Salivary Duct Carcinoma in the Neck

Dear Editor,

Salivary duct carcinomas (SDC) are primarily high-grade, aggressive malignancies that affect men in the fifth and sixth decades of life. These tumours are primarily found in the major salivary glands, especially parotid and are rarely from minor salivary glands. If it involves the minor salivary gland, the most common reported sites include the paranasal sinuses and intraoral cavity. We describe a case of salivary gland duct carcinoma which presented as an occult primary in the neck.

Case Report

A 62-year-old female presented with painless right neck swelling of one year duration. It was progressively increasing in size. There was no history of fever or other constitutional symptoms. Physical examination revealed right neck mass located at the level III. It measured about 8 x 7 x 7 cm. There was an ipsilateral 2 x 2 cm swelling at the level IV.

The patient was worked up for the search of the primary lesion. Nasoendoscopy showed a normal nasopharynx. Panendoscopy which included direct laryngoscopy, bronchoscopy and esophagoscopy were normal.

Fine needle aspiration cytology of right level III swelling showed many malignant cells with mitotic figures. Many apoptotic bodies were also present. CT scan of neck showed large multilobulated heteregenously solid mass with multiple hypodensities in right posterior triangle. There were multiple lymph nodes along carotid sheath as well as submandibular and submental nodes. Chest was clear and ultrasound abdomen was normal.

Right radical neck dissection was performed. Intraoperatively, there was presence of multiple lymph nodes at level II, III and IV on the right side of the neck. The largest was at the level III which infiltrated the overlying skin and the sternocleidomastoid. There was no plane of demarcation of the mass with the tail of parotid. Frozen section of right level III lymph node showed malignant cells suggestive of the salivary gland. The right parotid and submandibular and sublingual gland were removed.

Postoperative period was uneventful. Histopathological examination of the right level III node showed salivary gland duct carcinoma. Other specimens including all the salivary glands were negative for malignancy. The surgical margin was clear.

Discussion

Salivary duct carcinomas (SDC) are primarily high-grade, aggressive malignancies that affect men in the fifth and sixth decades of life. These tumours are usually found in the major salivary glands and rarely do they arise from the minor salivary glands.[1] Few cases reported had classified this



Fig. 1. Mass at the right side of the neck.

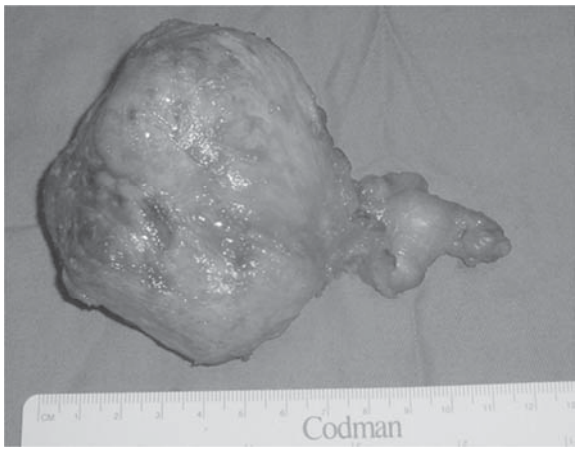


Fig. 2. Mass removed with the adjacent lymph node.

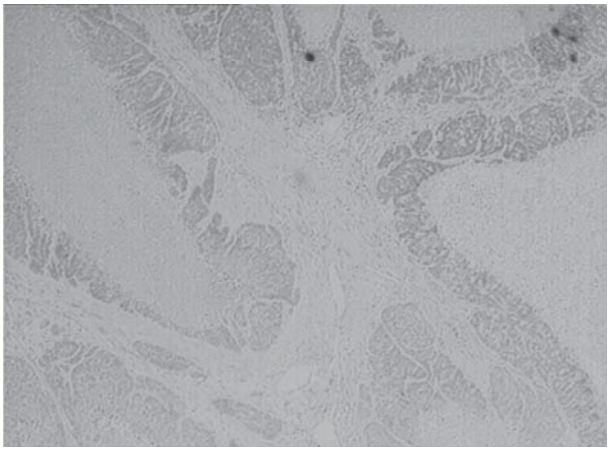


Fig. 3. Tumour arranged in a glandular pattern with extensive areas of necrosis. The surrounding stroma contains scattered chronic inflammatory cell infiltrate. H & E x25

type of minor salivary gland carcinoma as separate entity.

The most common site of minor salivary gland carcinoma is intraoral (70%) followed by paranasal sinuses (28%), and nasopharynx and larynx (1% respectively).[2] The tumour usually remains asymptomatic until they produce mass effect or neural invasion.[3] In this case, the primary site of tumour is in the neck. Normal findings on clinical, panendoscopy examinations and radiological imaging excluded the other primary of head and neck region.

Surgery is the accepted primary modality of the treatment for most of the minor salivary gland malignancies. Right radical neck dissection and functional total parotidectomy was performed. Intraoperatively, the mass located at the level III was in continuity with the tail of parotid. However, the histopathological examination of major salivary gland removed, which included parotid, submandibular and sublingual, excluded these glands as the primary. A set of immunohostochemistry tests were performed in this case, which included EMA, CK 19, CKA E1 and AE3, CK 7, mucicarmine, thyroglobulin, AFP and CK 20, to help us to establish the diagnosis of SDC.

The patient underwent postoperative radiotherapy. In a study by Garden et al, 160 patients with minor salivary gland carcinoma received postoperative radiotherapy recommended dose of 60 Gy in 30 fractions to the operative bed and had showed actual survival rates at 5,10 and 15 years were 81%, 65% and 43%, respectively.[2] The subsequent follow-up showed no evidence of recurrence of tumour at primary site or distant metastasis. The other possibility or the more likely clinical scenario is that they clinically missed a very small primary being treated adequately by radiation therapy.

In conclusion, SDC is a very rare but aggressive disease. Surgical excision followed by radiation therapy is an effective treatment for likely residual microscopic disease.

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