the affected area, oftentimes painful, unilateral, palpable axillary lymph nodes and, in prolonged cases, abscesses, fistulas and ulcerations. The importance also lies in the difficulty distinguishing a malignant disease both clinically and through imaging tests (WIJESINGHE A, et al., 2024).

Idiopathic granulomatous mastitis requires biopsy since it is usually mistaken for cancer, although it is not cancerous and has no potential to be in the future. The pain it causes, the aesthetic deformity and the emotional suffering are all aspects punctuated from this pathology that must be observed, known and monitored in a multi-professional manner. Other pathologies may also take part in the differential diagnosis of idiopathic granulomatous mastitis, such as: breast inflammation caused by common infections, such as lactational mastitis, tuberculous mastitis, fungal mastitis, autoimmune diseases, systemic diseases, sarcoidosis, granulomatous mastitis due to diabetes mellitus, blastomycosis, histoplasmosis, actinomycosis, filariasis, cat scratch disease and cryptococcosis (JIAO Y, et al., 2023).

Idiopathic granulomatous mastitis (IGM) affects mostly women during the perimenopausal phase and is potentially associated with recent pregnancies and breastfeeding. The statistical information found was that, of the diseases histopathologically defined as breast inflammation, the chronic granulomatous form is responsible for 24% of the cases and that, among breast biopsies, granulomas correspond to 1% of the results (KRAWCZYK N, et al., 2024).

The recurrence rate is approximately 24.8%, and, when there are skin lesions, it suffers a greater rate of recurrence, usually keeping the patients under medical care for long periods (AZIZI A, et al., 2020). It affects the patient's quality of life since it interferes with her body image, causing scars, painful and recurring lesions that impede normal daily activities and sexual activities. Subjective well-being, the one evaluated from the patient's own perspective, is reduced, considering that the constant pain and relapses of this pathology become demotivating and cause discomfort. A bad body image can affect physical and psychological health, influencing self-esteem, competency, mood, social functioning and the carried out occupation in her profession (HOSSEINI SA e PADHY RK, 2023).

Women who have breast problems, such as breast cancer, tend to have a reduced quality of life and experience distressing symptoms such as fatigue (65%), insomnia (61%) and pain (60%) (ABDELRAHMAN SM, et al., 2025). Diseases such as cancer are associated with factors that are related to low quality of life. In health, quality of life can be divided into physical function, emotional function, social function, pain and fatigue (NAAMALA A, et al., 2024).

The reported case is about a young patient, white, non-smoking, with no history of recent pregnancy or breastfeeding, referred to specialized service presenting nodules and breast fistulas on the left and subsequent involvement of the right breast, with confirmed histopathological diagnosis of granulomatous mastitis, tested for fungi and AAFB through negative Groccott and Fite stains. This study was approved by the Ethics Committee of Research CAAE 90520618.7.0000.5355 and CEP 4266245.

CASE REPORT

Female patient, 30 years old, white, with 5 pregnancies and 5 childbirths, taking oral contraceptives, non-smoker and non-alcoholic, with no recent history of breastfeeding or pregnancy, no family history of breast cancer. She was referred to specialized service after visiting, in two months' time, the health center twice and the emergency room once, being treated with antibiotics and anti-inflammatories with no improvement in the presented case. Physical examination showed an area of hyperemia in the left breast, located in the lower quadrants and periareolar region, with dry skin rough appearance, painful on palpation. (**Figure 1**). Axillary mobile lymph nodes and painful on palpation. No involvement in the right breast.

She brought a breast ultrasound scan carried out one week before the appointment, which described: the presence of two somewhat nodular, ill-defined, discreetly hypoechogenic areas, with edema of adjacent planes, one of them occupying a great part of the SLQ (superolateral quadrant), measuring 34.3 x 15.1 x 28.9 mm, and the other retroareolar, measuring 24.7 x 17.1 x 21.2 mm, making it not possible to rule out the possibility of communication between both lesions. There was questioning on inflammatory or other collections, BI-RADS ultrasound category 4.

The patient underwent drainage of the area of hyperemia, the lower quadrants, the product of this drainage being the discharge of 4ml (four) of purulent secretion. It showed immediate improvement in the local pain. The use of antibiotics, analgesics and anti-inflammatories was prescribed and ice compresses were recommended.

On the follow-up appointment she presented improvement in clinical condition with a reduction in hyperemia and the opening of two holes in lower quadrants. (**Figure 1**). After two months, the patient returned with breast pain, to which the physical examination showed once again an area of hyperemia in the left breast, this time located in the union of the lateral quadrants and the areas of scarring in periareolar region and union of the lower quadrants. (**Figure 2**). She was again medicated with antibiotics, analgesics and anti-inflammatories, in addition to corticosteroids during 14 days this time.

In the follow-up, she showed improvement in the infectious condition and scarring lesions. (**Figure 2**). Due to a skin retraction aspect of the lesions, the patient underwent a core biopsy and a wedge of skin in the lower quadrant junction (LQJ) was removed. Blood tests were also requested, including hemogram, glycemia, ANF, HIV, VDRL, AST, ALT, GGT. There were no alterations or reactive results in the requested tests, while the core biopsy and breast skin biopsy are as follow: the histopathological findings, associated with the clinical data are compatible with granulomatous mastitis, search for fungi and AAFB using Groccott and Fite stains were negative, showing no malignant criteria in the material examined, skin with chronic and acute fistulized inflammation.

After three months the patient returned to the appointment presenting a new lesion in the right breast, with involvement of the skin and activation of a periareolar lesion in the left breast. (**Figure 3**). PPD (tuberculin skin test) and thorax radiography were requested and, once again, the blood tests described above. Corticosteroid therapy along with methotrexate and folic acid were prescribed. On the follow-up she presented improvement of lesions, without the appearance of new ones. The requested tests did not show alterations.

Currently, the patient continues being monitored in the service with continuous use of corticosteroid therapy (40mg of prednisone daily), folic acid, vitamin D and calcium. A reduction in the dose was attempted twice, worsening the clinical condition and reactivating the lesions. This dose was kept, with clinical monitoring and laboratory tests. She showed healed breast lesions, but with skin distortion. (**Figure 4**).

Figure 1 - Initial clinical presentation of idiopathic granulomatous mastitis in the left breast, being the left image before treatment and the right image after the treatment.

Source: Delgado CTMP e Bortolatto MO, 2025.

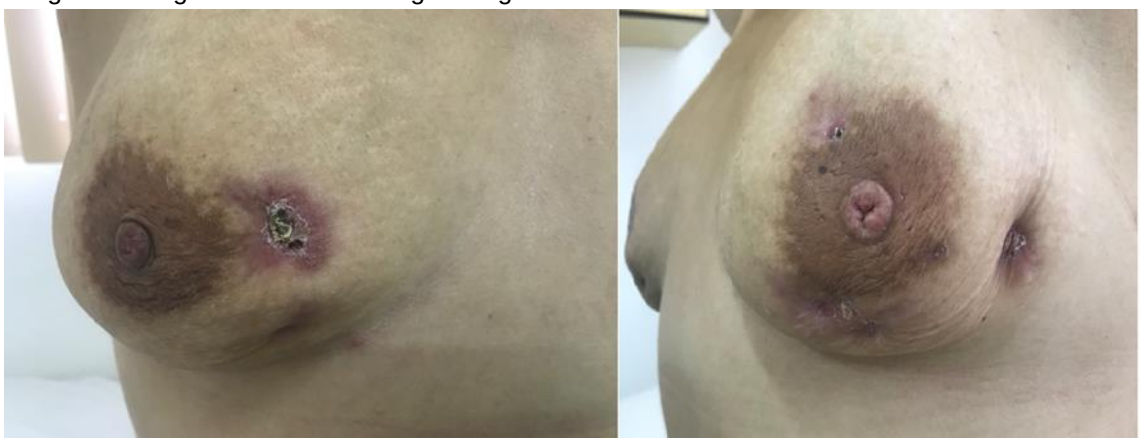
Figure 2 - Clinical presentation of idiopathic granulomatous mastitis in the left breast before treatment and the right image after the treatment.

Source: Delgado CTMP e Bortolatto MO, 2025.

Figure 3 - Clinical presentation of idiopathic granulomatous mastitis in both breasts, with involvement of the right breast; left image before treatment and right image after treatment.

Source: Delgado CTMP e Bortolatto MO, 2025.

Figure 4 - Image of the current clinical aspect of idiopathic granulomatous mastitis, being the left image of the right breast and the right image of the left breast.



Source: Delgado CTMP e Bortolatto MO, 2025.

DISCUSSION

Idiopathic granulomatous mastitis is a chronic inflammation of the breast, benign and rare, that presents an unknown cause. Various etiological possibilities have been considered: immune reactions, infectious diseases, hormonal disorders, becoming a diagnosis of exclusion as for: malignancy (breast cancer), infections (mastitis caused by tuberculosis) and systemic diseases that might favor its appearance. These pathologies must be discarded before concluding it is idiopathic granulomatous mastitis. The age of occurrence of this pathology is usually around 35 years old, in multiparous women and with emergence soon after the pregnancy. This disease does not increase the risk of breast cancer (LLANCARI PA, et al., 2023).

Chronic mastitis has lactational etiology, being a major challenge to diagnose (TAVARES MA, et al., 2024). Lactational mastitis usually occurs when there is an infection due to incorrect breastfeeding, caused by the entrance of bacteria in the breast. It affects the well-being of women and their babies, due to the interruption of breastfeeding that can occur, but it is a common condition (WILSON E, et al., 2020).

The described patient was not recently pregnant nor was she breastfeeding, since her last pregnancy occurred two years ago. This fact is not corroborated with literature. She did not present any systemic disease that may trigger any kind of mastitis. Tuberculous mastitis was ruled out by AAFB tests and also possible fungal diseases.

Idiopathic granulomatous mastitis (IGM) is a cause of abscesses and rare breast tumors. It is considered significant in a portion of mastitis cases and the histopathological study is essential for diagnosis, as well as breast ultrasound to aid in the imaging evaluation (TAVARES MA, et al., 2024).

The imaging findings, along with the clinical findings, can mimic a malignant neoplasm in idiopathic granulomatous mastitis, for this reason, this pathology must be remembered. The pathology is frequently unilateral, but in up to 25% of cases it can involve bilaterally and, in such cases, increase the chance of recurrence and resistance to treatment. As it is shown in the reported case of constant relapse and treatment resistance, as described in literature (GRAZIANO L, et al., 2016).

Imaging tests are non-specific and may even mimic breast cancer. On mammography, focal asymmetry is common, not associated to microcalcifications or distortions, nodules with defined margins being infrequent. In ultrasonographic findings one or more irregular hypoechoic masses can be found, accompanied by increased echogenicity of the parenchyma, with no posterior acoustic shadow, and Doppler may show increased vascularization (GRAZIANO L, et al., 2016). In the case in question, although bilateral mammography and bilateral breast ultrasound were requested, the patient refused to carry them out, claiming intense pain that made it impossible. Moving straight to core biopsy of the lesion in both breasts.

More than 50% of idiopathic granulomatous mastitis cases are mistaken for other pathologies, including breast cancer. Which makes its therapy a great challenge. Antibiotic therapy is offered, but in some cases, mainly the recurrent ones, may end up in surgeries of partial or total removal of the breast, even though there is no consensus about the treatment that best suits this pathology. The ones who opt for surgical excision report a high percentage of relapse when compared to corticosteroids. More studies on the matter of the treatment of this pathology are needed (LLANCARI PA, et al., 2023).

The main characteristics of idiopathic granulomatous mastitis are nodules, redness, pain, previous history of pregnancy or lactation, fertile age. Aspects can be compatible with carcinoma both clinically and through imaging tests, such as bilateral mammography. Aspects can be compatible with lactational mastitis (with the difference that the patient will be breastfeeding) and resolution is fast, carried out with antibiotic therapy and with no recurrences. Aspects may be similar to tuberculous or autoimmune mastitis, among others. However, these are discarded before closing the diagnosis of idiopathic granulomatous mastitis, since it is a diagnosis by exclusion (DILAVERI C, et al, 2024).

Treatments for idiopathic granulomatous mastitis can be classified into expectant, medication (antibiotic, immunosuppressants, anti-inflammatories, corticosteroids) and surgical (partial or total exeresis of the lesion) (LLANCARI PA, et al., 2023). Psychological therapies, for example: Positive Psychology, may also help.

The proposed treatment was antibiotic therapy with benzathine penicillin 1,200,000 IU intramuscularly in a single dose and drainage of the purulent lesion. Immediate pain relief and improvement in the lesion were obtained, in addition to paracetamol 500mg and diclofenac sodium for 14 days, plus local ice compresses every 2 hours for 10 minutes.

On the next recurrences, methotrexate was attempted with no response. The same dose of antibiotic therapy was resumed, in addition to corticosteroids (prednisone 20mg) for 14 days, while analgesics and anti-inflammatories were maintained.

Contact with fellow mastologists was made due to frustration with poor response to the results and progress. Some of them advised for breast exeresis. In the appointment in which this course of action would be advised to the patient, about the mastectomy of the involved breast, idiopathic granulomatous mastitis appeared on the other side (the right one). Treatment was thus maintained with monthly injectable antibiotic therapy and analgesics and anti-inflammatories.

It was noticed that when she was going through a moment of difficulty in her life, lesions got worse, for example: she lost her job and had difficulty finding another one, and they got a little better when something good was happening, such as getting interested in a partner, and then got worse again because she thought of the breast with those lesions and how she would get involved with someone being like that. These are just situations observed during the appointments in this case.

An approach to this pathology is the addition of positive psychology, where the positive aspects and human potentialities are reinforced, such as: happiness, optimism, spirituality, factors that affect well-being (DURGANTE HB e DELL'AGLIO DD, 2022). It would certainly produce less stress to the cells of our organism and with this we could have a reduction in relapses or even the emergence of the disease. Studies in this area must be carried out. Health is not just about physical well-being. Studies show that, nowadays, we have to work in teams to provide better qualified care for our patients.

Resilience has an important buffering function in the adversities of daily self-care, helping to maintain physical and emotional well-being. Even though there is still no consensus on the concept of resilience. Currently in health care a proposition that is being used for its definition is that it should be seen as an integrated process with interactions of: social, community, family, individual, physiological and cellular factors. Where the patient may reduce the potential damage capacity of a challenge, reach a state of emotional impairment after the challenge and go back to the original or even a superior emotional state after the compromised capacity due to the challenge (JIN Y, et al., 2023).

Strengthening resilience aids in preventing disease emergence, offers good health, facilitating and accelerating healing, fulfills the provision of a productive life, a sense of well-being and accelerates healing, even in chronic diseases, such as idiopathic granulomatous mastitis (BABIC R, et al., 2020).

By considering resilience as a dynamic process, healthcare professionals can benefit from it and improve their work-related well-being and productivity. When the institution works on the resilience of the professional, it helps to reduce their frustrations regarding the outcome of a treatment that was not expected (HOLLAR, et al., 2025).

In patients who present normal cognition and perceptual distortions in clinical conditions, such as the case of cicatricial deformities on both breasts, it is important to have an approach of these worries with body image, making it possible for the patient who suffers from this pathology to take a more productive and satisfied life (HOSSEINI SA e PADHY RK, 2023).

The implementation of interventions to improve quality of life in health that reduce inequalities and offer global health is important, impacting sociodemographic, clinical and behavioral factors (CAMPOS AAL, et al., 2024). Continuous monitoring of the patient's requests, providing information and understanding their psychosocial needs, is important for professionals to help improve women's quality of life and then develop a support system for them (HASAN S, CHEW KS, 2024).

Idiopathic granulomatous mastitis remains an enigma on its etiology and treatment, existing no consensus of right or wrong. Professionals get frustrated along with their patients, and it is necessary to search for other ways of dealing with this pathology, such as the support of positive psychology.

Idiopathic granulomatous mastitis still presents itself as a disease of both unknown etiology and uncertain treatment, leading various health professionals to frustration. As for the patient, expectations are created with improvement and quality of life and subjective well-being are lost in the face of relapses. The lack of findings on its etiology and appropriate treatment approach makes participatory dialog with the patient very difficult. Working on reinforcement of resilience in patients who suffer from this pathology is one of the ways to aid them. One must try to work more in a multidisciplinary team to deal with this still mysterious and painful pathology in all its forms, whether physical, emotional or social and take a multidimensional vision of what it encompasses.

REFERENCES

1. ABDELRAHMAN SM, et al. Factors affecting quality of life in women post mastectomy for breast cancer in Baheya Foundation (Egypt): 'A retrospective cohort study'. BMC Womens Health, 2025, 25(1): 43.
2. AYDIN I, et al. Idiopathic Granulomatous Lobular Mastitis: An Imitation of Breast Carcinoma. Cureus, 2021, 13(5): e15206.
3. AZIZI A, et al. Idiopathic granulomatous mastitis: Management and predictors of recurrence in 474 patients. Breast J, 2020, 26(7): 1358-1362.
4. BABIC R, et al. Resilience in Health and Illness. Psychiatr Danub, 2020, 32(Suppl 2): 226-232.
5. CAMPOS AAL, et al. Quality of life of women who underwent breast cancer treatment relative to sociodemographic, behavioral, and clinical factors. Einstein (São Paulo), 2024,22: eAO0585.
6. DILAVERI C, et al. Idiopathic Granulomatous Mastitis. Breast J, 2024, 6693720.
7. DURGANTE HB, DELL'AGLIO DD. Adaptação para implementação online de uma intervenção em Psicologia Positiva para a promoção de saúde. Cienc Psicol, 2022; 16(2), e2250.
8. GRAZIANO L, et al. Imaging features of idiopathic granulomatous mastites – Case report. Revista da Associação Médica Brasileira, 2016, 62(4): 303-306.
9. HASAN S, CHEW KS. Unmet Psychosocial Needs and Quality of Life of Young Women with Breast Cancer: A Scoping Systematic Review. Asian Pac J Cancer Prev, 2024, 25(11): 3781-3788.
10. HOLLAAR MHL, et al. Resilience-based interventions in the public sector workplace: a systematic review. BMC Public Health, 2025, 25(1): 350.

11. HOSSEINI SA, PADHY RK. Body Image Distortion (Archived). 2023. In: StatPearls StatPearls Publishing.
12. JIAO Y, et al. Identification of periductal mastitis and granulomatous lobular mastitis: a literature review. Ann Transl Med, 2023, 11(3): 158.
13. JIN Y, et al. Relationship between resilience and self-care in people with chronic conditions: A systematic review and meta-analysis. J Clin Nurs, 2023, 32(9-10): 2041-2055.
14. KRAWCZYK N, et al. Idiopathic Granulomatous Mastitis as a Benign Condition Mimicking Inflammatory Breast Cancer: Current Status, Knowledge Gaps and Rationale for the GRAMAREG Study (EUBREAST-15). Cancers (Basel), 2024,16(19): 3387.
15. LLANCARI PA, et al. Treatment and Management Experience of Idiopathic Granulomatous Mastitis in a Low-income Country. Rev Bras Ginecol Obstet, 2023, 45(6) :319-324.
16. NAAMALA A, et al. Health-related quality of life among adult patients with cancer in Uganda - a cross-sectional study. Glob Health Action, 2024, 17(1): 2325728.
17. TAVARES MA, et al. Nonlactational Mastitis in Western Brazilian Amazon Mastitis Cases. Am J Trop Med Hyg, 2024, 111(6): 1259-1264.
18. WIJESINGHE A, et al. The Use of Intralesional Corticosteroids in Idiopathic Granulomatous Mastitis: A Systematic Review. Eur J Breast Health, 2024, 20(4): 233-240.
19. WILSON E, et al. Incidence of and Risk Factors for Lactational Mastitis: A Systematic Review. J Hum Lact, 2020, 36(4): 673-686.
20. YUAN QQ, et al. Correction: Management of granulomatous lobular mastitis: an international multidisciplinary consensus (2021 edition). Mil Med Res, 2022, 9(1): 47.