



Is erythema nodosum coexisting with lesions of the breast a suggestive sign for idiopathic granulomatous mastitis?

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ABSTRACT

Coexistence of idiopathic granulomatous mastitis and erythema nodosum is very unusual. In this paper, we present a patient with idiopathic granulomatous mastitis accompanied by erythema nodosum to highlight the diagnostic importance of erythema nodosum and its relationship with treatment response of breast lesion. A 39-year-old female with a breast lesion and erythema nodosum was started on treatment with corticosteroids before the results of her histopathological evaluation were obtained. The response to treatment was very quick. Erythema nodosum totally disappeared and the breast lesion regressed noticeably within a week. We think that erythema nodosum associated with a breast lesion may be a sign suggestive of idiopathic granulomatous mastitis and can be used for the evaluation of the response to corticosteroid treatment. More case reports are needed to justify the use of erythema nodosum as a sign suggestive of idiopathic granulomatous mastitis.

Keywords: Corticosteroids, erythema nodosum, idiopathic granulomatous mastitis

INTRODUCTION

Although idiopathic granulomatous mastitis (IGM) is a very unusual disease worldwide, it is relatively common in Turkey, particularly in our region. Although erythema nodosum (EN) usually has no specific documented causes, it may be the first sign of a systemic disease (1). In the literature, a few case reports have shown that it can also occur in association with GM (2-4). GM has different treatment options, one of which is treatment with corticosteroids (2, 3). There are diagnostic challenges because GM can be easily confused with cancer. Therefore, a histological examination is essential for exact diagnosis. IGM is a diagnosis of exclusion because there are several processes, such as sarcoidosis or tuberculosis of the breast, that may induce GM. Evaluation can take quite a while (3). In some cases, the response to treatment can aid diagnosis. However, this response cannot be seen immediately, and some parameters are needed for its evaluation. Here we report a case of IGM associated with EN to present the diagnostic importance of EN and its relation with treatment response of breast lesion.

CASE PRESENTATION

In this study, after obtaining an informed consent, we present a 39-year-old female who was admitted to our clinic with breast and skin lesions. Her description revealed that she had observed a growing breast lesion 2 months ago and skin lesions few days ago on her legs (Figure 1a). On physical examination, the breast lesion was attached to the overlying skin, which was thickened and ulcerated. A mammogram revealed asymmetric density in the retroareolar area and the upper and lower outer quadrants of the right breast (Figure 2). Ultrasonography showed multiple tubular, circumscribed heterogeneous hypoechoic masses with extension to the overlying skin, particularly in the lower outer quadrant of the right breast. The breast lesion was biopsied for exact histopathological diagnosis. At the same time, treatment with methylprednisolone was started at a dose of 0.5 mg/day, and the patient was hospitalized for evaluation of the response to treatment. Two days later, her skin lesions showed evident regression (Figure 1b). Then, her drugs were ordered, and she was discharged. Her pretibial skin lesions totally disappeared within a week (Figure 1c). Also, there was regression in the breast lesion, as observed at a follow-up 2 weeks later. Histopathological evaluation of the breast lesion confirmed our preliminary diagnosis of GM. Her treatment with corticosteroids was completed in 2 months. The patient showed complete remission 1 year later.

DISCUSSION

Erythema nodosum is a relatively common skin disorder, and it may be associated with many factors, including infections, sarcoidosis, rheumatologic diseases, inflammatory bowel diseases, medications, autoimmune disorders, pregnancy, and malignancies. EN has seldom been reported in association with IGM (2-4). Although it is not a frequent association, dermatologists should keep in mind that EN can be caused by IGM, and a breast examination should not be neglected in patients with EN.

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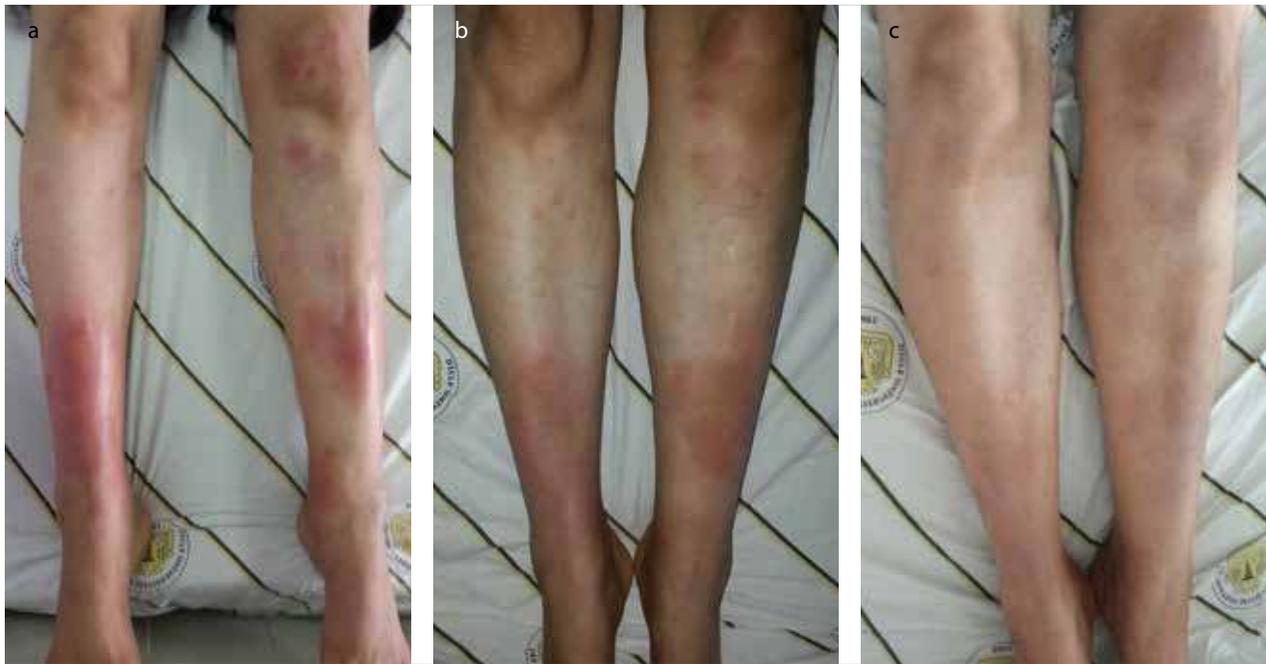


Figure 1. a-c. Pretibial erythematous nodules in the patient with granulomatous mastitis. Upon admission to the clinic (a), Two days after initiation of systemic corticosteroid treatment (b), One week after initiation of treatment (c)

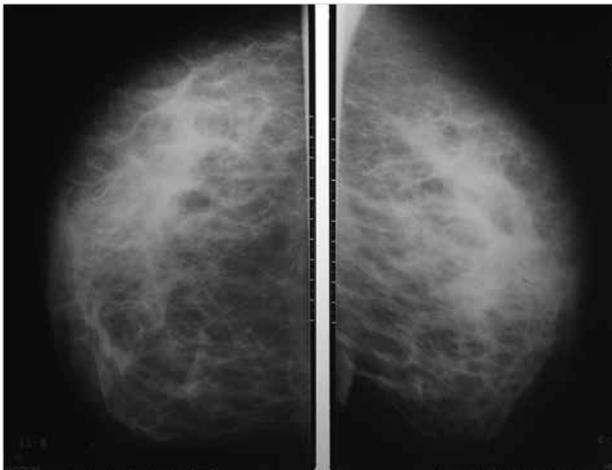


Figure 2. Asymmetric density in the retroareolar area and the upper and lower outer quadrants of the right breast on mammogram

In EN, pretibial involvement is most common, although the extensor surfaces of the forearm, thighs, and trunk also may be affected (5). Our patient had pretibial involvement.

Granulomatous mastitis has several treatment options, and although most cases respond to monotherapy, some patients require a combination of options (5). Our case was treated with systemic corticosteroids. EN tends to be self-limited, and the most common approach is treatment of any underlying disorders and supportive therapy. Systemic corticosteroids at 1 mg per kg body weight per day have been advocated as a relatively safe therapeutic option (1). Fortunately, the same steroid treatment can be used for GM (5).

In a histopathologically diagnosed previous case, we experienced that both breast and pretibial lesions in EN related to GM are very sensitive to treatment with corticosteroids (6). In this

case, we had initiated systemic corticosteroids without waiting for histopathological confirmation. The patient's response to the corticosteroid treatment supported our diagnosis. Association with EN has been stated to support an autoimmune pathogenesis in IGM (7). Response of IGM to treatment is not achieved in a short time period in every patient but that of IGM associated with EN may be good. If new cases in the literature support this result, EN may be viewed as a sign suggestive of GM, which can prevent delay of treatment until results of histopathological evaluation of the breast are available.

CONCLUSION

In conclusion, we suggest that EN can be not only used as a sign suggestive of GM but also for prediction of response to treatment. Considering these findings, it is for certain that more cases are necessary to support our speculation.

Informed Consent: Written informed consent was obtained from patient who participated in this case.

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