

Diabetic mastopathy: A Case Report Clinically Mimicking Antibioma

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Case Report

Abstract: Diabetic mastopathy is not a very common disease entity that occurs in premenopausal females with long history of type 1 diabetes mellitus, even if the patient is on treatment. It can be associated with the microvascular complications of the diabetes or some autoimmune disorders. The complication of the condition is its tendency to recur hence close follow up of the patient is mandatory.

Keywords: Diabetic mastopathy, Recurrence, Type 1 diabetes mellitus.

Introduction

Diabetic mastopathy is a clinicopathologic entity based on the presence of benign fibro-inflammatory disease of the breast in patients with insulin dependent type I diabetes mellitus[1]. Here we report a case of diabetic mastopathy, clinically presenting as antibioma, in a 33 year old female with a 10 year history of insulin dependent type I diabetes mellitus. 33 years old female known diabetic for 10 years presented with a complaint of breast lump since 1 year, insidious in onset and painful. History of cyclical mastalgia was present and hence provisional diagnosis of fibroadenosis was made. On examination an ill defined lump of 6x4 cm was palpated over the upper medial and lateral quadrant. Patient was taking oral hypoglycemic agents for the past 10 years and recently she was started on insulin. Past history revealed excision of a similar swelling 1 year 4 months back for which the details could not be elicited. Per operative findings were of an indurated mass in the upper medial and lateral quadrant which was incised and 20-30ml pus was drained. The residual swelling was excised and sent for histopathological examination. Hence accordingly the clinical diagnosis of Antibioma breast was given. Grossly we received a soft tissue mass measuring 5.5x5x2 cm. Cut surface showed grey white areas admixed with yellowish fatty areas.(fig .1)



Figure 1: Gross picture shows grey white areas admixed with fatty areas

Microscopically, the sections studied show lobular atrophy with dense perilobular, periductal and perivascular lymphocytic infiltrate with variable number of plasma cells. The stroma showed extensive collagenisation with proliferation of fibroblasts. Also seen were areas of neovascularisation. (fig. 2 & 3) Hence the diagnosis of Diabetic mastopathy/sclerosing lymphocytic lobulitis was given.

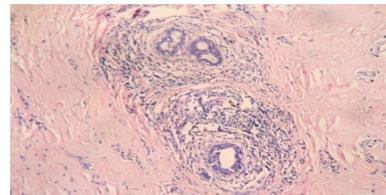


Figure 2: Show lobular atrophy with periductal, perilobular, perivascular lymphocytic infiltrate and stromal fibrosis

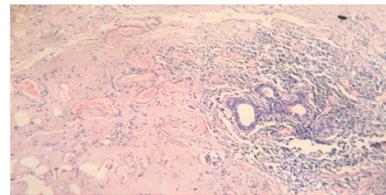


Figure 3: Shows increased areas on neovascularisation surrounding the atrophic lobules and within the stroma

Discussion

The first 12 cases of fibrous disease of the breast associated with insulin dependent type I diabetes mellitus were reported by Soler and Khardori in 1984[2]. Clinical

presentation of the condition can be variable with an ill defined nodularity to discrete palpable breast lumps. Our case presented with an ill defined breast lump. The pathogenesis of the condition is still not clear with a few theories that have been postulated for extensive stromal fibrosis are hyperglycemia resulting in abnormal extracellular matrix expansion triggering a secondary autoimmune reaction with B-cell proliferation and autoantibody formation [1,3,4]. The condition was associated with insulin dependent type I diabetes mellitus in our case similar to the other cases that have been reported in literature by Camuto P [4], Kudva YC [5], Foschini MP [6] and G. Neetu [7]. The patient was diagnosed with insulin dependent type I diabetes mellitus 10 years back following which she was put on oral hypoglycemic agents. According to Camuto P the duration of diabetes mellitus in his case studies was ranging between 4-43 years [4] and it was 15-36 years reported by Ely K [3]. Our case did not have any associated microvascular complications of diabetes mellitus. Whereas Ely K reported secondary complications of retinopathy, neuropathy and nephropathy in 11 of 14 cases of insulin dependent type I diabetes mellitus [3]. Most published reports of diabetic mastopathy affects premenopausal women with long history of insulin dependent type I diabetes mellitus complicated by diabetic retinopathy, neuropathy and nephropathy [4]. Our patient presented with recurrence of the breast lump which was excised 1 year 4 months back. Ely K also reported recurrence rate of 32% in his series which were ipsilateral, bilateral or contralateral [3]. Camuto P also reported recurrence in 4 cases during a mean follow up of 3.4 years [4]. The microscopic picture (fig 2 & 3) was similar to the case reports already reported – lobular atrophy, periductal, perilobular and perivascular lymphocytic infiltrate and prominent stromal fibrosis [3,4,5,7,8]. Hence it is important to diagnose a case of diabetic mastopathy in view of its tendency to recur. It may be associated with other autoimmune disorders of the thyroid gland like thyroiditis and systemic lupus erythematosus where they described the condition as

lymphocytic mastopathy [9,10]. G. Neetu reported diabetic mastopathy associated with insulin dependent type I diabetes mellitus, arthritis and thyrotoxicosis [7]. Our case was not associated with any autoimmune disorder. However this condition is not associated with an increased risk of malignancy on follow up [4,5].

Conclusion

Diabetic mastopathy occurs in premenopausal females with long standing type I diabetes mellitus with or without microvascular complications of the disease. In view of its tendency to recur, patients with diabetic mastopathy should be put on regular follow up.

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