Learning from errors

Idiopathic granulomatous mastitis

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Summary

Idiopathic granulomatous mastitis (IGM) is a rare chronic benign disease of the breast. Histologically, the disease presents as an inflammatory reaction with non-caseating granulomas considered characteristic for IGM. IGM is often confused with breast cancer or mastitis with abscesses, and is treated with surgery which involves mutilation of the breast. Although no consensus exists on the best treatment modality, the use of low-dose oral and topical steroids has proven efficacy.

BACKGROUND

We think this case is important because the diagnosis is too often delayed or missed. In this case, 16 months passed before correct diagnosis is done.

CASE PRESENTATION

The patient is a 37-year-old G3P3A0, who gave birth to her last baby 3 years before the actual presentation. She had been lactating 1 year without problems. She has no medically relevant history and is using combined oral contraception medication. About 16 months earlier, she consulted elsewhere for redness, pain and swelling of her right breast. Mammography and ultrasound suggested mastitis with abscesses. Surgical excision was performed, but no biopsies for histological confirmation were sent in. Two months after the first excision, the same problem returned resulting in three further excisions, ending up with a major wound infection, necessitating 3 months of antibiotics. Bacterial cultures never demonstrated any pathogenic bacteria. As on ultrasound, new abscesses were noted and a fifth surgical excision was planned. At that moment, the patient visited our clinic for a second opinion.

INVESTIGATIONS

On clinical examination, the right breast was deformed owing to surgery and scar formation. Two places on the

lateral side of the breast were more hard and painful, without redness nor warmth. MRI of the breast demonstrated two inflammatory regions (figure 1). Mammography showed a single nodule in the superolateral quadrant of the right breast without signs of malignancy (figure 2). On ultrasound, different hyporeflexive areas with benign aspect were noted (figure 3).

Fine needle aspiration and seven core biopsies were performed, showing inflammatory cells without atypia and fibroadipous tissue with granulomatous inflammation (figure 4). Different non-caseating granulomata were visualised (figure 5) and idiopathic granulomatous was diagnosed.

Figure 1 MRI before treatment.

Figure 2 Mammography before treatment.

Figure 3 Breast ultrasound before treatment.

DIFFERENTIAL DIAGNOSIS

- Mastitis with abscessations
- Breast cancer/mastitis carcinomatosa

TREATMENT

Because of the non-succesful previous surgical excisions, we did not consider further excision an option. We considered both methotrexate and steroids and discussed these options with the patient. After discussion, it was decided to treat with oral methylprednisolone for 6 weeks. Except for hot flushes and some nausea, no side effects were noted.

OUTCOME AND FOLLOW-UP

The patient was treated with 32 mg oral methylprednisolone a day for 2 weeks, after which the pain and swelling resolved. Prednisolon was continued at 16 mg daily for 2 more weeks after which an ultrasound showed progressive resolution of the hypoechoic noduli (figure 6). After two more weeks of 8 mg prednisolon, MRI demonstrated the absence of inflammation (figure 7).

DISCUSSION

Idiopathic granulomatous mastitis was first described as a clinical entity by Kessler and Wolloch¹. It is a benign,

Figure 4 Histology: typical granulomatous inflammation.

Figure 5 Histology: typical non-caseating granulomas.

chronic and rare breast disease that histologically presents with non-caseating granulomas. It can easily be confused with breast cancer and with mastitis and abscessations, both clinically and radiologically.² Although its aetiology has not been explained definitively, various factors including autoimmunity are probably involved. No consensus exists on the best treatment modality for the disease.³ We present a case that was successfully treated with oral corticosteroids after failed repetitive surgical excisions.

Figure 6 Ultrasound after treatment, decreasing noduli.

Figure 7 MRI after treatment.

Learning points

- ▶ Idiopathic granulomatous mastitis (IGM) should be differentiated from breast cancer and infectious mastitis with abscedation.
- ▶ In the case of repetitive breast 'abscesses' not responsive to antibiotics and surgery, IGM should be considered.
- ▶ Corticosteroids should be considered in the management of IGM.

Competing interests None.

Patient consent Obtained.

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