RARE CASE OF SQUAMOUS CELL CARCINOMA OF TEMPORAL BONE

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INTRODUCTION
It is rare to get squamous cell carcinoma in the ear. Squamous cell carcinomas in temporal bones are usually migrated or spread from the external canal. It is rare to find squamous cell carcinomas in the temporal bone without involvement of the external canal. In such a situation, the possibility of squamous cell metaplasia in the middle ear and mastoid due to prolonged irritation from inflammation for many years may be the cause of the carcinoma.

CASE HISTORY
A 65 years old Hindu Manipuri male came with complaints of severe earache and headache on left side for last one month with no relief from analgesic and antibiotic therapy. He had history of recurrent purulent ear discharge since his early teens. He was diagnosed with cholesteatoma in the attic and postero-superior part of middle ear for more than 40 years and he had been refusing surgery for the last so many years.

He had been treated intermittently with antibiotics and getting relief from ear discharge for many days in between. He has hearing loss of severe degree in the diseased ear for more than last forty years.

EXAMINATION
The posterior and superior bony ear canal was swollen and smooth with no ulceration and the medial third of the external canal was obliterated. There was very little purulent ear discharge with foul smell. Endoscopy of external canal gave little information except the swelling in the postero-superior part of canal wall, partly occluding the ear canal in medial third.

INVESTIGATIONS
All findings of complete haemogram, bleeding and clotting time, urine examination, ECG, Xray chest Postero-anterior view, kidney and liver function tests, blood sugar test, serological tests for HIV, Hepatitis B and C antibodies were all normal. HRCT scan and MRI of temporal bones showed features of bony erosion suggestive of Cholesteatoma in the mastoid, attic and aditus ad antrum. There was heterogeneous signal in MRI from the bone eroding lesion spreading to the middle cranial fossa and sigmoid sinus on left side. The radiologists diagnosed the lesion as cholesteatoma with bone erosion and spreading to middle fossa dura and sigmoid sinus.

MANAGEMENT
The patient was operated under local anaesthesia, by post-aural approach under endoscopy. Before entering the mastoid antrum, the colour of the bone was

ABSTRACT
Squamous cell carcinoma occurring in the ear is rare. Squamous cell carcinoma occurring in temporal bone with no connection to the external canal and pinna is very rare. The following case is presented to suspect the possibility of carcinoma, in clinically and radiologically diagnosed cases of cholesteatoma, in long standing cases, occurring in elderly individuals. Severe earache and ear discharge can be symptoms of carcinoma of temporal bone. A possibility of change to carcinoma from long standing cholesteatoma is to be ruled out by proper study.

Keywords: Carcinoma, Endoscopy, Squamous cell, Temporal bone,
Rare case of squamous cell carcinoma

suddenly changed to pink on drilling. There was not much bleeding but the mastoid antrum was entered abruptly and a deep red to maroon colored velvety membrane was seen to line the enlarged bony cavity eroded by the disease. The tegmen anterii was eroded in one part and the middle fossa dura was exposed and invaded by the lesion. The sigmoid sinus was exposed when the red membrane was removed. The look of the disease was not at all of Cholesteatoma and squamous cell carcinoma was suspected. A biopsy was taken and bulk of the tumour was reduced by removing the velvety membrane and drilling the surrounding reddish bone with diamond burr until hard bone was exposed. The sigmoid sinus and middle fossa dura were exposed. The facial ridge was lowered and a canal down procedure with wide meatoplasty was done. The bony defect was packed with antibiotic impregnated absorbable gelatin gel and post aural wound was closed in two layers. Histopathological diagnosis was squamous cell carcinoma. The patient is undergoing a full radiotherapy and adjuvant chemotherapy course.

DISCUSSION

Head and neck cancer is the most common type of malignancy in Indian male population. Ear cancer accounts for 0.4% of all head and neck cancers\(^3\). Pinna cancer is the most common of ear cancer. Squamous cell carcinoma involving the temporal bone are usually spread from the external canal skin.\(^2\) Ear discharge, hearing loss, earache, mass in the external canal and vertigo are the presenting complaints in such cases.\(^5\) But in our case the long standing history of ear discharge and earlier long standing diagnosis of Cholesteatoma, the absence of ulcer and mass in the external canal; and absence of any secondary neck nodes and radiological findings had suggested the preoperative diagnosis as cholesteatoma with intracranial spread. But postoperative finding of squamous cell carcinoma inside the temporal bone with not much involvement of external canal skin and pinna has led us to suspect malignant change inside the temporal bone in the cholesteatoma sac. Squamous cell carcinoma inside the temporal bone is rare. The case has been presented to always suspect a possibility of occurrence of carcinoma in the temporal bone, in spite of radiological and clinical diagnosis of cholesteatoma in elderly patients, and to discuss possibility of carcinomatous change from long standing cholesteatomatous disease.\(^4\)

FIGURES & LEGENDS

Figure 1: Histopathological findings of squamous cell carcinoma of temporal bone.

Figure 2: MRI of temporal bone showing bony erosion and heterogeneous enhancement of space occupying lesion. Small arrow: enhancement of the medial margins. Large arrow: Less enhanced centre and lateral part.

REFERENCE


