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Case Report

Diabetic mastopathy

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ABSTRACT

Diabetic mastopathy is used to describe the breast related complications of diabetes mellitus. It is a benign breast disease. Its accurate diagnosis in appropriate clinical and radiological setting shall avoid unnecessary surgical excision. Authors report a case of 25 years old female, a known case of Type 1 diabetes mellitus who presented with a rare finding of diabetic mastopathy.

Keywords: Type 1 diabetes mellitus, Diabetic mastopathy, Diabetic neuropathy, Diabetic nephropathy

INTRODUCTION

Diabetic mastopathy has recently gained clinical importance. The term 'diabetic mastopathy' was coined by Byrad et al., to describe the presence of stromal fibrosis and perivascular lymphocytic infiltrates.[1] The risk of neoplasia in breast tissue affected by this disorder is not increased.[2] Therefore, awareness about this clinical entity is essential to avoid extensive surgical procedure. Authors report a case of diabetic mastopathy who was a known case of type 1 diabetes mellitus with diabetic nephropathy, diabetic retinopathy, diabetic neuropathy and diabetic dermopathy.

CASE REPORT

25 years old female presented to the emergency department with complain of decreased vision, hearing loss, bladder bowel incontinence, numbness over hands and feet, secondary amenorrhea and loss of pubic and axillary hair and mass bilateral breast. Her personal and family history was unremarkable.Her fasting plasma glucose level was 160 mg/dl and post prandial was 295 mg/dl, glycated hemoglobin (Hb A1C) was 7.5 , urinary microalbumin to creatinine ratio was 8796.30 , thyroid stimulating hormone (TSH), leutinizing hormone (LH), follicle stimulating hormone (FSH), prolactin levels were within normal limits.Patient had retinal detachment both eyes and left ear sensorineural hearing loss.

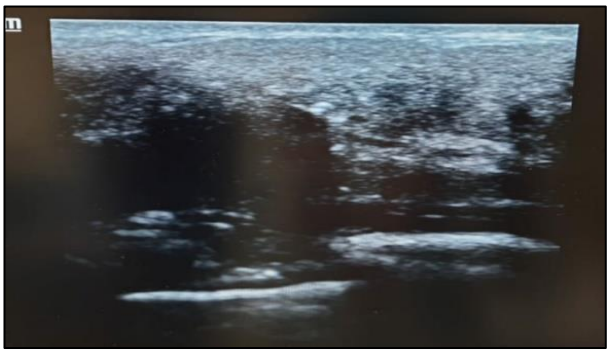

Figure 1: Sonomammogram of breast shows lesions of variable echogenicity with posterior acoustic shadowing.

On examination, there was a hard, irregular, mobile, painless nodule in both breast. Both nipples were retracted. There was no discharge, skin abnormality or any axillary lymphadenopathy.

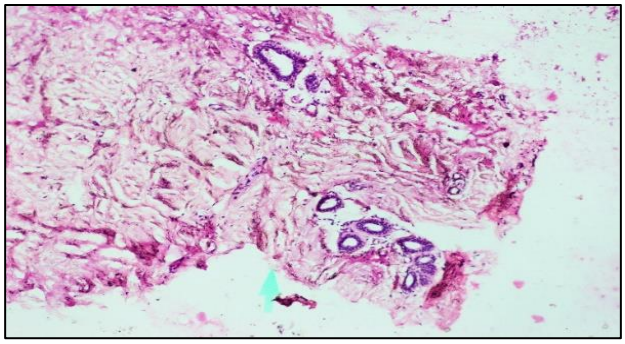

Figure 2: Biopsy specimen shows fibrous tissue with ducts lined by benign ductal cells.

Mammography showed calcification and radiodense lesions in whole of the breast parenchyma. Sonomammography revealed multiple well-defined lobulated lesions of variable echogenicity with posterior acoustic shadowing involving all quadrants of breast with no significant vascularity. FNAC was attempted but did not yield enough material for evaluation so a Trucut biopsy was performed to get a pathological diagnosis. Histological evaluation revealed fibrous tissue without any atypia or malignancy amidst few ducts lined by benign ductal cells.

DISCUSSION

With increasing prevalence of diabetes mellitus, diabetic mastopathy has recently gained significance. Benign breast disease that is associated with diabetes mellitus was first described by Soler et al in 1984 as dense fibrosis with lymphocytic infiltration afflicting the breast.[3] It occurs predominantly in type 1 diabetes. Most patients with diabetic mastopathy have other complications associated with diabetes such as diabetic retinopathy, diabetic nephropathy.[2] Clinical findings include single or multiple ill defined, non tender, palpable, firm to hard masses. The pathogenesis of this condition is believed to involve an autoimmune reaction to the accumulation of abnormal matrix induced by hyperglycaemia.[4] Mammography shows regional asymmetric increased opacity with ill defined margins in all lesions. Marked posterior acoustic shadowing is seen on ultrasonomammography.[5] Histologically, the tissue appears fibrotic with collagenous stromal and increased stromal spindle cells. Periductal, perivascular and lobular lymphoid infiltrates are often present.[6] Since it is benign breast disease, it is not recommended to perform open excision all biopsy if clinical and radiological features are suggestive of diabetic mastopathy.[7]

CONCLUSION

Diabetic mastopathy is a benign breast disease. Clinicians should be able to identify it in relevant clinical setting and be able to differentiate it from other premalignant and malignant conditions.

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REFERENCES

1. Byrd BF Jr, Hartmann WH, Graham LS, Hogle HH. Mastopathy in insulin-dependent diabetics. Ann Surg. 1987;205(5):529-32.
2. Kudva YC, Reynolds C, O'Brien T, Powell C, Oberg AL, Crotty TB. "Diabetic mastopathy," or sclerosing lymphocytic lobulitis, is strongly associated with type 1 diabetes. Diabetes Care. 2002;25(1):121-6.
3. Soler NG, Khardori R. Fibrous disease of the breast, thyroiditis, and cheiroarthropathy in type I diabetes mellitus. Lancet. 1984;1(8370):193-5.
4. Camuto PM, Zetrenne E, Ponn T. Diabetic Mastopathy: A Report of 5 Cases and a Review of the Literature. Arch Surg. 2000;135(10):1190-193.
5. Logan WW, Hoffman NY. Diabetic fibrous breast disease. Radiology. 1989;172(3):667-70.
6. Morgan MC, Weaver MG, Crowe JP, Abdul-Karim FW. Diabetic mastopathy: a clinicopathologic study in palpable and nonpalpable breast lesions. Mod Pathol. 1995;8(4):349-54.
7. Pojchamarnwiputh S, Muttarak M, Na-Chiangmai W, Chaiwun B. Benign breast lesions mimicking carcinoma at mammography. Singapore Med J. 2007;48(10):958-68.

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