

Basaloid Squamous Cell Carcinoma of the Tonsil: A Rare Case

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Abstract

Introduction: Basaloid squamous cell carcinoma is a rare clinical and pathological variant of squamous cell carcinoma. Firstly described in 1986, it is usually found in the upper aerodigestive tract in males over 60 years old.

Case report: We describe the case of a 53-year old male observed in the ENT Department with a left cervical tumefaction with normal ENT examination, despite the evidence of malignant cells in a recently performed ultrasound-guided fine-needle aspiration. Magnetic resonance imaging of the head and neck revealed a potential lesion in the left tonsillar fossa. The patient was submitted to partial pharyngectomy with bilateral neck dissection – histological examination was consistent with a pT1N2aM0 basaloid squamous cell carcinoma, leading to adjuvant chemotherapy and radiotherapy. No signs of active disease have been detected after 12 months of follow up.

Discussion: Basaloid squamous cell carcinoma of the palatine tonsil should be always considered in the differential diagnosis of cervical adenopathy of unknown primary carcinoma.

Keywords: Basaloid squamous cell carcinoma; Tonsil

Introduction

Basaloid squamous cell carcinoma (BSSC) is a distinct and rare variant of conventional squamous cell carcinoma (SCC), predominantly localized in the upper aerodigestive tract [1-10]. First described by Wain et al. in 1986, it has a strong predilection for sites such as base of the tongue, hypo pharynx and supraglottic larynx [5,8-10]. BSSC of the palatine tonsil is extremely uncommon with less than 20 cases described in English literature [1,2,5].

Case Report

A 53-year-old caucasian man presented in our department in December 2013 with a 3-week long history of left neck mass. He had a 45 pack-year history of cigarret smoking, occasional alcohol consumption and no known illness. There was no history of odynophagia, hoarseness, fever or weight loss. On clinical examination there was a 4 cm hard, fixed and non tender mass in left II-III ganglionar group levels. Ultrasound-guided fine-needle aspiration of the neck mass revealed the presence of malignant cells. Magnetic resonance imaging (MRI) of the head and neck (Figure 1) confirmed the presence of metastatic cervical lymph node (size 3,6 × 3,8 cm), and a contrast-enhanced swelling in the left tonsillar fossa. A whole body 18-fluorodeoxyglucose (FDG) positron emission tomography (PET) scan (Figure 2) showed two large foci of intense FDG uptake in left neck region and in the ipsilateral side of oropharynx, respectively. Thoracic tomographic scan, bronchofibroscopy, complete blood count and biochemical parameters were within normal ranges. The patient underwent partial pharyngectomy associated with a left type 3, modified radical neck dissection. The histopathological examination of the pharyngeal specimen showed tonsillar tissue with a infiltrating basaloid squamous cell carcinoma (1,7 × 1,6 cm) with a narrow deep resection margin (0,2 cm) (Figure 3). The immunohistochemical study of malignant cells was positive for cytokeratins AE1/AE3. The neck dissection specimen revealed metastases in 1 of 19 lymph nodes with extracapsular spread. The patient was pathologically staged as T1N2aM0 and received adjuvant chemoradiotherapy. Follow up did not show any evidence of complications, local recurrence or distant metastasis until January 2015.

Discussion

BSSC occurs in both sexes but predominates in males between

60 and 80 years old [1,2,5,8,9], and shows strong association with tobacco and alcohol consumption [1,5,8-10]. The possible relationship of BSSC and viruses was traditionally a matter of debate [5], but recent investigations shown an association between high risk human papillomavirus (HPV) type 16 with oropharynx BSSC [10].

On clinical observation, the tumor frequently presents as an exophytic mass that may have ulcerations, [5] in the case presented, however, the tumor was deep in the tonsil, and completely hidden on physical examination.

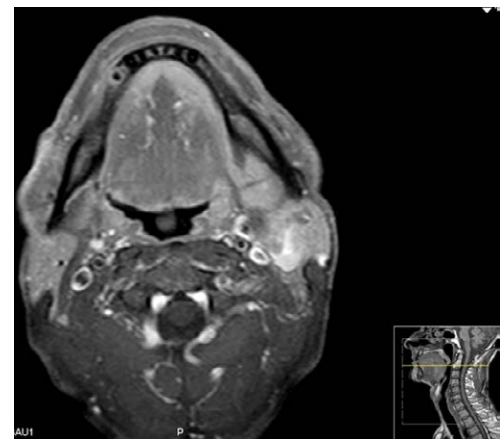


Figure 1: Axial contrast enhanced MRI showing a left cervical adenopathy and a swelling in the left tonsillar fossa.

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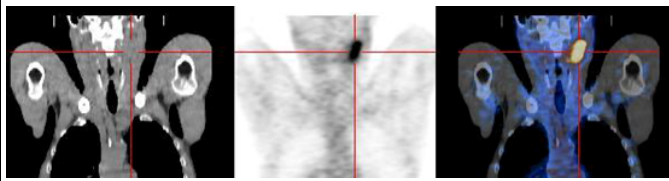


Figure 2: PET scan showing a FDG uptake in the left side of oropharynx.

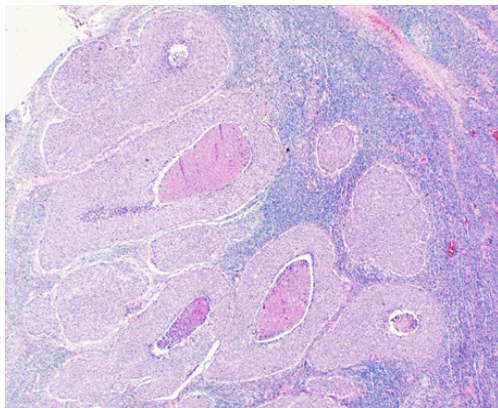


Figure 3: Microphotograph showing lymphoid tissue (tonsillar) with an infiltrating neoplasm (HE stain, X100).

BSSC is believed to arise from multipotential primitive cells in the basal layer of the surface epithelium or from the salivary duct lining epithelium [5, 7-9]. Its histological diagnosis still remains on hematoxylin and eosin sections by recognizing the typical four diagnostic criteria defined by Wain et al. at 3 decades ago [4,5]: (1) solid group of cells in a lobular configuration, closely opposed to the surface mucosa; (2) small, closely packed cells with scant cytoplasm; (3) hyperchromatic nuclei without nucleoli; and (4) small, cystic spaces containing mucin-like material [2,4,5]. By immunohistochemistry, BSSC expresses cytokeratin and epithelial membrane antigens [2,5,8-10], like in the case presented, and which may be of help in the diagnosis at an early stage [2].

The differential diagnosis of FDCCS includes adenoid cystic carcinoma, basal cell carcinoma, adenosquamous carcinoma and neuroendocrine carcinoma [1,2,5,7,9,10].

Because most cases of BSSC present with advanced-staged tumors, it was initially believed that the histological features were reflective

of its clinical aggressive behavior characterized by extensive nodal involvement and distant metastases [1,4,5,7,8,10]. There are recent studies; however, showing that BSSC may exhibit a dual prognosis based on HPV status, with better prognosis in patients who exhibit high-risk HPV [9,10].

There is no established consensus for treatment of BSSC. While some authors advocate more aggressive treatment with surgical excision and cervical dissection supplemented with adjuvant chemoradiotherapy in all cases [1,5,6,8], others advice a management similar to conventional SCC [10].

Conclusion

BSSC of the tonsil is a rare entity that should be considered in the differential diagnosis of the cervical adenopathy of unknown primary carcinoma.

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