

## A rare case of idiopathic granulomatous mastitis associated with erythema nodosum

### *Eritema nodozumun eşlik ettiği nadir idyopatik granülomatöz mastit olgusu*

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#### ABSTRACT

Idiopathic granulomatous mastitis (IGM) is a rare benign chronic inflammatory disease. Etiology is unknown, but an autoimmune mechanism is suspected. Erythema nodosum is rare extramamillary manifestation of IGM, and few cases have been reported in the literature. In this study, we presented 28-year-old female patient with IGM associated with erythema nodosum. IGM can be caused by autoimmune mechanism and treated with steroid or surgical treatment. *J Clin Exp Invest* 2015; 6 (1): 84-85

**Key words:** Idiopathic granulomatous mastitis, erythema nodosum, steroid, surgery

#### ÖZET

İdyopatik granülomatöz mastit (İGM) nadir kronik inflamatuvar hastalıktır. Etiyolojisi bilinmemektedir, fakat otoimmün mekanizmadan şüphelenilmektedir. Eritema nodozum İGM'nin nadir meme dışı bulgusudur ve literatürde az sayıda vaka bildirilmiştir. Bu çalışmada 28 yaşında eritema nodozumun eşlik ettiği İGM vakasını sunduk. İGM otoimmün mekanizmayla oluşabilir ve steroid veya cerrahi yöntemle tedavi edilebilir.

**Anahtar kelimeler:** İdyopatik granülomatöz mastit, eritema nodozum, steroid, cerrahi

#### Dear Editor,

Idiopathic granulomatous mastitis (IGM) is a rare benign chronic inflammatory disease but clinic and radiologic findings mimic signs of breast cancer [1]. Although etiology is unknown, an autoimmune mechanism is suspected [2]. Erythema nodosum is rare extramamillary manifestations of IGM and few cases have been reported in the literature [3,4]. In this study, we presented patients who had IGM associated with erythema nodosum.

28-year-old female patient was admitted to the general surgery clinic with a mass in the left breast. Clinical examination revealed multiple erythematous nodules were present in both lower extremities and right forearm (Figure 1). She also had multinodular goiter. Breast US revealed ill-defined heterogeneous hypoechoic masses with tubular configuration in the left breast (Figure 2). MR showed 9 cm maximum sized mass with irregular shape, spiculated contour and heterogeneous enhancement (Figure 3). The lesion was attached the covering skin which was thickened and ulcerated. Tru-

cut biopsy was performed after breast ultrasound and MRI were performed. IGM diagnosis was confirmed by pathological evaluation. Steroid therapy showed dramatic regression both the mass of the breast and the lesions on extremities (Figure 4). Her steroid treatment completed in 2 months. Then remained small lesion was excised surgically when she operated on due to multinodular goiter. On one year follow-up, there was no problem both breast and extremities.

Multiple etiologies such as tuberculosis, sarcoidosis, foreign body reaction, and mycotic and parasitic infections have been suggested [6]. In addition, IGM has been associated with autoimmune diseases, e.g., erythema nodosum, lymphocytic alveolitis corresponding with sarcoidosis, Wegener granulomatosis, giant cell arteritis, or polyarteritis nodosa [2,6]. Hence, the consensus is that, it is an autoimmune disease of the breast [2]. IGM diagnosis is made by exclusion of other factors along with granulomatous inflammation [5]. Because the clinical and radiologic features of IGM can mimic other

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Received: 14.02.2015, Accepted: 28.02.2015

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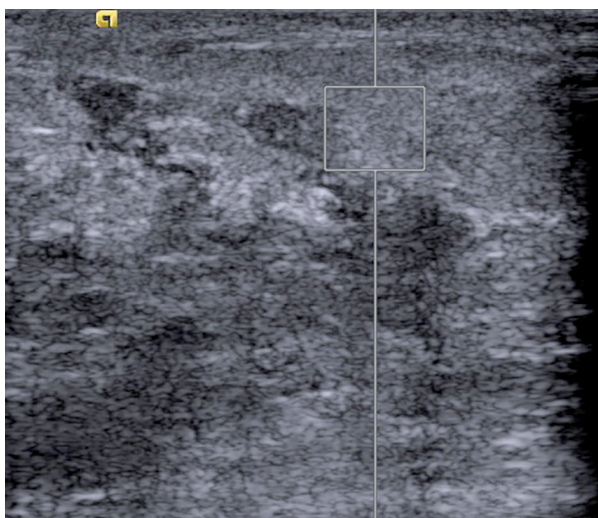
forms of mastitis and, most importantly, carcinoma-mastitis, tru-cut biopsy are required [6].

Controversy continues regarding the appropriate treatment for IGM. Surgical excision and steroid therapy are among the alternatives [7]. We started steroid treatment and saw fast recovery. After 2 months steroid treatment her lesion got smaller. She already needs operation for multinodular goiter and she had no cosmetic risk, so treatment option changed to surgery. One option should not be extended intendedly, treatment options should be determined according to examination on follow up.

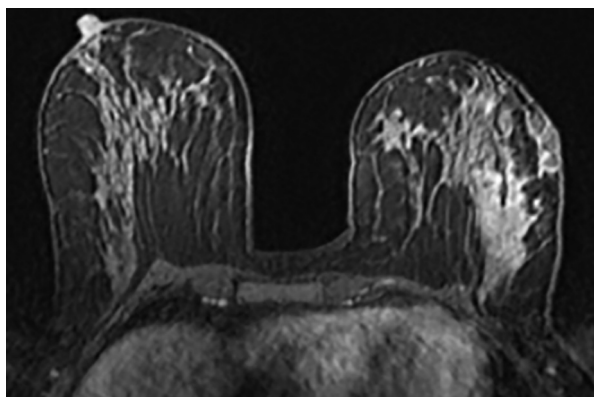
IGM can cause systemic reaction like erythema nodosum and both IGM and erythema nodosum can be treated with steroid. Surgical treatment is another option in IGM, it can be used as primary treatment modality or complementary to steroid treatment.



**Figure 1.** Erythema nodosum on right forearm



**Figure 2.** Ill-defined heterogeneous hypoechoic masses with tubular configuration in the left breast



**Figure 3.** The mass with irregular shape, spiculated contour and heterogeneous enhancement



**Figure 4.** The lesion disappeared two week after steroid treatment on right forearm

## REFERENCES

1. Diesing D, Axt-Fliedner R, Hornung D, et al. Granulomatous mastitis. *Arch Gynecol Obstet* 2004;269:233-236.
2. Olfatbakhsh A, Beheshtian T, Djavid GE. Granulomatous mastitis, erythema nodosum, and oligoarthritis in a pregnant woman. *Breast J* 2008;14:588-590
3. Adams DH, Hubscher SG, Scott DG. Granulomatous mastitis - a rare cause of erythema nodosum. *Postgrad Med J* 1987;63:581-582.
4. Salesi M, Karimifar M, Salimi F, Mahzouni P. A case of granulomatous mastitis with erythema nodosum and arthritis. *Rheumatol Int* 2011;31:1093-1095.
5. Azlina AF, Ariza Z, Arni T, Hisham AN. Chronic granulomatous mastitis: diagnostic and therapeutic considerations. *World J Surg* 2003;27:515-518.
6. Ocal K, Dag A, Turkmenoglu O, et al. Granulomatous mastitis: clinical, pathological features, and management. *Breast J* 2010;16:176-182.
7. Asoglu O, Ozmen V, Karanlik H, et al. Feasibility of surgical management in patients with granulomatous mastitis. *Breast J* 2005;11:108-114.