A rare case of idiopathic granulomatous mastitis associated with erythema nodosum

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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 extramammary 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.

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

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 extramammary 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. True-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
forms of mastitis and, most importantly, carcinomatous 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