KBB ve BBC Dergisi 24 (3):86-9, 2016

DOI: 10.24179/kbbbbc.2016-51176

Malignant Melanoma of the Sinonasal Cavity Appearing as a Second Primary in a Patient with Laryngeal Cancer

Larenks Kanserli Bir Hastada İkinci Bir Primer Tümör Olarak Sinonazal Kaviteden Kaynaklanan Malign Melanom

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ABSTRACT

The development of second primary tumour in the sinonasal cavity is quite rare in patients with head and neck cancer. In this study, we presented a patient who had total laryngectomy due to laryngeal cancer, and developed a second primary, malignant melanoma in the sinonasal cavity after 15 years. A 75-year-old male admitted to our clinic with headache and visual impairment in the right eye lasting for the last 1 week. A mass with a dimension of 57x27 mm that filled the right nasal middle meatus and extended to nasopharynx was determined in the endoscopic and radiologic assessment of the patient with a permanent tracheostomy. The result of the biopsy was reported as malignant melanoma. The aim of presenting this case is to indicate that second primary tumours may result from the sinonasal cavity although it is rare in cases with head and neck cancer. Furthermore, we aimed to specify that sinonasal tumour indicators can be masked as there is no nasal respiration in patients with permanent tracheostomy and the clinician working with these patients should be alert in terms of sinonasal tumours.

Keywords
Malign melanoma; paranasal sinus; second primer tumor; larynx carcinoma

ÖZET

Baş boyun kanserli hastalarda, sinonasal kavitede ikinci bir pirimer tümör gelişmesi çok nadirdir. Biz burada larinks kanseri nedeniyle total larenjektomi olan ve bunu takiben 15 yıl sonra sinonazal kavitede ikinci pirimer tümör olarak malign melanom tespit edilen bir olguyu sunduk. Yetmişbeş yaşında erkek hasta kliniğimize baş ağrısı ve sağ gözde 1 haftadır olan görme kaybı şikayetiyle başvurdu. Kalıcı trakeotomisi olan hastanın endoskopik ve radyolojik değerlendirmesinde sağ orta meayı dolduran ve nazofaringse uzanım gösteren 57x27 mm ebatlı kitle saptandı. Kitleden biyopsi yapıldı ve sonuç malign melanom olarak raporlandı. Bizim bu vakayı sunmaktaki amacımız baş boyun kanserli olgularda nadirde olsa second primary tümörlerin sinonasal kaviteden kaynaklanabileceğini belirtmektir. Ayrıca kalıcı trakeotomisi olan hastalarda nazal solunum olmaması nedeniyle sinonazal tümör belirtilerinin maskelenebileceğini ve bu hastalarda klinisyenin sinonazal tümörler açısından uyanık olması gerektiğini belirtmektir.

Anahtar Sözcükler
Malign melanoma; paranasal sinus; sekonder primer tumor; larenks karsinomu

Çalışmanın Dergiye Ulaştığı Tarih: **02.03.2016** Çalışmanın Basıma Kabul Edildiği Tarih: **21.07.2016**

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INTRODUCTION

The advancements in cancer treatment have increased the cure rates. Therefore, survival of the patients increased, as the prevalence of second primary tumors. The prevalence of second primary tumors in head and neck cancers varies between 10 and 15%.[1] In a study carried out with on 850 patients with head and neck cancers, a second focus emerged mostly in the tongue base (41%), followed by pyriform sinus (27%), larynx (23%) and tonsil (15%).[2] Approximately 40-50% of the second primary tumors appear in the upper respiratory and gastrointestinal tracts.[3] The most frequent sites for second primary tumors are the oral cavity, oropharynx, hypopharynx, esophagus and lungs. Second primary tumors appearing in the sinonasal tract are quite rare.[3,4] As far as we know, no sinonasal malignant melanoma case metasynchronous with larynx cancer has been reported in the literature.

Malignant melanomas rarely appear in the sinonasal cavity. Mucosal malignant melanoma makes up less than 1% of all malignant melanomas, and they constitute 4% of sinonasal tumors seen in the nasal cavity and paranasal sinuses.[5] Mucosal melanoma in head and neck area generally remains hidden before being symptomatic or is found by chance.

In this paper, a case with sinonasal malignant melanoma that had underwent total laryngectomy due to larynx cancer 15 years ago, and admitted to our clinic due to visual impairment was presented. The aim of presenting this case is to indicate that second primary tumors may appear in the sinonasal cavity, and to specify that symptoms of sinonasal tumors may be masked due to absence of is no nasal respiration in patients with permanent tracheostomy.

CASE REPORT

A 70-year-old male patient applied to our clinic with the complaint of headache and visual impairment in the right eye. The patient stated that he had had headache for the last 2 months, his vision decreased in the last week, and he had no other complaints. We learned that he was diagnosed with larynx cancer 15 years ago, and had total laryngectomy and then radiochemotherapy. The histopathological diagnosis was squamous cell carcinoma. A mass extending to nasopharynx filling the middle meatus in the right nasal cavity was determined on otolaryngological examination. On the ophthalmologic examination, atrophy in the optic disc and widespread chorioretinal atrophy were determined in the right eye, and the patient could only see hand movements. On the paranasal sinus magnetic resonance imaging (MRI), a heterogeneous mass lesion sized 57x27 mm was determined in the right nasal cavity, ethmoids and sphenoid sinus (Figure 1). A biopsy was made from the mass. The final histopathological diagnosis of the patient was reported as malignant melanoma. Endoscopic surgical excision was performed. Right optic nerve and carotid artery were not covered with bone. PET scanning did not reveal any local or distant metastases. Adjuvant radiotherapy was planned due to residue tumor risk.

DISCUSSION

Second primary tumors may be seen in the head and neck regions of the patients with head and neck cancers. Many hypotheses tried to explain the formation of second primary tumors. One of these hypotheses is the "field cancerization", which is still valid.[6] This hypothesis is based on the fact that the all upper aerodigestive tract is exposed to common carcinogens, resulting in the potential for malignancy in any of these areas. In addition to this, personal cancer tendency and the disturbance of DNA repair mechanisms as a result of radiotherapy and chemotherapy applied on this area may play a role in the development of second primary cancers.[7] It is rare to see the second primary tumor in the sinonasal cavity in head and neck cancers.[4,8] Furthermore, sinonasal tumors make up only 1% to 3% of all head and neck carcinomas.[4] Therefore, head and neck

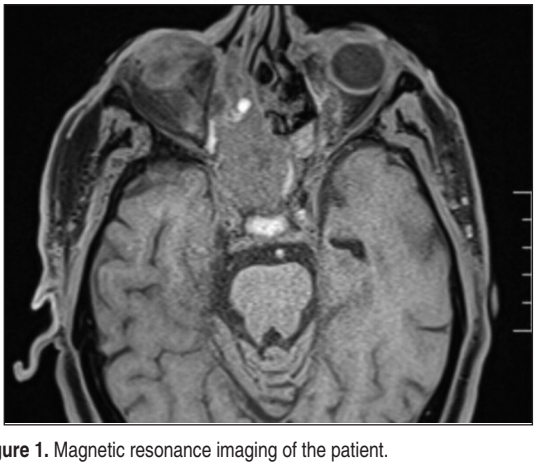

Figure 1. Magnetic resonance imaging of the patient.

surgeons frequently disregard the malignity in the sinonasal tract while assessing cancer patients in terms of the second primary.

Yamamoto et al. reported the risk of second primary tumor development in the sinonasal cavity they performed as 1.4% per year.[8] Wolpoe et al. followed 2475 patients with squamous cell carcinoma in the upper respiratory tract in terms of the development of secondary tumors.[4] They reported that second tumors developed in 5 (0.2%) of these patients in the sinonasal tract in a period of 8 to 60 months. It has been clearly seen that second primary tumors may develop in the sinonasal cavity of patients with head and neck cancer although this is rare. The histopathologically most prevalent form of head and neck cancers is an epidermoid carcinoma, and the most frequent second primary tumors in this area are also epidermoid carcinomas.[2,3,8] The development of sinonasal malignant melanoma metasynchronously to epidermoid larynx carcinoma has been reported in this case presentation for the first time in the literature.

Primary sinonasal tract malignant melanomas are quite rare.[5] The most frequent localizations are inferior and middle turbinates, and less frequently the nasal septum.[9] Since patients generally apply at an advanced stage and with big masses, it may not be possible to determine the site of origin of the tumor. Distant and neck metastasis are detected in one-third of the patients when they apply. The symptoms of sinonasal tract tumors imitate the symptoms of inflammatory paranasal sinus diseases, andusually include one-sided nasal obstruction, epistaxis and face pain.[4,8] The symptoms are generally neglected by the patients for a long time, and may not be realised until the mass becomes visible in the nasal vestibule, it leads to an external widening in the nose, or facial asymmetry. In the present case, there was no nasal respiration due to previous total laryngectomy. Thus, the patient did not feel any nasal obstruction although his right nasal cavity was obstructed by the tumor mass to a great extent. Epistaxis also probably did not develop since there was no nasal airflow. The same reason led to the masking of the symptom of other paranasal sinus diseases. Thus, the tumor could only be diagnosed at an advanced stage and following the visual impairment that developed due to optic nerve invasion. This case shows that sinonasal tumor findings can be masked in patients with tracheostomy, and the clinician should be alert in terms of the malignancies that may develop in the sinonasal tract in these patients.

The prognosis is poor in malignant melanoma of sinonasal tract. The most important risk factors for poor prognosis are local recurrence and distant metastasis.[10,11] Computed tomography may show soft tissue opacification and if any, bone erosion in these patients. MRI is beneficial to better differentiate the soft tissue masses from retained secretions in the paranasal sinuses, and better shows the skull base involvement. The radiological imaging of the neck, chest and abdomen is necessary to determine regional and distant metastasis.[11] Complete tumor excision is the generally accepted as the standard treatment for patients with malignant melanoma in the sinonasal tract. However, it is hard to perform in a number of cases due to the complex anatomy and proximity to vital structures in this region. Radiotherapy appears to be reserved as an adjuvant therapy or for palliative purposes.[10,11]

The aim of presenting this case is to indicate that second primary tumors in cases with head and neck cancer may appear in the sinonasal cavity although this is rare. Sinonasal tumor findings may be masked especially in patients with permanent tracheostomy as there is no nasal respiration, and the clinician should be alert in terms of sinonasal tumors in these patients. For this reason, we suppose that patients followed up due to head and neck cancers should be questioned for sinonasal tract symptoms even if they do not have sinus complaints, and routine endoscopic sinus examination must be performed. In this way, the early diagnosis of a new-developing lesion in those patients in active surveillance programme may be possible. Thus, early diagnosis and curative intervention of second primary cancers in the sinonasal region may be possible.

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