

## Basaloid squamous cell carcinoma of the tonsil

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### Abstract

Basaloid squamous cell carcinoma (BSCC) is a rare and aggressive variant of squamous cell carcinoma that mainly arises in the upper aerodigestive tract. The tonsil is a rare site of BSCC development and only fourteen cases have been reported in the international literature. We report here on the case of a 56-year-old man who presented with mild dysphagia. Computed tomography and examination of the oropharynx revealed a suspicious-looking, bulky mass on the right tonsil. Histopathological examination confirmed the presence of BSCC. The patient had cervical lymph node metastases and pulmonary metastases and was treated with chemotherapy and concurrent radiation. Despite the metastases the patient is still alive 3 years after the initial diagnosis. Hippokratia. 2012; 16 (1): 74-75

**Key words:** basaloid squamous cell carcinoma, tonsil

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Basaloid squamous cell carcinoma (BSCC) is a high-grade variant of squamous cell carcinoma which is located predominantly in the upper aerodigestive tract<sup>1,2</sup>. Most BSCCs are diagnosed at advanced clinical stages and they have an unfavorable prognosis because of the poor overall patient survival rates. There have been reported only 14 cases of BSCC of the tonsil in the literature so far. The aim of this study was to present a case of a BSCC of the tonsil.

### Case report

A 56-year-old man presented in our department in November 2007 with mild dysphagia. He was heavy smoker with no significant history of alcohol consumption. Macroscopic examination of the oropharynx revealed a suspicious-looking, bulky mass on the right tonsil (Figure 1). A prompt biopsy was taken from the lesion under local anesthesia. Histopathological examination revealed a basaloid squamous cell carcinoma. The neoplasm was composed of closely packed solid lobules of basaloid and squamous cells with peripheral palisading. Comedo-type necrosis was frequent. The stroma showed hyalinization and a moderate number of inflammatory cells (Figure 2).

A computed tomography (CT) scan of the neck confirmed the presence of the mass (size 5.4 x 4.3 x 7.5 cm). The lesion arised from the right tonsil extending from the floor of the mouth to the right vallecula. Because of its size it induced stenosis of the upper airway. However, the patient did not suffer from severe airway obstruction. Additionally, swollen cervical lymph nodes (over 14 mm) were found at the right side. A total-body CT scan dem-

onstrated multiple metastatic lesions in both lungs. Consequently, the carcinoma was defined as T3N1M1. All the other laboratory data were within normal limits.

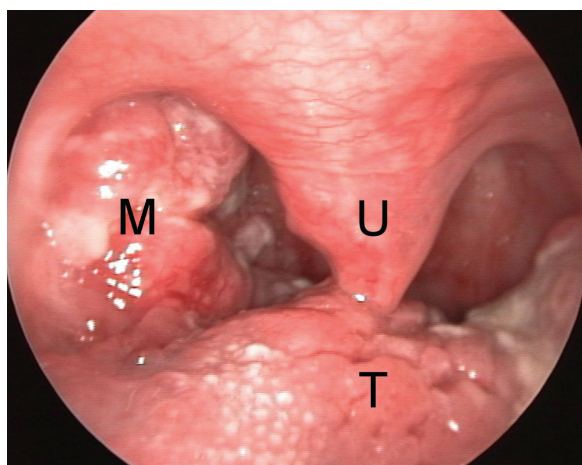
The patient was treated with eight courses of chemotherapy (four courses with cisplatin and docetaxel and four courses with cisplatin and cetuximab) and received supplemental radiation over two months. At the end of the therapy the patient was reviewed at the clinic. A CT of the neck showed residual moderate swelling in the right aryepiglottic fold, the right piriform sinus and the pre-epiglottic space. There was no evidence of metastases.

The patient did well until September 2010, when the last CT showed that multiple lung metastases were present again. Despite the metastases the patient is still alive 3 years after initial diagnosis. Publication of the patient's data was approved by the Ethics Committee of General Hospital of Volos.

### Discussion

BSCC has been defined in the 2005 WHO blue book as an aggressive high grade variant of squamous cell carcinoma composed of both basaloid and squamous components<sup>3</sup>. It appears in both sexes but predominates in males between 60 and 80 years old. Alcohol and tobacco consumption are frequent antecedents. Clinical signs and symptoms are not specific and are related to tumor location. The number of literature reports of BSCC in the head and neck region is less than 300. Only 14 of these cases concern lesions located at the tonsil. As a result, our case is considered to be very rare.

It has been reported that BSCC is an aggressive tu-

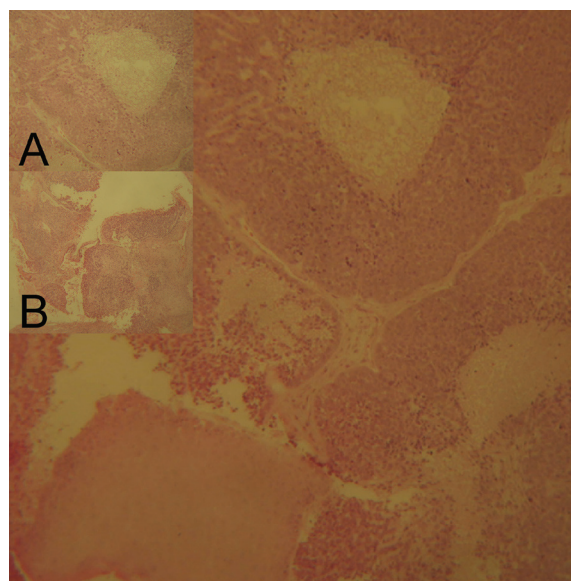


**Figure 1:** Clinical presentation of BSCC. The lesion arises from the right tonsil extending from the floor of the mouth to the right vallecula (M, mass; U, uvula; T, tongue).

mor with high rates of nodal (64%) and distant metastases (44%) accompanied by 38% mortality and median survival of 17 months<sup>4</sup>. Due to frequent lung metastases chest imaging should be a part of the initial and further evaluation. In our case cervical lymph node metastases and pulmonary metastases were present at initial diagnosis. However, our patient is still alive 36 months after diagnosis.

Because the cellular composition of BSCC is heterogeneous, establishing the correct diagnosis on biopsy may be difficult or impossible. The two tumors that cause the greatest difficulty in differential diagnosis are adenoid cystic carcinoma and neuroendocrine carcinoma. Because these tumors differ in their behavior and treatment, differentiation between them is important. A variety of cellular antigens such as keratins, vimentin, synaptophysin and chromogranin-A help to differentiate BSCC from other tumors<sup>5</sup>.

There is a great deal of controversy regarding the possible treatment modalities for BSCC. Different approaches have been suggested by several ENT centers with no standard protocol universally accepted<sup>6,7</sup>. In the case of resectable lesion with no evidence of metastases, complete surgical excision, supplemented by postoperative radiotherapy, is considered to be the most commonly accepted treatment<sup>6</sup>. However, in our case because of the pulmonary metastases a radical surgical intervention was not indicated. Thus, our patient was treated with chemotherapy and concurrent radiation. The response to therapy was quite good, as the metastases disappeared temporarily and the patient has already exceeded the median survival time.



**Figure 2:** Basaloid squamous cell carcinoma with peripheral palisading and central comedo-type necrosis (H & E staining, X100). (A) Basaloid component of the tumor (H & E staining, X200). (B) Squamous component of the tumor (H & E staining, X200).

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