

Case Report

Squamous Cell Carcinoma of the External Auditory Canal in Previously Treated Case of Adenoid Cystic Carcinoma of Parotid Gland

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Introduction

Malignant neoplasms of the external auditory canal, middle and inner ear are rare. This anatomically complex region generates complicated three-dimensional specimens that can be a challenge for macroscopic and microscopic assessment [1]. The most common cause of malignancy involving the EAC and temporal bone is extension of cutaneous malignancy of pinna. Rare occurrences have been described in association with CSOM and sporadic cases arising in previously irradiated fields for the treatment of other head and neck cancers. The tissue diagnosis is relatively straightforward; however staging is a complex task that is best approached with consideration of clinical, radiological, and pathological findings [2].

Case report

We report a case of 68 years old female with a past history of adenoid cystic carcinoma of right parotid gland post superficial parotidectomy and adjuvant radiotherapy in 2004. Now with complaints of right ear discharge and ear ache since 6 months, on further detailed and systematic evaluation, revealed a mass lesion in the EAC with extension into the infratemporal fossa (Figure 1) which was confirmed to be a well-differentiated Squamous Cell Carcinoma (SCC) on biopsy. After obtaining proper consent and ethical clearance, the patient underwent surgical de-bulking followed by adjuvant EBRT to post-operative residual disease and elective irradiation of ipsilateral nodal levels II and III using the VMAT

More Information

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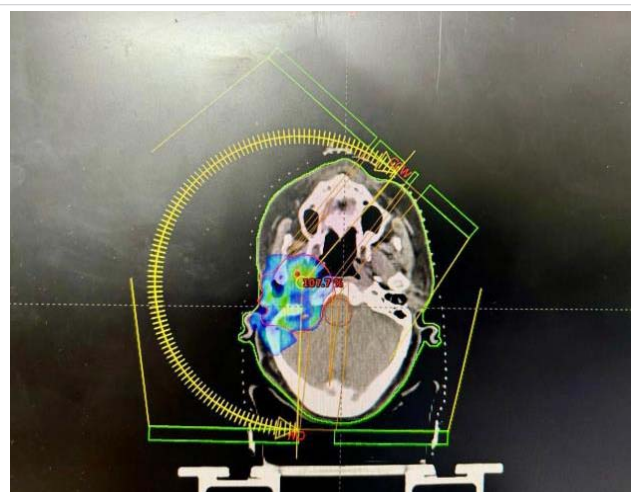


Figure 1: Pre EBRT PET CT Scan findings revealing 2.1x1.4x3.2 cm lesion in the right EAC extending to the Infratemporal Fossa (ITF).

technique (Figure 2) to a total dose of 66 Gy delivered in 33 fractions, 2 Gy per fraction. The patient tolerated radiotherapy well and was placed under regular follow-up. 12 weeks post EBRT patient was assessed clinically and radiologically with ¹⁸F-FDG whole-body PET-CT scan which showed complete morphological and metabolic response (Figure 3). The patient is under surveillance and is doing well.

Discussion

Squamous Cell Carcinoma (SCC) of the External Auditory

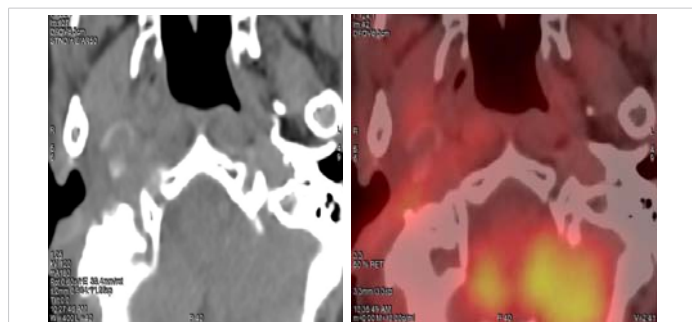


Figure 2: EBRT treatment plan using VMAT technique.

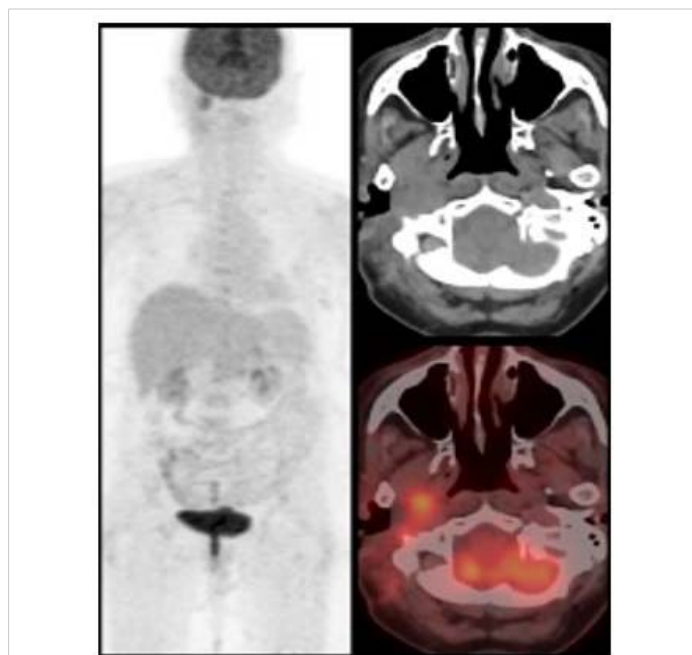


Figure 3: Post-EBRT evaluation scan (12 weeks) showing complete morphological and metabolic response.

Canal (EAC) is rare. These tumors are often misdiagnosed in the early stages as benign conditions owing to the similarity of symptoms and due to the complex anatomical location and their invasive nature, advanced disease typically carries a poor prognosis [3]. Current treatment guidelines are largely based on limited literature; thus, the level of evidence is weak [4]. Similar observations were reported by Sarbani Ghosh Laskar, et al. [5], who concluded that Surgery followed by adjuvant therapy should remain the mainstay of treatment for EAC and TB SCC. IMRT should be the preferred modality for RT due to lower late morbidity. Routine elective nodal irradiation is not generally recommended. The chance of developing

Squamous Cell Carcinoma (SCC) in the same region can be increased by prior radiation therapy to the head and neck, especially if the treatment was delayed for several years. It is a known consequence, particularly with greater radiation doses, although the overall risk remains relatively low [6].

Conclusion

This case report emphasizes the importance of maintaining a high index of suspicion and adopting a multidisciplinary approach which can lead to early diagnosis and potentially improve patient outcomes.

Ethical considerations

Informed consent was obtained from the patient for all diagnostic, therapeutic, and follow-up procedures, as well as for the publication of this case report and associated images. Ethical clearance for reporting this case was approved by the institutional ethics committee of MNJ Institute of Oncology & Regional Cancer Centre, Hyderabad, and Telangana. The patient's identity has been anonymized in accordance with international ethical guidelines and the Declaration of Helsinki.

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