Breast cancer presenting as parotid tumour – first reported case in literature

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Abstract

Breast cancer presenting as parotid tumour is very rare. This is the first reported case in which parotid tumour was the presenting complaint of the patient. Since the patient was estrogen and progesterone receptor positive – was put on hormone therapy and responded well.

Keywords. Parotid tumour · Breast cancer

Introduction

Most tumours arising in the parotid gland are benign neoplasms, the commonest of which is pleomorphic adenoma.³ However, the parotid gland is also the salivary gland most often affected by secondary cancer deposits.⁴ The majority are melanomas, squamous cell carcinomas and basal cell carcinomas arising from the supraclavicular areas of the head and neck.^{4,7} Parotid metastases from distant infraclavicular sites are uncommon. We report a rare case of carcinoma breast with parotid secondaries.

Case report

A 63-year-old lady presented with swelling in the right parotid region since four years (Fig. 1). It was small to start with no associated pain and numbness. On examination, a 2 × 3 cm tumour was found in the right parotid region, which was non tender, firm, clinically in the superficial lobe of parotid, with no evidence of facial nerve palsy. A clinical diagnosis of pleomorphic adenoma parotid was made.

On systemic examination of the patient, a lump in the axillary tail of right breast (4 cm × 3 cm) was found, which the patient had not noticed (Fig. 2). FNAC of both the parotid swelling as well as the breast lump showed poorly differentiated adenocarcinoma. An incision biopsy of the breast lump was done, which showed features of poorly differentiated adenocarcinoma. Immunohistochemistry showed strong positivity for both estrogen receptor (ER), and progesterone receptor (PR), and negativity for Her-2neu. Further metastatic workup was negative.

Final diagnosis of Carcinoma breast (right) with isolated parotid metastasis was made. The patient was started on oral hormone therapy (anastrozole 1 mg OD). Follow up after three months showed reduction in the size of both the swellings.

Discussion

Breast cancer is one of the common cancers in urban India. Invasive breast cancer has the propensity to metastasize to distant sites through lymphatic and haematoge-

Fig. 1

Fig. 2

nous pathways. The commonest sites for distant metastasis are lung, bone, brain, liver and soft tissues.¹ The parotid

gland is a rare site for breast cancer metastasis.² Data from the salivary gland register at the University of Hamburg suggest that lung and kidney are two most common primary sites.⁶

Invasive breast cancer has the propensity to metastasize to any part of the body. The clinical pattern and site of recurrence may predict prognosis. Patients with a long disease-free interval after treatment of the primary cancer and patients with non-visceral metastatic deposits tend to have a better prognosis.¹ All cases reported in the literature presented primarily as carcinoma breast and had undergone full treatment for carcinoma breast before presenting later with parotid metastasis.⁶

The management of symptomatic breast metastases to distant sites is usually local radiotherapy or systemic therapy such as chemotherapy or hormone therapy. Palliative surgery can also play an important role in the management of specific localized problems such as bone, brain or lung metastases. In the case of parotid metastasis, achieving control is important because local progression can lead to significant morbidity with fungation and facial or sensory nerve involvement. The rarity of breast cancer with isolated parotid metastases precludes formulation of guidelines for management. Previously reported cases have all been managed on a case-by-case basis, including parotidectomy followed by radiotherapy.²

In our case, the patient had a slowly growing tumour, which was strongly ER and PR positive. We therefore started the patient on a trial of hormone therapy, to which she has responded well. This is the first case report in literature in which patient with breast cancer is presenting with parotid swelling.

Conflict of interest – the authors do not have any disclosable interest.

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