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Sleeve resection – carcinoma external auditory canal

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Case report

Sleeve resection – carcinoma external auditory canal

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Abstract

Malignancies of external auditory canal (EAC) are uncommon. One per million is the annual incidence. Most common is squamous cell carcinoma, followed by adenoid cystic, basal cell carcinoma and melanoma. Consensus on treatment modality may vary due to the rarity of the tumour. We present a case of squamous cell carcinoma of EAC limited to the cartilaginous part l, presenting with intermittent ear discharge for many months. A sleeve resection with safety margin was done and a split-thickness skin grafting was done for reconstruction. There was no immediate complication and no evidence of any recurrence even after one and a half year of follow up.

Keywords: External auditory canal, squamous cell carcinoma, sleeve resection, split-thickness skin graft

Introduction

Due to the rarity of the tumours of EAC, the consensus regarding the treatment protocols is inadequate. Even the large centres see few cases annually. The annual incidence is one per million.[1] The most common variety histopathologically is squamous cell carcinoma.

Case report

A 65 year old female patient with no other comorbidities presented to outpatient department with intermittent otorrhoea in the left ear for six months.

Otoscopy revealed a proliferative mass filling the entire left EAC. Examination under microscope (EUM) showed it to be arising from the posterior wall of the EAC (Figure 1). The mass obscured the tympanic membrane view. The mass was fragile and bled on touch. Head and neck examination was within normal limits. Keeping in mind the above findings and age of the patient, a High resolution Computer tomography (HRCT) scan of the temporal bone of the patient was done. It revealed a mass arising from the posterior wall of the left EAC, not invading the bone or the tympanic membrane. No nodes were found (Figure 2).

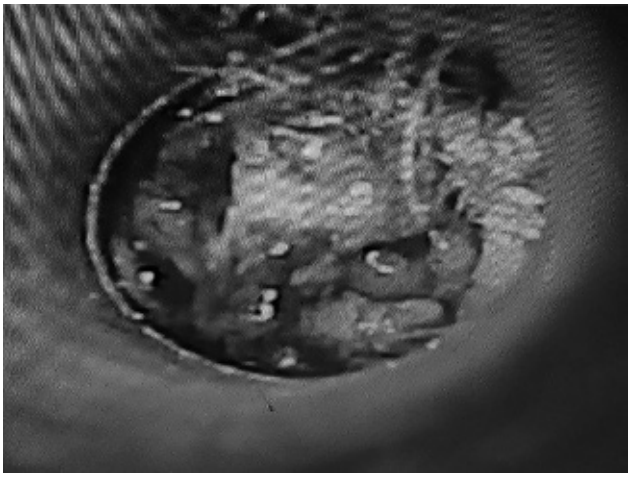

Figure 1: EUM image of the growth filling the EAC

Biopsy of the mass was done under local anaesthesia. The histopathology report came as squamous cell carcinoma (Figure 3).

Pittsburgh staging system[2] was used for staging the cancer. The patient's tumour was confined to the

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Figure 2: Axial CT image of the growth showing growth limited to EAC.

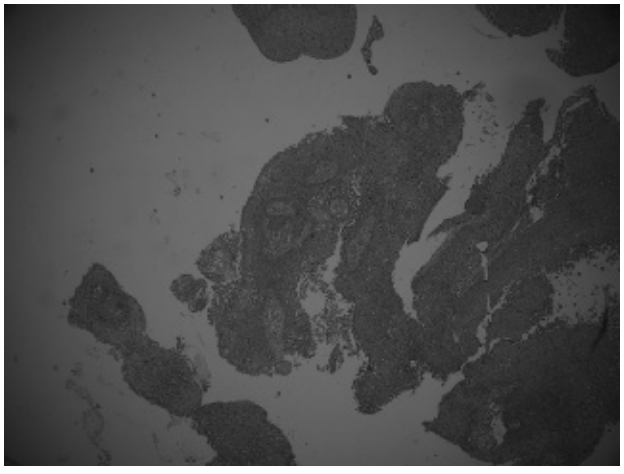

Figure 3: H & E stain, 10X of the growth

EAC. There was no bony erosion or evidence of soft tissue involvement (T1), no lymph node metastases (N0), and no distant metastases (M0).

The patient was subjected to sleeve resection of the right EAC via transcanal and post-auricular approach. Frozen section was done intraoperative to be sure about the adequacy of the surgical resection margins. Split-thickness skin graft taken from left thigh was used for reconstruction of the defect (Fig 4). EAC was packed with gel foam soaked in antibiotic ointment. Histopathology report confirmed squamous cell type of carcinoma not invading the cartilage. Resected surgical margins were free of tumour invasion. No adjuvant chemotherapy or radiotherapy was given.

Figure 4: Split thickness skin graft in place after sleeve resection

At one and a half year of regular follow up after the surgery, there is no sign of local recurrence (Figure 5).

Figure 5: Follow up picture after 2 months

Discussion

Squamous cell carcinoma (SCC) is amongst the most common tumours in the temporal bone (80%). Basal cell carcinoma, adenoid cystic carcinoma, adenocarcinoma and melanoma are some other histological diagnoses. Pittsburgh group in 1990 gave a staging system for SCC of the EAC. Tumor Node Metastasis (TNM) staging was proposed by

Arriage et al. based on clinical examination and pre-operative CT scan findings.[2]

Due to the rarity of the tumour, randomized trials to ascertain the line of treatment is not possible. There is disagreement about the surgical extent of dissection and role of chemo and radiotherapy. Gidley[3] has described management strategies for the EAC carcinoma. Tumours at an early stage can be managed with surgery. T1 tumours limited to soft tissue or cartilaginous canal can be treated with wide excision of the skin and cartilage. Frozen section should be done for margins. Tumours invading bony ear canal should undergo lateral temporal bone resection. Nyrop and Grontved[4] after evaluating surgically treated EAC cancers reached a conclusion that outcome depend on the stage of the disease.

Patients presenting in early stages may be managed successfully with a less aggressive approach.[5, 6] Our patient had limited tumour with no lymph node or distant metastasis.

We conclude that conservative approach such as sleeve resection can benefit in the early stages of EAC carcinoma.

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