Sebaceous carcinoma of parotid with cervical lymph node metastasis: Case report and review of literature

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Abstract

We report the case of a 72-year-old woman who was presented to us with a right pre- and infra-auricular and neck swelling. On evaluation, she was diagnosed to have parotid malignancy with cervical lymph node metastasis. The mass was surgically excised, and a histopathological report of sebaceous carcinoma was obtained. She had a past history of right eye malignancy. A review of literature on sebaceous carcinoma was carried out. This article is about a rare tumour at an atypical site.

Key words: Carcinoma, Parotid, Sebaceous

Introduction

Sebaceous Carcinoma (SC), is a potentially aggressive tumour. It usually arises within the meibomian glands of the eyelid, which are specialized sebaceous glands within the tarsal plate or within the glands of Zeis, sebaceous glands are associated with eye lid margin hair follicles\(^1\). Its reported incidence is variable. According to a study, there are around 400 cases of SC reported in literature,\(^2\) whereas according to another article, there have been isolated reports of less than 200 patients.\(^3\) Extraorbital SC is rare, with around 150 cases having been reported in English literature till date.\(^4\) We report one such case of parotid SC with cervical lymph node metastasis due to the rarity of its location and the peculiarity of its clinical presentation.

Case history

A 72-year-old woman came to the outpatient department of a tertiary care hospital with history of swelling around the right ear and adjacent lower jaw for four years. When first noticed, the swelling was the size of a peanut and was gradually progressing in size, until six months after which it rapidly increased in size. The patient had a history of loss of appetite and weight for a duration of six months, though she was not able to quantify it. There were no other complaints regarding her other ear, nose or throat. The patient had no other comorbidities.

Past history: The patient had undergone a surgical procedure for removal of a right eye swelling four years back at another hospital. Following this, she was told that she had cancer, and underwent radiation treatment. The details relating to the diagnosis were not available with the patient. She had good vision and was asymptomatic for a few days after the treatment, when she was diagnosed with right eye glaucoma, and within the next few days there was complete right sided visual loss. After a couple of months, she noticed the swellings in relation to the right ear and jaw, for which she came to us.
Examination findings: There was a 6x6 cm swelling in the right infra auricular region which had pushed the ear lobule upwards (Figure 1). The overlying and surrounding skin was erythematous and non-pinch-able. The swelling was mixed in consistency, having solid and cystic areas. It had restricted mobility. There were two more swellings, one in the pre-auricular region and another below the first mentioned swelling of size 3x3 cm and 2x2 cm. The three swellings had similar features on palpation. Examination of the right eye showed lateral tarsorrhaphy, loss of eye lashes, keratinization of cornea and conjunctiva. There was no perception of light. ENT and left eye examination was essentially normal. At this stage, we came to a provisional diagnosis of malignancy of the right parotid gland with cervical lymph node metastasis.

Management: Routine blood investigations including liver function tests, were normal. Chest x-ray were normal. A Contrast Enhanced Computed Tomography (CECT) scan of the neck was done. It showed a heterogeneously enhancing exophytic mass lesion measuring 7.8x6.7x6.5 cm in the right parotid space, involving predominantly the superficial lobe with an extension into the deep lobe of the parotid gland (Figure 2). Craniocaudally, the lesion was extending from the floor of the ear canal to the hyoid bone. The lesion was abutting the masseter muscle anteriorly and sternocleidomastoid muscle posteriorly. There was a loss of fat planes between the lesion and these muscles. Few enlarged necrotic right submandibular lymph nodes were seen, largest measuring 2.7x1.8 cm. An ultrasound scan of the abdomen was done to rule out intra-abdominal metastasis, and the same was reported to be normal. A Fine Needle Aspiration Cytology (FNAC) done from the lesion, showed features of mucoepidermoid carcinoma versus metastatic squamous cell carcinoma.

The patient underwent right superficial conservative parotidectomy along with right-sided type-II modified radical neck dissection (Figure 3). Intraoperatively, the tumour was found infiltrating the sternocleidomastoid muscle, but there was no involvement of the deep lobe of parotid. The skin overlying the tumour was excised, and a primary closure was done.

Post operatively, there was no cranial nerve deficit. On histopathological examination, the features were consistent with a sebaceous carcinoma, basaloid
type (Figure 4). The patient was sent for adjuvant radiotherapy. She was on regular follow up and there was no evidence of recurrence until two years, after which she was lost for follow up.

Figure 4: Tumour composed of basaloid cells with microvacuolation and hyperchromatic nuclei H&E x 10

Discussion

SC is a rare, slow growing tumour that is locally aggressive and capable of regional and distant metastases. Rulon and Helwig, systematically classified sebaceous tumours into three categories: (1) Sebaceous adenoma, (2) Basal cell carcinoma with sebaceous differentiation, and (3) True sebaceous carcinoma. The histopathologic criteria for SC are high mitotic activity, nuclear pleomorphism, lobular architecture and foamy vacuolization in the cytoplasm. A positive lipid stain demonstrating intracellular lipids, such as oil red O or Sudan IV, is also helpful for establishing the diagnosis.

These tumours occur most frequently in the sixth and seventh decades of life. The tumour is common in the ocular adnexa, and its occurrence at extraocular sites is rare. The most common extra-orbital site is the skin of face and neck, where sebaceous glands are mostly populated. Other reported sites are parotid and submandibular salivary glands, buccal mucosa, laryngeal and pharyngeal cavities, trunk and upper extremity, sole and dorsum of great toe, and the penis. The reason for the genesis of SC in salivary glands could be because of the internal displacement of the ectodermal material during embryogenesis, or because of the pluripotent duct cells that harbor a latent ability to differentiate into a variety of cell types, including sebaceous, squamous, oncocytic and mucous cells.

The common consensus for the treatment of this tumour is wide surgical excision under frozen section monitoring along with the removal of involved lymph nodes. Histopathological examination gives the definite diagnosis. Radiation therapy is an effective treatment modality for early sebaceous carcinoma involving the ocular adnexa, as an adjuvant treatment in patients with lymph node metastasis, or for palliation. Relapse after excision may occur, and therefore regular follow up with screening for local recurrence and for distant metastasis should be scheduled.

References