

# Metastatic Small Cell Carcinoma of the Palatine Tonsil: A Case Report

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## Palatin tonsilin metastatik küçük hücreli karsinomu: olgu sunumu

Metastatik tonsiller karsinom oldukça nadirdir. Olguların çoğunda tonsiller metastaz primer tümörün tanısından sonra görülür. En sık görülen primer bölgeler, böbrek, deri melanomu, akciğer ve memedir. Tonsiller tümörler içinde primer bölgeden metastazlar az bir yer tutar. 1547 tonsil tümörü içeren bir seride olguların yalnızca 12 tanesi metastatik tümör, geri kalanlar ise ya tonsilin primer kanseri veya lenfomasydı. Akciğerin küçük hücreli karsinomu sık görülür, oldukça malindir ve tüm bronşial kanserlerin %25'ini içerir. Tonsilin metastatik küçük hücreli karsinomu oldukça nadirdir. Burada akciğerin küçük hücreli kanserinden tonsile tek taraflı metastaz yapmış bir olgunun klinik ve histopatolojik özelliklerini sunduk.

**Key Words:** Tonsil tümörü, tümör metastazı, küçük hücreli akciğer karsinomu.

## Abstract

Metastatic tonsillar carcinoma is extremely rare. In the majority of cases, the tonsillar metastases manifest after the diagnosis of the primary tumor. The most common primary sites are the kidney, cutaneous melanoma, lung and breast. Metastasis from a primary neoplasm is responsible for only a small number of all tonsillar tumors. In a series of 1547 tonsillar tumors, only 12 were due to metastasis, the rest resulting from either primary carcinoma or lymphoma of the tonsil. Small cell carcinoma of the lung is a common, highly malignant neoplasm and accounts for approximately 25% of all bronchial carcinomas. Metastatic small cell carcinomas of the tonsil are extremely rare. We present the clinical and histopathological findings of a case of unilateral palatine tonsil metastasis originating from small cell carcinoma of the lung.

**Anahtar Sözcükler:** Tonsil neoplasm, neoplasm metastasis, small cell lung carcinoma.

Türk Otolarengoloji Arşivi, 2005; 43(2): 105-108

Turk Arch Otolaryngol, 2005; 43(2): 105-108

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## Introduction

Metastatic tumours are extremely rare in the palatine tonsils and are not mentioned in standart textbooks of pathology. In the reviewed literature, fewer than hundred cases of metastatic carcinoma of the palatine tonsil have been reported.<sup>1-3</sup> Of them, tonsil small cell carcinomas is quite rarely seen in the literature.

The clinical and histopathological picture of a metastatic small cell carcinoma of the tonsil in a 56-year-old man along with a review of the literature is presented.

### Case Report

A 56-year-old man was diagnosed with limited disease small cell carcinoma of the left lung in September 1998. Initially concurrent systemic chemotherapy (cisplatinium, etoposide) with normofractionated external beam radiotherapy to lung region had been performed. One month after the last radiotherapy dose, the patient recieved total 30 Gy external radiotherapy to the whole brain from parallel opposed pairs for prophylactic cranial irradiation. In july 1999 he was referred to the ENT department with a sore throat and left palatine swelling of one month duration. Examination revealed an ulcerated, erythematous left tonsillar mass of 3x4 cm (Figure 1). There was a fibrinous exudate on it. The surface was bleeding on touch, and was moderately soft on digital palpation. The mass was extending across the midline of the oropharynx. Indirect laryngoscopy revealed a normal larynx. No lymphadenopathy was found in the neck. Punch biopsy of the tonsillar tumour

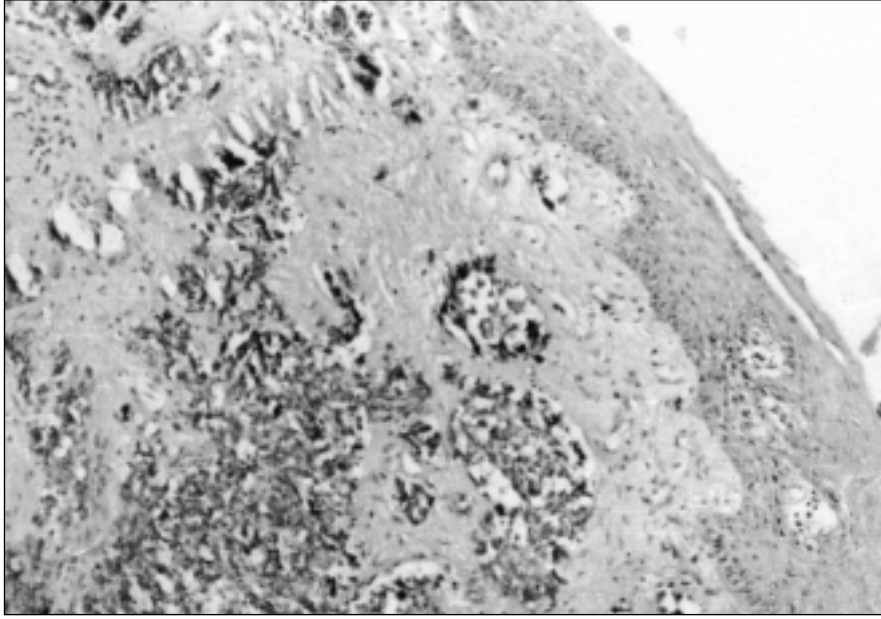
was performed. Histopathological examination of the left tonsil showed surface squamous epithelium with groups of small undifferentiated malignant cells in the underlying lamina propria (Figure 2). The pathologic findings were compatible with the original small cell carcinoma patterns of the lung (Figure 3). The interval of time between development of the primary bronchogenic carcinoma and the appearance of the tonsillar metastasis was 10 months. Our case was recieved 40 Gy external radiotherapy as a palliative treatment for the tonsillar tumour. The tonsillar tumour regressed with the symptoms in 5 month follow up. The average interval between appearance of the tonsillar metastasis and death was 6 months.

### Discussion

Metastatic tumours of the tonsil are extremely rare. The Armed Forces Institute of Pathology Registry data contains 1535 cases of malignant neoplasms of the tonsil, of which only 12 were metastatic in the origin.<sup>4</sup> Brownson et al1 reviewed 76 cases described in the literature-giving an indication of the relative frequency of occurrence of metastatic tumour: most common renal cell carcinoma (13) and melanoma (13) followed by



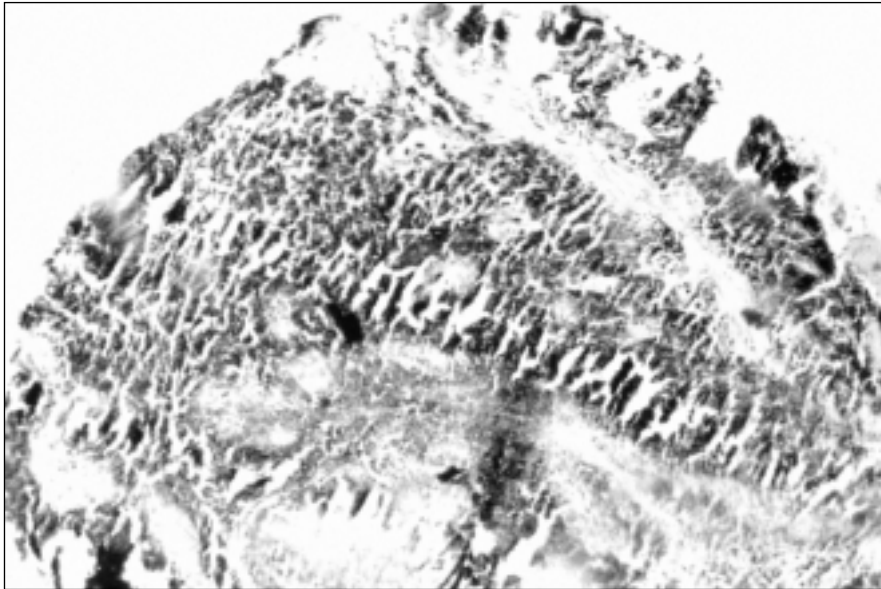
**Figure 1.** Tonsillar mass on inspection.



**Figure 2.** Infiltrating small cell carcinoma is seen under squamous epithelium (HE x100).

bronchogenic carcinoma (12), breast carcinoma (11), seminoma (6), gastric adenocarcinoma (5), rectal adenocarcinoma (2) gallbladder common duct carcinoma (2). Low et al reported only 92 cases in the world literature.<sup>5</sup>

Small cell carcinoma of the lung is common, highly malignant neoplasm that accounts for approximately 25% of all bronchial carcinomas and is characterized by a propensity to disseminate widely throughout the body at an early stage in its clinical course. Tissues that



**Figure 3.** Small or medium-sized, round or elongated cell and finely dispersed nuclear chromatin. Nucleoli are not evident. (HE x40).

are particularly susceptible include liver, abdominal lymph nodes, bone, brain, adrenal glands, skin, the kidneys and pancreas. The metastasis of this tumour to the palatine tonsil is unusual.<sup>6</sup>

Metastasis of small cell carcinoma of the lung to the tonsil is very rare and is not discussed in the standart textbooks of pathology. In a review of 76 cases of primary neoplasms complicated by tonsillar metastasis, 12 were found to be due to carcinoma of the bronchus. Small cell carcinoma was the predominant histological type with unclearly data.<sup>1</sup> Six new papers about small cell carcinoma metastatic to the tonsil were presented in reviewed literature.<sup>3,6-10</sup>

The palatine tonsils do not have afferent lymphatic vessels. Spread of secondary tumour to the tonsil is thought to occur as a result of retrograde movement of tumour cells through lymphatic vessels of the neck, either from the thoracic duct or from the veins of the neck, and from there to the tonsil itself.<sup>6</sup>

In general, metastasis to the tonsil are unilateral while bilateral deposits are common in melanoma, seminoma and carcinoma of breast or stomach. The mean interval time between development of the primary bronchogenic carcinomas and the appearance of the tonsillar metastasis was 8 months. The mean interval between development of the primary and death was 15 months. The average interval between appearance of the tonsillar metastasis and death was 5 months.<sup>1</sup>

In spite of significant advances in treatment, a cure for this disease has not yet to be found.<sup>6</sup> Abedi et al.<sup>7</sup> suggested a combination of chemotherapy and irradiation, and surgery will improve the patients survival. Unfortunately, this recommendation is based mainly on the fact that, in the past, no single form of therapy has been successful in the treatment of this aggressive neoplasm.

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