

**BASALOID SQUAMOUS CELL CARCINOMA OF ORAL CAVITY: A CASE REPORT**Dr. Swagata Dowerah<sup>1</sup> and Dr. Sikha Agarwal\*<sup>2</sup><sup>1</sup>Assistant Professor, Department of Pathology, Silchar Medical College, Assam, India.<sup>2</sup>Post Graduate Trainee, Department Of Pathology, Silchar Medical College, Assam, India.**\*Corresponding Author: Dr. Sikha Agarwal**

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**ABSTRACT**

Basaloid squamous cell carcinoma (BSCC) is an aggressive, high-grade, variant of squamous cell carcinoma (SCC). It is uncommon in the oral cavity but slightly more common in the oropharynx. We report a case of 65 yrs female presenting with an ulceroproliferative growth at the base of tongue measuring 2×2 cm with burning sensation and diffuse pain since 6 months. No nodes were palpable. Incisional biopsy was performed and tissue sent for histopathological examination. H & E stained sections showed two types of cell population i.e. basaloid cells and squamous cells. Basaloid cells were arranged in nests or islands with cells showing peripheral palisading in background of squamous cell carcinoma. A diagnosis of basaloid squamous cell carcinoma was made.

**KEYWORDS:** Basaloid squamous cell carcinoma, high-grade, oral cavity.**INTRODUCTION**

Basaloid squamous cell carcinoma (BSCC) was first described in the upper aerodigestive tract by Wain et al in 1986. Basaloid squamous cell carcinoma (BSCC) as defined by the World Health Organization is an aggressive, high-grade, variant of squamous cell carcinoma (SCC) composed of both basaloid and squamous components. The tumor arises most frequently in the head and neck region, the most common sites being epiglottis, piriform sinus and base of the tongue. Other less common sites of origin include the floor of the mouth, oral mucosa, palate, tonsils, sinonasal tract, nasopharynx and trachea.<sup>[1]</sup> The prognosis of oral BSCC is reported to be worse than conventional BSCC due to the advanced stage at which cases have been discovered.<sup>[2]</sup> Although BSCC is regarded as a variant of squamous cell carcinoma, it displays distinct morphological and biological features as well as a different clinical course. Despite its distinct histologic features, BSCC has been mistaken for adenoid cystic carcinoma, adenosquamous carcinoma, small cell carcinoma and neuroendocrine tumors.<sup>[3,4]</sup>

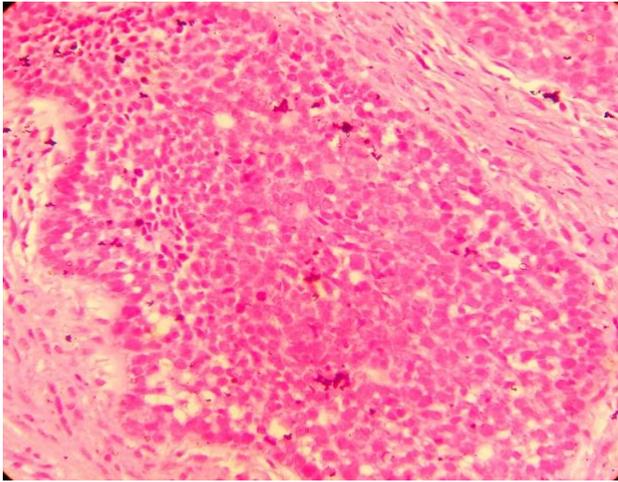
We report a case of basaloid squamous cell carcinoma in oral cavity in a 65 years old female.

**CASE REPORT**

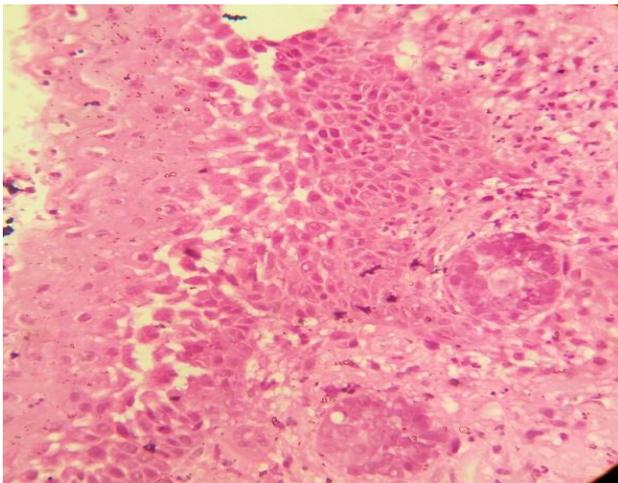
A 65 year old female presented with complaint of burning sensation and diffuse pain at the base of tongue since 6 months. There was gradual increase in size of the lesion. There was difficulty in opening the mouth and

performing other tongue movements. There was no history of tobacco chewing. On examination, there was an ulceroproliferative growth at the base of tongue measuring 2×2 cm with indurated margins and tenderness on palpation. Regional lymph nodes were not palpable. Chest X-ray and other routine investigations were unremarkable. Incisional biopsy was performed and specimen sent for histopathology. On gross examination, there was a small bit of tissue measuring 0.5×0.5 cms with irregular surface.

H & E stained sections showed cells arranged in nests. There were two types of tumor cells-basaloid and squamous. The predominant cell population was that of basaloid, closely apposed cells with scanty cytoplasm and hyperchromatic nuclei. Nucleoli were variable. Islands of tumour cells showing peripheral palisading and central necrosis were seen. Many apoptotic cells and mitotic figures, including atypical mitosis were present. Tumour was seen to arise from the surface epithelium which was focally dysplastic. A diagnosis of basaloid squamous cell carcinoma was made.



**Fig 1: Showing nests of basaloid appearing cells in a fibrous stroma (HandE,40X).**



**Fig 2: Showing another area with dysplastic squamous epithelium (HandE,40X).**

## DISCUSSION

The BSCC has been described mostly among men in their sixth to seventh decade, and has been associated with tobacco and alcohol abuse. Most instances of BSCC present at a high tumor stage and seem to have a propensity for lymph node and systemic metastases<sup>5</sup>. The BSCC cells are referred to as basaloid because of their immature appearance, and they resemble cells of the basal layer of typical stratified squamous epithelium. BSCC has two distinct phenotypes: basaloid and squamous. The most common BSCC growth pattern is solid nests with a typical cell population, basaloid at the periphery and squamous at the center.

Our case was reported in an elderly female and no association with tobacco or alcohol intake. Also there was no association with lymph node and systemic metastases. The histological picture was consistent with that of the Wain's criteria i.e. peripheral palisading, association with SCC, high nuclear-cytoplasmic ratio, high mitotic rate and solid growth.

The differential diagnosis of BSCC in oral cavity includes adenoid cystic carcinoma, polymorphous low grade adenocarcinoma (PLGA), basal cell adenocarcinoma (BCA), salivary duct carcinoma (SDC), and adenosquamous carcinoma (ASC).

Ide et al. reported the following helpful features in differentiating BSCC from solid ACC:

- (1) classic cribriform patterns are limited in BSCC.
  - (2) well formed tubular structures are almost always present, even in solid ACC, while nuclear pleomorphism, mitoses, and necrosis are rare.
  - (3) focal squamous differentiation in the basaloid nests is rarely evident in ACC, and
  - (4) ACC does not contain SCC foci or exhibit carcinomatous changes in the surface epithelium.<sup>[6]</sup>
- Our case did not have any cribriform structures or well formed tubular structures, so ACC was ruled out.

Adenosquamous carcinoma can be distinguished from BSCC based on evidence that adenosquamous carcinoma demonstrates an involvement and association with ductal epithelium and mucinous glands.<sup>[7]</sup>

The key distinguishing feature between BSCC and BCC is the presence of squamous differentiation and invasive squamous cell carcinoma, both of which forms an integral component in BSCC.

An accurate diagnosis of BSCC is critical because this neoplasm is biologically more aggressive than the conventional squamous cell carcinoma and carries with it a grave prognosis.<sup>[8]</sup> Soriano's study showed fewer loco regional failure related deaths for BSCC, while the rates being worse for distant metastases and overall survival. There was 6 times higher risk of distant metastasis in BSCC compared to usual type of SCC.<sup>[9]</sup> Therefore, a chest CT and FDG-PET is recommended in all cases to rule out early distant metastasis.

Since the tumor shows a propensity for early metastases to regional lymph nodes and visceral locations, a multimodality treatment approach including radical surgical excision, neck dissection, radiotherapy and often chemotherapy is preferred.

We report this case due to the rarity of occurrence of basaloid squamous cell carcinoma in oral cavity and the need for extensive work up due to its poor prognosis.

## CONCLUSION

The diagnosis and management of BSCC should be done cautiously. As the tumor is almost always associated with an aggressive course and poor prognosis, once diagnosed, the patient should be extensively worked up to rule out the occurrence of subclinical metastatic lesions.

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