

# Bilateral Auricular Squamous Cell Carcinoma

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#### Bilateral aurikular skuamoz karsinom

70 yaşında erkek hastada 1 yıllık hikayesi olan sol kulağın heliksinde eritem ve ülserli, kabuklanmış lezyonu mevcuttu. Biyopsi sonucu skuamoz hücreli karsinom olarak geldi. Hastanın sağ kulağı 5 yıl önce aynı lezyon nedeniyle rezeke edilmişti. Bilgisayarlı tomografi sonucu kemik invazyonu olmadığını gösterdi. Cerrahi tedavi olarak subtotal aurikula rezeksiyonu, sol modifiye radikal boyun disseksiyonu tip III ve yüzeyel parotidektomi yapıldı. Bu konuyla ilgili literatür gözden geçirildi.

Anahtar Sözcükler: Aurikula, skuamoz hücreli karsinom.

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#### **Abstract**

A 70-year-old man had one-year history of an erythematous, ulcerated and crusted lesion on the helix of his left auricle. Biopsy showed carcinoma of squamous cell type. His right auricle had been totally resected 5 years ago because of a similar lesion. Computed tomography revealed no bone destruction on the left side. As surgical treatment we performed subtotal auricular resection, left modified radical neck dissection-type III and superficial parotidectomy. The literature on this subject is reviewed.

Key Words: Auricle, squamous cell carcinoma.

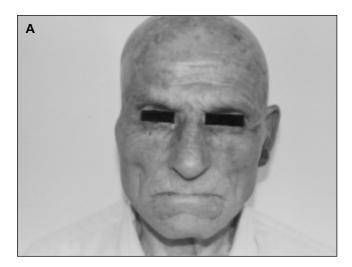
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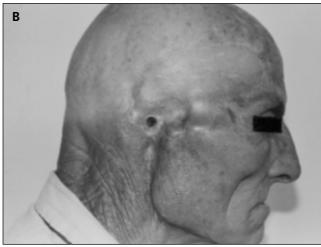
## Introduction

Skin cancer of the external ear constitutes 5-10% of new cases of malignant cutaneous neoplasms of head and neck region.¹ Squamous cell carcinoma (SCC) of skin is the second most common type after basal cell cancer, which is also true for auricle.² It is most commonly encountered in white men between 60-70 years of age and usually with a history of another primary.² Bilateral SCC of the auricle is a very rare entity.²-5 In this paper, we present a 70 year-old man with bilateral auricular SCC and review previously reported cases.

# **Case Report**

A 70-year old man applied to our clinic with the complaint of a skin lesion of his left auricle. The lesion





**Figure 1.** Anterior (**A**) and lateral view of the patient's previously operated (**B**) and diseased ear (**C**).



Incisional biopsy was reported as SCC on histopathological examination. The patient was managed by surgical resection which included subtotal auricular resection with left modified radical neck dissection-type III and superficial parotidectomy. Defective region was reconstructed by local flaps and the remnant of the auricle. Histopathological examination was reported as well-differentiated SCC with free surgical margins but cartilage invasion. No metastasis was detected in neck nodes and parotid. No adjuvant therapy was given and the patient was free of tumor in the 1-year follow-up.

had been present for 1 year and the patient denied any pain or bleeding. History revealed a similar lesion of the right auricle that had undergone total auricular resection without neck dissection or radiation 5 years ago, and the specimen was reported as SCC. On physical examination a 3x1.5 cm ulcerated lesion involving the lower half of the left auricle was found with no palpable neck mass. (Figure 1). Other physical findings were within normal limits as well including temporal CT findings (Figure 2), blood count/chemistry and chest radiogram. There was no evidence of locoregional recurrence on the right side and any second primary.



**Figure 2.** Axial temporal CT scans of the patient showing previously operated and diseased side.

## Discussion

During the past half-century the reports of multiple primary malignant neoplasms have steadily increased together with the frequency of occurrence of this phenomenon. This probably reflects the generally improved survival rates after treatment of cancer, in that the increased period of survival has permitted more patients to live long enough for a second primary lesion to develop. The ratio of multiple primaries is approximately 5%.6 As for the etiologic factors of multiple primary tumors almost all authors have agreed that multiple cancers occur more frequently than would be expected by chance alone. This implies a definite predisposition or susceptibility to cancer in certain persons or exposure to some influences that favors the development of cancer.<sup>3</sup>

Skin cancer arising in the head and neck region is common among people living in the Sun Belt, particularly white men who work predominantly outdoors.2,3,7 The skin of the pinna is especially vulnerable to actinic changes secondary to solar exposure. SCC has been well documented as the second most common type of skin cancer occurring on the auricle.<sup>4,5</sup> SCC of the external ear is not an uncommon diagnosis. These malignancies occur with the greatest frequency on the superior or posterior portions of the helical rim.<sup>2</sup> Several studies have demonstrated a higher recurrence rate as well as a poorer prognosis for SCC of the external ear compared to other cutaneous locations. The frequency of metastasis for these patients was approximately 9-12%, and the well-differentiated form is the most frequent histological variant.2,3,7-9

Bilateral cancer of the external ear is an unusual diagnosis.<sup>3,5,7</sup> Hakata et al referred in their article to Mandry's 1891 dated report of a single case of a 69-year-old man, who simultaneously developed cancer in both auricles and external auditory meatus.<sup>3</sup>

Hakata et al described the case of a 41 year-old man who was originally treated for carcinoma of the external auditory canal and subsequently developed a second carcinoma in the mastoidectomised middle ear cavity of the opposite ear.<sup>3</sup> Mann et al reported another case of bilateral basal cell carcinoma of ears.<sup>5</sup> Beaty et al. reported a case of bilateral auricular cancer with

perineural invasion.<sup>7</sup> In the last 2 cases there was an interval period between the 2 primary tumors similar to our case.

The various modalities of treatment have also been described. Radical surgical excision and the selected use of adjunctive postoperative irradiation appear justified in those patients with locally invasive tumors, multiple nodal metastases and extracapsular invasion.<sup>2</sup> Prophylactic lymph node dissection should be considered for tumors larger than 4 cm, with cartilage invasion, and for smaller tumors with maximum scores for depth of growth and node invasion.<sup>8,9</sup> Radiotherapy played very minor role in the definitive treatment for primary squamous cell carcinoma of the external ear. Based on the fact that the patients may continue to expose themselves to solar radiation and thus have a propensity for second primary cancers of the ear, surgery should be the treatment modality of choice.

As mentioned earlier, prophylactic lymph node dissection should be considered for tumors with cartilage invasion for which reason and also keeping in mind the high grade potential of squamous cell carcinomas, we performed modified neck dissection along with tumor resection because on preoperative gross examination cartilage invasion seemed to be a strong possibility. Since there is a higher recurrence rate as well as a poorer prognosis for SCC of the external ear compared to other cutaneous locations and since in our case the tumor was not close to the entrance of the external ear canal, we think that following a histopathological diagnosis consistent with a T2N0M0 tumor, saving adjuvant therapy for a recurrence in an elderly patient was a correct choice.

In the absence of both auricles, patients will face difficulty if they wore eye glasses. However, this problem can easily be overcome with the attachment of a rubber band. Surgical correction of diffraction abnormality of the eyes can be another solution in this case.

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