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Basal Cell Adenocarcinoma of Parotid Gland: A Rare Tumor Entity

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***Abstract*: *Introduction:* Basal cell adenocarcinoma of parotid gland is a rare malignancy accounting for 1-2% of salivary gland carcinomas. It is low grade malignant counterpart of basal cell adenoma; infiltrative with perineurial invasion and vascular invasion. It is also called basaloid carcinoma. It is associated with dermal cylindromas. It is slow growing and locally destructive.**

***Case presentation:* A 45-year old male patient presented with a 2-year history of swelling on right side of neck. MRI neck revealed a lesion predominantly occupying the superficial part of right parotid gland with mild focal bulge into the deep part. Rim of normal parotid parenchyma surrounding the lesion except laterally and postern-superiorly. The lesion was in close relation with antero-inferior aspect of external auditory canal. The patient underwent right total conservative parotidectomy. Histopathology report showed basal cell adenocarcinoma. Thereafter the patient received radical post-operative external beam radiation therapy 60 Gy/30 fractions/6 weeks. The patient is presently disease free after 2 years of regular follow up.**

***Conclusion:* Parotidectomy is the standard of care for basal cell adenocarcinoma. Radiation is advisable in patients with recurrent disease. Since there is a nearly 37% local recurrence rate, intensive follow-up is necessary.**

***Keywords*: Rare tumor entity, Basal cell adenocarcinoma, Parotid gland.**

1. Introduction

Basal cell adenocarcinoma of parotid gland is a rare malignancy accounting for 1-2% of salivary gland carcinomas.1 Basal cell adenocarcinoma (BCAC) of salivary gland was included in World Health Organization (WHO) classification for salivary gland in 1991. It is low grade malignant counterpart of basal cell adenoma. It is an infiltrative disease with perineurial invasion and vascular invasion. It is also called basaloid carcinoma. It is associated with dermal cylindromas. It is slow growing and locally destructive. 37% of these cancers recur locally, 8% metastasize to lymph nodes and 4% to lungs, but death from disease is unusual. [2]-[4]

Basal cell adenocarcinoma can be distinguished from basal cell adenoma on the basis of the infiltration of disease into parotid parenchyma, dermis, muscle, or surrounding fat.5 But because of basal cell adenocarcinoma being a low grade malignancy, it can be difficult to distinguish early stage basal cell adenocarcinomas from basal cell adenomas [5].

2. Case Presentation

A 45-year old male patient presented with a 2-year history of swelling on right side of neck which was insidious in onset, gradually progressive and not associated with pain. The patient did not have a history of any chronic illness or history of cancer in the family and was not receiving any medication.

General physical examination and systemic examination were normal. Local examination revealed a 3 × 3 cm swelling over the right parotid gland. MRI neck revealed a lesion predominantly occupying the superficial part of right parotid gland with mild focal bulge into the deep part. Rim of normal parotid parenchyma surrounding the lesion except laterally and postern-superiorly. The lesion was in close relation with antero-inferior aspect of external auditory canal.

The patient underwent right total conservative parotidectomy. Histopathology report showed basal cell adenocarcinoma. Thereafter the patient received radical post-operative external beam radiation therapy 60 Gy/30 fractions/6 weeks. The patient was given 40 Gy/20 fractions by direct anterior field to right face and neck with face turned to left side in supine position with wet cotton bolus in situ. Then the patient was re-planned for 20 Gy/10 fractions by right anterior oblique and right posterior oblique field to right face and neck in supine position with face turned to left side by using bilateral 30 degree wedges at a depth of 1 cm.

The patient is presently disease free after 2 years of regular follow up with clinical examination and imaging.

3. Discussion and Conclusion

The treatment of choice for basal cell adenocarcinoma of parotid gland is superficial parotidectomy with preservation of the facial nerve. Neck dissection has to be added in cases with cervical metastases. Radiation is advisable in patients with

recurrent disease. Since there is a nearly 37% local recurrence rate, intensive follow-up is necessary.

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