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Case Report

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Granulomatous mastitis: about 2 clinical cases in the mastology unit of the Hospital de Clinicas, Uruguay

Summary

Introduction: Granulomatous mastitis is a benign inflammatory disease of the breast, first described in 1972. It is a low incidence disease that occurs more frequently in premenopausal women. Its clinical presentation is nonspecific and can be confused with other more frequent clinical entities.

Objectives: The aim of the present work is to report two clinical cases of a rare entity, providing an update on the subject.

Clinical case: Female patient consulted for painful breast lump with flushing, local heat and fever. With a clinical diagnosis of mastitis, antibiotic treatment and drainage of seropurulent material was started and cultured, without microbiological development. Given the poor evolution, a CORE biopsy was requested and confirmed granulomatous mastitis.

Discussion and conclusion: Granulomatous mastitis is a benign breast disease with a nonspecific clinical and imaging presentation. High suspicion of this pathology is essential in patients diagnosed with mastitis or recurrent breast abscesses with poor evolution under antibiotic treatment. A biopsy is essential in these patients to confirm the diagnosis and to rule out other more frequent and potentially serious pathologies such as breast cancer.

Keywords: granulomatous mastitis, inflammatory breast cancer, corticosteroid therapy

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Guarneri C,[1] Pienovi A,[2] Andrade R[3]
[1]Assistant of General Surgery, Mastologist, Surgical Clinic A- Hospital de Clínicas, School of Medicine, University of the Republic, Uruguay
[2]General Surgery Resident, Surgical Clinic A-Hospital de Clínicas, School of Medicine, University of the Republic, Uruguay
[3]Assistant Professor of Internal Medicine, Medical Clinic A- Hospital de Clínicas, School of Medicine, University of the Republic, Uruguay

Correspondence: Guarneri Carolina, General Surgeon, Mastologist, Calle 20 y 1b, Atlántida. Canelones, Uruguay, Tel +59895510112, Email carolaguarner@gmail.com

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Introduction

Granulomatous mastitis is a benign inflammatory disease of the breast, first described in 1972. It is a low incidence disease that occurs more frequently in premenopausal women. Its clinical presentation is nonspecific and can be confused with other more frequent clinical entities. It is important to achieve a timely diagnosis for early initiation of specific treatment, since this allows in the short or medium term a complete remission of the disease, understood as the disappearance of symptoms with normal imaging control.

Clinical case 1

A 32-year-old female patient consulted for a painful lump in the lower outer quadrant of the left breast with flushing, local heat and fever. With a clinical diagnosis of mastitis, antibiotic treatment and drainage of seropurulent material was started and cultured, without microbiological development. She presented poor evolution with persistence of symptoms and was referred to our center.

Magnetic resonance imaging (MRI) of the breast reported an extensive area of non-nodular enhancement in the outer quadrants of the left breast of approximately 60 mm in extension, with multiple ring-like enhancements in its interior, which were interpreted as probable collections. She associated thickening of the dermal plane and adenopathies of up to 15 mm in the left axillary region, of reactive/inflammatory aspect. Bi RADS 2.

It was decided to perform CORE of the mammary lump, showing pathological anatomy, non-necrotizing granulomas with associated multinucleated giant cells compatible with non-necrotizing granulomatous mastitis. PAS, GRAM and Zieel nielsen stains were negative.

With a diagnosis of granulomatous mastitis, it was decided to start corticosteroid treatment with prednisone 60 mg per day for 4 weeks, presenting clear improvement of the symptoms, with a decrease in the size of the mammary tumor, disappearance of the fluxive signs and pain. Subsequently, treatment with Azathioprine 50 mg per day was started due to the patient's desire for conception, with progressive reduction of the dose of corticoids. After one month of treatment with azathioprine, the tumor was completely remitted.

Clinical case 2

A 34-year-old female patient consulted for a tumor in the upper inner quadrant of the left breast, 2 cm in diameter, fluctuating, painful on palpation, with heat, local redness and retraction of the homolateral nipple of one month of evolution. With the suggestion of breast abscess, an ultrasound was performed which confirmed the suggestion. The patient received multiple antibiotic plans without improvement, so drainage was performed with poor evolution, persistence of the collection and suppuration at the puncture site. A sample was taken for culture of the material obtained, without microbiological development.

Given the diagnostic suspicion of non-infectious etiology mastitis, a CORE biopsy was requested, which ruled out malignancy and confirmed chronic granulosa mastitis, with no evidence of microorganisms. Treatment with Prednisone and methotrexate was started with regression in number and size of bilateral collected processes. Currently (3 months later) in complete remission of the disease.

Discussion

First described in 1972[1] remains a diagnostic and therapeutic challenge. Granulomatous mastitis is a benign breast disease with a nonspecific clinical and imaging presentation. Knowledge regarding etiology continues to generate controversy. The most accepted pathogenic sequences suggest that it starts with damage to the ductal epithelium, local inflammation, migration of macrophages and lymphocytes followed by a local granulomatous inflammatory response.

Histologically it is characterized by the presence of non-caseating granulomas formed by multinucleated giant cells and epithelioid cells, limited to the mammary gland with microabscesses.[2] The challenge for the pathologist and physician is to differentiate granulomatosis mamma from other autoimmune and granulomatous diseases, such as tuberculosis, sarcoidosis and Wegener's granulomatosis. Other differential diagnoses include histoplasmosis, actinomycosis, foreign body reaction, fat necrosis, IgG4-RD mastitis and inflammatory breast cancer.[3]

Idiopathic and specific forms of presentation stand out. The latter develops in the context of tuberculosis, syphilis, Cornybacterium, foreign body reaction, vasculitis, sarcoidosis or parasite infection.[4] Clinically it may manifest with the presence of a lump, pain and local erythema. It can present unilaterally or bilaterally, in some cases the patient may present with fever or skin complications such as fistulas or ulcers. It is frequently confused with other more prevalent clinical entities such as infectious mastitis, breast abscesses and breast cancer. For this reason it is common for patients to have received multiple frusive antibiotic treatments. The greatest controversy lies in the therapeutic approach, which ranges from simple observation to resective surgical treatment.

There is no standardized treatment for this disease, some observational studies carried out in different countries such as China and Israel showed spontaneous remission of the disease in 50% of their patients.[5] Surgical treatment does not guarantee complete remission and may present complications such as fistula formation, since there is a recurrence of 16-50% of cases.[6] Aghajanzadeh et al.,[7] in one of the largest series published to date, propose the use of systemic corticosteroids with good results. Corticosteroid treatment can be used as primary treatment, since it has been shown to reduce the size of tumors.[8] The use of corticosteroids is recommended initially at high doses for 3 to 6 months, depending on the clinical presentation, leaving surgery for cases of poor response to conservative treatment. The proposal is to perform 30 mg of prednisolone twice a day for 2 weeks, gradually decreasing according to clinical findings.[9] Other immunosuppressive agents such as Methotrexate can be used to reduce the use of corticosteroids.

Conclusion

It is essential to have a high suspicion of this pathology in patients diagnosed with mastitis or recurrent breast abscesses with poor evolution under antibiotic treatment. Biopsy is essential in these patients to confirm the diagnosis and to rule out other more frequent and potentially serious pathologies such as breast cancer. There is no standardization of treatment, being initially conservative medical treatment in the vast majority of patients.

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None.

Conflicts of interest

Authors declare that there is no conflict of interest.

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