A Case of Adenoid Cystic Carcinoma Parotid with Perineural Spread

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Introduction

Adenoid cystic carcinoma (ACC) of salivary glands is a slow growing malignant tumour, characterized by wide local infiltration, perineural spread, a propensity to local recurrence and late distant metastases [1,7]. ACC is a rare tumour and forms about 1% of all malignant tumours of the oral and maxillofacial region [2]. ACC constitutes about 21.9% of all salivary gland malignancies [3]. ACC has three histopathologic patterns viz. tubular, cribriform and a solid pattern. Solid pattern is associated with increased local recurrence, high metastatic rate and higher mortality [4].

We present a case report of solid ACC of parotid salivary gland in a 42 year old female with intracranial extension. Despite good initial response to radiotherapy, patient developed recurrence in the eyelid, orbit, maxilla of the same side and pons. The patient expired within a year of diagnosis.

Case Report

A 42 year old female was referred to our centre as a case of carcinoma of left parotid with intracranial extension. The patient came with complaints of pain and swelling on left side of face since one year. The swelling gradually increased in size. Patient had forgetfulness, one episode of convulsion and inability to close left eye since one month. On clinical examination patient was conscious and oriented. Motor and sensory systems were normal. However personal history suggested that symptoms of forgetfulness were observed earlier as well. Left facial nerve palsy of lower motor neuron type (LMN), left lateral rectus palsy and left eye conjunctival congestion were present. Vision was normal in both eyes. A swelling of 6 x 7 cm was present in left parotid region. It was hard, fixed and non-tender. A healthy scar mark of biopsy was present over the swelling. The routine blood counts, biochemical tests and radiograph of the chest were within normal limits. Ultrasonography of abdomen and pelvis was

within normal limits. Computed tomography (CT) scan of parotid revealed enlarged parotid (6.6 x 4.1 cm) with intense enhancement without areas of necrosis or bone destruction (Fig. 1). CT scan of the brain revealed left temporo-parietal intensely enhancing lesion extending from base of skull, adjacent to dorsum sellae, with involvement of cavernous sinus and the left cerebello pontine angle (CP angle) with bone destruction. Histopathology of left parotid swelling revealed adenoid cystic carcinoma of solid variant. The patient was planned for external radiotherapy covering parotid swelling as well as intra-cranial lesion by Telecobalt Unit to a total dose of 6600cGy in 33 fractions (field reduction was done after 25 fractions). The patient completed radiation treatment and was on regular follow up. The response with the radiation therapy was encouraging. However, two months after radiation, residual swelling (1.5 x 2 cm) was seen in the left parotid region. CT scan of brain revealed no residual lesion but radiation induced gliosis in left temporal region. Five months after completion of radiation treatment, the patient

Fig. 1: CT scan at parotid level shows enlarged left parotid gland

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