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CASE REPORT

Metastatic mucinous carcinoma of the eyelid

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Abstract

Metastatic eyelid tumours are rare and account for less than 2% of all eyelid neoplasms. We report a case of metastatic breast carcinoma to the eyelid in a 60-year-old Chinese lady presenting with a 2-year history of enlarging, painless nodular lower eyelid swelling. The 1 cm diameter lesion was provisionally diagnosed as a sebaceous cyst. However the excision biopsy revealed a mucinous carcinoma expressing oestrogen receptor protein. She had a past history of mastectomy one year previously and histology showed an infiltrating ductal carcinoma (oestrogen receptor status negative) without evidence of axillary lymph node metastasis. She had completed adjuvant radio- and chemotherapy. Further treatment of the current lesion involved a wide excision which did not show any residual malignancy. She had no other evidence of metastasis and was treated with letrozol. We highlight this case to create awareness among clinicians and opthalmologists on the possibility of metastatic disease as a cause of eyelid swelling, especially in patients with a history of cancer. It may also be the first sign of metastatic disease of an internal malignancy. A review of the literature is also presented.

Key words: mucinous carcinoma, metastases, eyelid, breast

INTRODUCTION

Metastatic tumours account for less than 2% of all eyelid neoplasms. The most common primary site appears to be the breast. Eyelid lesions are often initially misdiagnosed as chalazion, cyst, granuloma, xanthoma, or inflammation and the diagnosis is only made on biopsy.[1,2] This report documents metastatic mucinous breast carcinoma in the lower eyelid of a 60-year-old lady. A pubmed search suggests this to be the first reported case in Malaysia.

CASE REPORT

A 60-year-old lady presented with a painless, enlarging nodule of her left lower eyelid of 2 years duration. There was no bleeding but occasional discharge and itchiness were experienced. She was otherwise well. The 1 cm diameter eyelid lesion was provisionally diagnosed as a sebaceous cyst and excised.

Histopathological examination revealed a mucinous carcinoma with clusters of tumour cells floating within pools of mucin. There was mild nuclear pleomorphism. Mitotic figures were absent (Figure 1). The tumour cells expressed oestrogen receptor protein (ER) on immunohistochemistry. The eyelid tumour was suspected to be metastatic from a primary breast cancer.

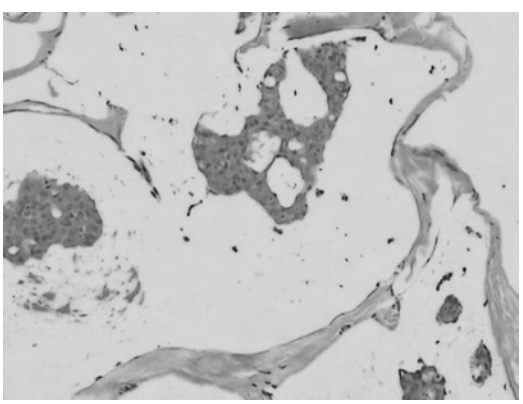

FIG. 1. Histopathology of the eyelid tumour showing clusters of tumour cells floating in pools of mucin. (H&E x 40)

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The patient had undergone a mastectomy one year previously and had completed adjuvant radio- and chemotherapy. The primary breast tumour was an infiltrating ductal carcinoma and was negative for expression of oestrogen receptor protein. The axillary lymph nodes were free of tumour metastasis.

Further treatment of the eyelid lesion involved a wide excision which showed no residual malignancy. She had no other evidence of metastasis. She was treated initially with tamoxifen and later switched to letrozol (an aromatase inhibitor) 2.5 mg daily. There has been no recurrence so far.

DISCUSSION

Metastatic malignancy to the eyelid is rare and are documented largely as single case reports. The largest reported study was conducted at the Armed Forces Institute of Pathology in 1987 in which there were 31 patients with metastatic disease to the eyelid.[1] Metastasis was found predominantly in women with a ratio of about 4 female: 1 male.[1,3] The median age was around 60 years.[3]

The majority of eyelid metastases are adenocarcinomas and the most common primary sites include breast (35%), skin (16%), gastrointestinal and urogenital tract (10% each).[1] Metastatic mucinous carcinoma is exceedingly rare.

Metastatic eyelid lesions may appear as nodules (60%), diffuse swellings (30%) or ulcerations (10%).[3] Most lesions are misdiagnosed as chalazion, cyst, granuloma and xanthoma and only about 30% are initially suspected to be metastatic.[1,2] Bilateral involvement is exceedingly rare.[4]

An eyelid lesion may be the first sign of metastasis from an unknown internal malignancy, and therefore part of generalized metastases. If the patient's history is accurate, the eyelid lesion was present about a year before her breast cancer was diagnosed and treated. The eyelid also appeared to be the only focus of distant metastasis in this patient. A few reports on metastasis to the eyelids developing many years after treatment of primary breast cancer, reiterates the need for a high index of clinical suspicion in such cases.[4,5,6]

The diagnosis is confirmed on histopathology. The origin of the primary tumour may be aided by the use of immunohistochemistry i.e antibodies to cytokeratins, epithelial membrane antigen and carcinoembryonic antigen, oestrogen receptor (ER) and progesterone receptor proteins. It was interesting to note in this case that the primary breast cancer was of infiltrating ductal carcinoma (not otherwise specified) and was ER negative, while the metastatic component was a mucinous carcinoma with ER expression.

Other primary tumours that have to be considered by the histopathologist, though rare, include mucinous carcinoma and sweat gland carcinoma of the eyelid.

Treatment is palliative and consists of excision or radiotherapy. A favourable response to anti-oestrogen therapy (tamoxifen) has been documented[5] but information on the usefulness of aromatase inhibitors (letrozol) is still unknown.

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