

## Preauricular Metastasis of Nasopharyngeal Carcinoma

Preaurikular Bölgeye Metastaz Yapan Nazofarenks Karsinomu  
Kulak, Burun, Boğaz Hastalıkları

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### Özet

Nazofarenks karsinomu, iyi diferansiye, kötü diferansiye ve indiferansiye olmak üzere üç histolojik tipte görülebilmektedir. Az diferansiye tip özellikle lenf nodu metastazı ve uzak metastaz yapmaya meyillidir. Sıklıkla Rozenmüller fossa kaynaklı olan nazofarenks karsinomu, lokal yayılımını en sık postero-lateral yönde yaparken uzak metastazlarını ise sıklık sırasına göre kemik, akciğer ve karaciğere yapmaktadır. Burada öykü ve klinik özellikleriyle 54 yaşında kadın hastada temporal bölge metastazı saptanan olgu sunuldu.

**Anahtar kelimeler:** Az diferansiye karsinom, nazofarenks, temporal bölge, kulak metastazı

### Abstract

Nasopharyngeal carcinoma can be seen in three histological types, good differentiated, poor differentiated and undifferentiated. The poor differentiated type is prone to lymph node metastasis and distant metastasis. Nasopharyngeal carcinoma, which frequently originates from Rosenmüller fossa, performs local spread most commonly in the postero-lateral direction, and distant metastases to the bones, lung and liver according to the order of frequency. In this presentation, we report a case of temporal region metastasis in a 54 year old female patient with her history and clinical features.

**Keywords:** Poor differentiated carcinoma, nasopharynx, temporal region, ear metastasis

### Introduction

Nasopharyngeal carcinoma (NPC), is a head-neck cancer which is frequently observed in South Asia and its incidence in China is 15-25/100000. The age ranges seen are in the form of two peaks; at the end of second decade and sixth decade. In its etiology, environmental and viral factors play a role. Significant geographic or racial diffusion cause us to think that certain genetic and environmental factors play an important role. NPC can be seen in three histological types, good differentiated, poor differentiated and undifferentiated. The poor differentiated type is prone to lymph node metastasis and distant metastasis. The most used modality in treatment is radiotherapy (RT). Radical neck dissection or ganglion extirpation surgery can be performed for recurrent or residual NPC after RT or after clinical complete response. Also, when early local failure happens, surgery can be performed<sup>1-3</sup>.

We aimed to raise awareness about the uncommon metastasis of NPC. Preauricular and temporal region metastases were discussed in a patient who had been followed up for NPC. He applied to our center with a preauricular mass following chronic otitis symptoms.

### Case Report

A 54 year old female came with the complaints of leak left ear discharge and lack of motion in the left part of her face. From her anamnesis it was learned that she received RT because of NC. On physical examination she was found to have purulent discharge into the left outer ear canal and left sided grade 2 House-Brackmann peripheral

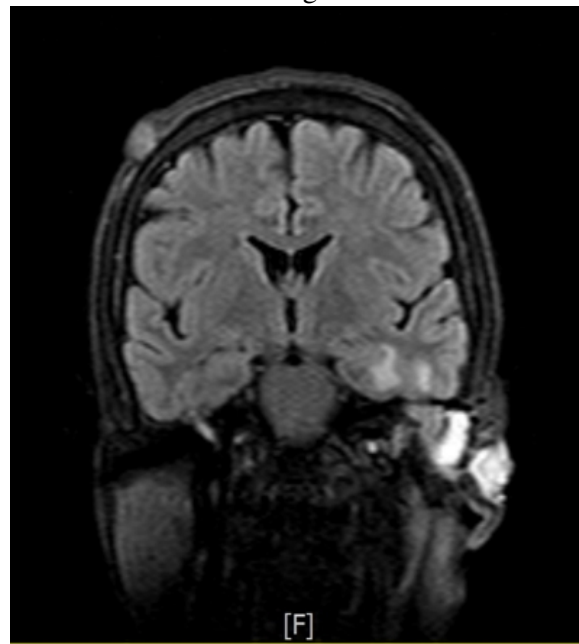
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facial paralysis. Temporal computed tomography (CT) and magnetic resonance imaging (MRI) scans showed evidence of chronic otitis media. (Figures 1 and 2)



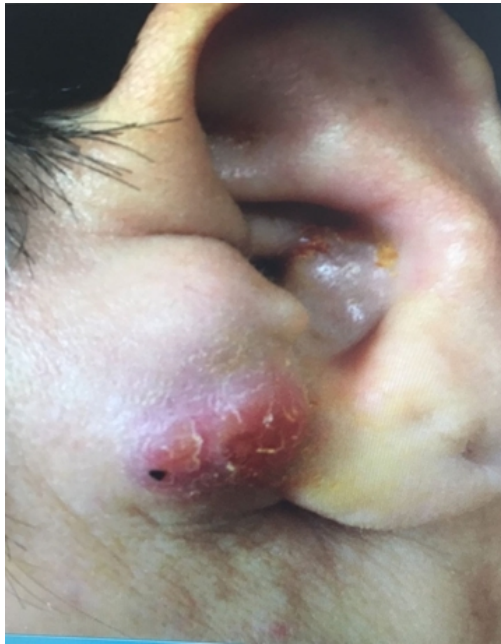
**Figure 1**  
Axial section CT image of metastatic mass



**Figure 2**  
Coronal section MR image of metastatic mass

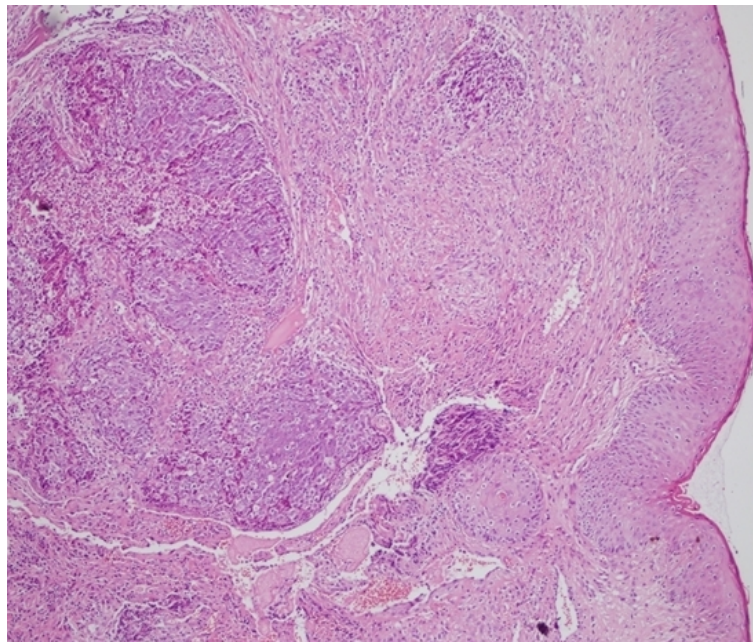
Left modified radical mastoidectomy and facial nerve decompression were performed to the patient who underwent urgent surgery due to facial paralysis. During facial nerve decompression, the histopathologic result of the granulation tissues at the tympanic segment level was came as “poor differentiated carcinoma” and chemoRT was applied to the patient due to NC metastasis. In postoperative follow ups her facial paralysis got better. At the postoperative 12th month, the patient who came with the left preauricular region mass again, in the physical

examination it was found that she has a rigid, fixed, painless skin overlying the left tragus and a mass of approximately 2x2 cm.(Figure 3)



**Figure 3**  
Clinical view of left preauricular region metastasis

After the incisional biopsy of the mass' result cam as "poor differentiated carcinoma" (figure 4), the patient was directed to RT again.



**Figure 4**  
Tumor islands under surface squamous epithelium (x200 H&E)

## Case Discussion

Nasopharyngeal carcinoma tends to have lymphatic spread and distant metastasis. NPC, patients frequently apply with a neck mass. In most of the NPC cases have the lymphatic spread is to the level of 2 lymph nodes of the neck region. On the other hand, distant metastases are to the bone, lung, and liver according to the order of frequency. Cervical lymph node metastases to the periparotid region lymph nodes are very rare. The patients with neck metastasis are rarely at risk for recurrence in the periparotid region lymph nodes, after radiotherapy. If the frequency of cervical regional metastases is assessed; retropharyngeal and lymph nodes in region 2 are the regions where NPC metastasizes most frequently<sup>3-7</sup>. Three years after our patient get the diagnosis of NPC, metastasis to the preauricular region was detected. These findings are not typical in the primary diagnosis in NPC patients.

Edematous and erythematous masses in the preauricular region need to be distinguished from infectious pathologies of dermoid cysts, preauricular fistulas, granulomatous infections, and parotid gland tumors<sup>8,9</sup>. When our patient's clinical and laboratory features evaluated, it was considered that the mass was not an inflammation of infectious origin and an incisional biopsy was performed for histopathologic examination. In histopathologic examination; large and distinct nucleated tumor cells were observed with nonspecific borders and also positive staining with p63 and Pan-CK was observed in these cells<sup>10</sup>.

In NPC, periparotid lymph node metastasis is seen in the frequency of 1-3.4%<sup>3</sup>. This metastasis, which is very rare among cervical lymph node metastases, significantly affects the prognosis. The cases with periparotid lymph node metastasis draw attention with bad prognosis and in terms of disease progression have similar characteristics to NPC cases<sup>1</sup>. In cases of recurrence in periparotid region, radiotherapy and chemotherapy are used as adjuvant therapy after surgery as they can be used alone for recovery treatment<sup>11</sup>

In conclusion, otitis media with effusion needs to be distinguished from a mass in the neck in NPC patients. However, as in our case, we think that metastasis of these tumors, especially in the preauricular region, even if they are rare, should be considered in the differential diagnosis of preauricular parotid masses.

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