Mixed mucinous carcinoma of male breast: a rare presentation

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Dear Sir,

Mucinous carcinoma in a male breast is extremely rare. Most of them are picked up on postoperative specimen of the breast tissue. There have been few cases of male pure mucinous carcinoma reported in the literature but mixed ductal and mucinous carcinoma of male breast is even rarer.

Case report

We report a case of 50-year-old male patient who presented with a lump around left breast of 5 weeks duration associated with pain for 1 week. He was fit and well apart from being hypertensive.

He underwent triple assessment with fine needle aspiration cytology (FNAC) and breast imaging. The mammogram (Fig. 1) and ultrasound both revealed an approximately 20 mm well defined mass posterior to right nipple at 6 o'clock position.

His FNAC was highly suspicious of malignancy C-4 and core biopsy revealed mucinous carcinoma of grade 1 (B5b).

Patient underwent right mastectomy with sentinel node biopsy and made an uneventful recovery.

His histology was reported as mixed ductal and mucinous

carcinoma (Fig. 2, 3), grade 2 with no microcalcification or multifocal lesion. All margins were clear with tumour being estrogen receptor (ER) positive.

He was later started on tamoxifen and follow up appointment in 1 year time was made for him.

Discussion

Male breast represent 1% of all cases of breast cancer [1]. The mean age of diagnosis for male breast carcinoma is

Fig. 1 Mammogram showing well defined and circumscribed lesion

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Fig. 2 Areas of mucinous carcinoma with small nests of epithelial cells showing some nuclear pleomorphism lying within lakes of Mucin H and E $\times 250$

Fig. 3 Solid area of ductal carcinoma with nuclear pleomorphism and little tubule formation H and E $\times 250$

65 years which is 5 years older than female breast cases.

Mucinous carcinoma of the breast (MCB) is a tumour containing large amounts of extracellular epithelial mucin surrounding and within tumour cells.

MCB can be divided into two groups: pure MCB, in which the entire tumour consists of tumour cells with excessive extracellular mucin surrounding them, and mixed MCB, in which the tumour also contains areas with infiltrating carcinoma devoid of extracellular mucin.

Mixed type is more aggressive than pure type and it is associated with relatively higher nodal metastasis [2].

Pure mucinous carcinoma present as well defined and circumscribed lesion on mammogram. It is relative isoechogenic to the fat surrounding the breast tissue and has well defined margins on ultrasound.

Mixed MCB, however, often shows an indistinct mammographic pattern. It also gives a hypoechogenic signal on ultrasonography (US). Because of inherent different pattern on mammogram and ultrasound, both these investigation should be performed in all cases.

The treatment is similar to female breast cancer being local clearance by mastectomy with axillary lymph node dissection or sentinel node biopsy based on experience with female breast cancers [3–5].

There is similar role for adjuvant therapy in male breast cancer as in female breast cancer. Hormonal therapy has been recommended in all receptor-positive patients and the response correlates with presence of receptors [4, 5].

The role of adjuvant chemotherapy is similar to female breast cancer in patient who is at high risk of recurrence and death from breast cancer [6].

Hormonal therapy, chemotherapy or combinations of both have been used with some success in patients with distant metastases [5].

Orchiectomy, adrenalectomy and hypophysectomy are rarely done today.

Surgical excision or radiation therapy combined with chemotherapy is recommended in locally recurrent disease [5].

There is no difference in tumour specific survival for man and women if they are matched for tumour stage and histology.

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