SQUAMOUS CELL CARCINOMA OF THE MIDDLE EAR: CASE REPORT AND LITERATURE REVIEW

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Abstract
A 50 year-old man with squamous cell carcinoma of the right middle ear is presented. Treatment was by surgery and radiotherapy. The literature is reviewed.

Key words: Middle ear, carcinoma, squamous cell

Introduction
Middle ear squamous cell carcinoma is a rare tumour, that has continued to have a dismal outcome despite increase in technology. Early diagnosis is rare and it is commonly associated with chronic otitis media in several reports.

Case report
A 57-year-old man presented with a recent history of exacerbated discharge from the right ear. He had a history of intermittent recurrent right ear discharge for over 20 years. There has been associated difficulty in hearing but no vertigo or any neurological symptoms.

Examination showed a polypoidal granular mass filling the right external auditory canal arising from the middle ear. No tympanic membrane seen. Initial histology indicated a high-grade dysplasia, suspicious of invasive malignancy. Computer tomography (CT) revealed a soft tissue mass filling the right external auditory canal, most of the right middle ear cavity, and surrounding the ossicles in the attic, which appeared intact. There was significant bony erosion adjacent to the soft tissue mass in the middle ear (Figure 1).

He had exploration of the right ear, and at surgery tumour was found to extend from the external auditory canal and involving the upper mesotympanium and attic. The facial nerve was exposed in its horizontal position 5mm. The dura was exposed and there was dehiscence of the anterior canal wall exposing the temporo -mandibular joint capsule. The stapes supra structure was not seen, however the malleus head was and embedded within the tumour. Residual tumour was left in the anterior attic over the oval window area and towards the Eustachian tube. Radical mastoidectomy and wide meatoplasty was done. Histology confirmed squamous cell carcinoma. A 6-week course of radical radiotherapy was given to the right ear. He is been followed up at the multidisciplinary joint oncology clinic.

Figure 1: Soft tissue mass extending from the middle ear cleft to external auditory canal

Figure 2: Soft tissue mass in the right middle ear cavity
Discussion

Carcinomas of the middle ear are rare tumours, it represents 5-10% of all ear neoplasm and the vast majority are squamous cell carcinoma. The median age for these cancers is 55 years, however cases have been reported in children as young as 8 years. It is usually a unilateral disease however bilateral cases have been reported. Chronic otitis media has been implicated as the main aetiological factor in this tumour. Hence the need for a detailed regular insight into the role of chronic inflammation.

Middle ear squamous cell carcinoma should be considered when refractory granulation, long-standing otorrhoea, otalgia, and facial nerve palsy are considered when refractory granulation, long-standing insidious disease, a lateral or sub-total temporal resection may be considered. The procedures are not always curative, but may provide relief of the severe pain, which is so often, the most distressing aspect of the problem. Sole radiotherapy is mainly used for palliation were surgery is made impossible because of the poor general condition or in very tiny tumours. Our patient however had radical mastoidectomy, which was followed up by post operative radiotherapy. This is a traditional approach.

Five-year survival is about 25%-50% in patients who undergo surgery and radiotherapy. Patients with petrous bone invasion, dura invasion and distant metastasis have a gloomier outcome. Advances in technology has not improved the outcome in terms of cure. However with radiotherapy techniques becoming better, are we moving towards a lesser aggressive surgery with a better quality of life?

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References

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