

# CASE REPORT

## SQUAMOUS CELL CARCINOMA OF EXTERNAL AUDITORY CANAL: A CASE REPORT

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**ABSTRACT:** Temporal bone malignancy is a rare entity accounting for 1-6 per 1,000,000. Vast majority of these (20-60%) arise from auricle, more than 25% arise from external auditory canal. Squamous cell carcinoma accounts for 69.2% of malignancies of temporal bone.<sup>1-3</sup> A 67 year old lady presented in our OPD with a mass completely occluding the right EAC. She underwent sleeve resection of EAC and histopathological examination revealed well differentiated squamous cell carcinoma.

**KEYWORDS:** Tinnitus, Reddish Friable, Pittsburg staging.

**CASE REPORT:** A 67 year old female presented with blocked sensation of right ear associated with hearing loss and tinnitus of 4 months duration. On examination there was a reddish friable mass completely occluding right external auditory canal. HRCT temporal bone revealed mass in external auditory canal with no bony erosion or extension abutting the tympanic membrane.

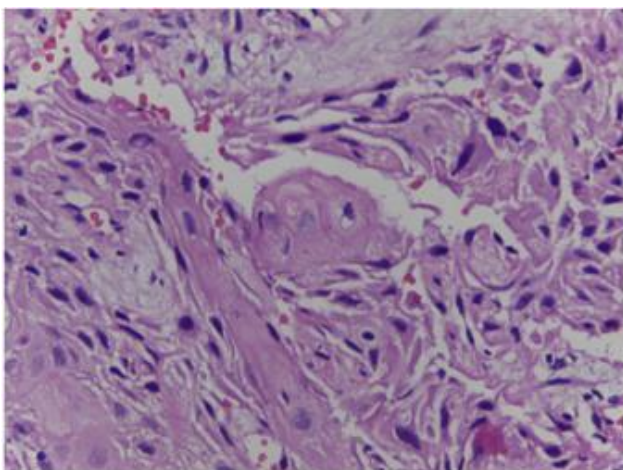


HRCT temporal bone showing soft tissue density in the right external auditory canal abutting the tympanic membrane without any middle ear involvement

An exophytic mass within EAC should be considered malignant. (SCOTT 4089) and is a strong indication for urgent biopsy. Hence according to Pittsburg staging system this lesion was staged as Stage I temporal bone malignancy. The patient underwent sleeve resection of EAC.

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Histopathological examination of the specimen revealed well differentiated squamous cell carcinoma (? Adequate margins)



Histopathological study revealed sheets of polygonal cells with keratin pearl formations suggestive of well differentiated squamous cell carcinoma

Post op CT/Pic

**DISCUSSION:** Squamous cell carcinoma is the most common histopathological subtype of temporal bone malignancy.<sup>4</sup> Even though several staging systems are present for temporal bone malignancy, the Pittsburgh staging system is followed worldwide as it is based on radiographic findings and has been correlated with both histopathological examination of the involved temporal bones and clinical outcomes<sup>5</sup>. The Pittsburgh staging is

T1: Tumor limited to the external auditory canal without bony erosion or evidence of soft tissue extension.

T2: Tumor with limited external auditory canal bony erosion (not full thickness) or radiographic finding consistent with limited (< 0.5 cm) soft tissue involvement.

T3: Tumor eroding the osseous external auditory canal (full thickness) with limited (< 0.5 cm) soft tissue involvement, or tumor involving middle ear and/or mastoid.

T4: Tumor eroding the cochlea, petrous apex, medical wall of the middle ear, carotid canal, jugular foramen or dura, or with extensive (>0.5 cm) soft tissue involvement; patients presenting with facial paralysis.

- T4a: extracranial extension (> 0.5 cm) in soft tissue or skin.

- T4b: Tumor eroding the cochlea, petrous apex, medical wall of the middle ear, carotid canal or jugular foramen.

- T4c: extension to the dura EAC12.

N status: - N0: no regional lymph node metastasis.

- N1: metastasis in regional lymph node(s).

- Nx: regional lymph nodes cannot be assessed.

• M status: - M0: no distant metastasis.

- M1: distant metastasis.

- Mx: distant metastasis cannot be assessed.

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Accordingly our case belongs to Stage I temporal bone malignancy and we did a sleeve resection since it is indicated in cases where tumour is confined to skin and soft tissue of cartilaginous portion of EAC. Radiation therapy has limited success rate in temporal bone malignancy.<sup>6</sup>

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