**CASE REPORT**

**Basaloid Squamous Cell Carcinoma – A Case Report**  
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**Abstract:**  
Basaloid Squamous Cell Carcinoma (BSCC) is a histologically distinct variant of Squamous cell carcinoma. It occurs in various sites of the head and neck region and is believed to carry a dismal prognosis. In the oral cavity the palate is a very rare site and only few cases have been reported in the international literature. This paper reports a case of Basaloid Squamous Cell Carcinoma on the soft palate.

**Key Words:** Basaloid Squamous Cell Carcinoma, Squamous Cell Carcinoma, Oral Mucosa, etc.

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**Introduction**  
Basaloid Squamous Cell Carcinoma is a rare(1) and aggressive variant of Squamous Cell Carcinoma that was first identified as a separate histopathological entity by Wain(2) and others, and was included in the revised edition of WHO classification in 1991(3). It tends to have an aggressive clinical course as compared to age, sex and conventional Squamous Cell Carcinoma with frequent local recurrence, regional and distant metastasis.

**Case Report:**  
A 76 yrs old male patient reported to Department of Oral and Maxillofacial surgery, H.K.E’S.S.N.Dental college, Gulbarga with a swelling on the upper right back region for last 6 months. Extraoral examination revealed no significant findings. On intraoral examination a swelling of size 2 X 2 cm was noted, on palpation the swelling was firm in consistency, with a verrucous appearance and no surface ulceration. Oral hygiene was poor, with generalized stains and calculus. Left submandibular lymph nodes were enlarged and were tender. A provisional diagnosis of carcinoma of oropharynx was given. Excisional biopsy was done and the specimen was fixed in formalin and sent for routine histopathological examination. On microscopic examination the section revealed hyperplastic and proliferative squamous epithelium particularly of the basal layer with infiltration into the connective tissue with atypical features (Figure 1, Figure 2).

The cells were arranged in nests with peripheral palisading. Dense inflammatory cell infiltration was also seen. A diagnosis of Basaloid squamous cell carcinoma was given.

**Discussion:**  
Variants of squamous cell carcinoma frequently arise within the mucosa of upper aero digestive tract, accounting for up to 15% of SCCs in these areas(4). The variants include verrucous, exophytic or papillary, spindle-cell (sarcomatoid), Basaloid and adenosquamous carcinoma. Each of these variants has a unique histomorphologic appearance, which raises a number of different differential diagnostic considerations, with the attendant clinically relevant management decision.

Verrucous squamous cell carcinoma has a broad border of pushing infiltration of a non-dysplastic squamous epithelium, essentially devoid of mitotic figures, displaying hyperkeratosis and elongated rete pegs. Papillary and exophytic SCC have papillary or exophytic architecture, but have a malignant cytologic features within the epithelium. Spindle cell carcinoma is an SCC blended with spindle cell morphology, frequently mimicking other mesenchymal tumors. Basaloid SCC is a high grade SCC variant with small cells arranged in a palisaded architecture, with a hyper chromatic nuclei and only focal areas of squamous differentiation. Adenosquamous carcinoma is a rare variant, which is a composite of adenocarcinoma and squamous cell carcinoma often with areas of transition.

BSCC is considered as a variant of SCC with highly invasive character with a predilection for multifocal involvement of the oropharynx (base of the tongue), pyriform sinus, supraglottic larynx, hypo pharynx and palatine tonsil. Primarily affects men in the seventh decade of life with frequent cervical lymph node metastasis. Macroscopically these tumors are usually firm to hard, with associated central necrosis occurring as exophytic to nodular masses, measuring up to 6 cm in great...
dimension. Histologically the infiltrating tumor offers a variety of growth patterns, including solid lobular, cribriform, cords, trabeculae, nests and glands or cysts(4).

The depth of invasion may not be obvious. Vascular or lymphatic perforation is common whereas neurotropism is less frequent. Surface ulceration is frequently noted. The Basaloid component is the most diagnostic feature; incorporating small closely opposed moderately pleomorphic cells with hyper chromatic nuclei and scant cytoplasm into a lobular configuration with peripheral palisading, closely associated with or involving the surface mucosa. These Basaloid regions are in direct continuity with areas of squamous differentiation, including abrupt keratinization in the form of squamous pearls, individual cell keratinization, dysplasia or squamous cell carcinoma (in situ or invasive). A spindled squamous cell carcinoma may also be seen in rare cases. The Basaloid component frequently demonstrates marked mitotic activity as well as comedo necrosis in the centre of the neoplastic islands. The tumor cells are separated by a prominent dense pink hyaline material and small cystic spaces containing mucoid type material. The hyaline material may be arranged in a cylinder, rimmed by cells. In metastatic disease, both Basaloid and squamous cell components can be seen, although the Basaloid features will be prominent.

Epithelial markers such as cytokeratin, CAM 5.2, epithelial membrane antigen, CK7, and 34ßE12 are consistently reactive, whereas no reaction is present with neuroendocrine markers.

Yoshihiro et al(5) studied the proliferative activity of two cases by employing a sensitive argy-rophic nuclear organizer region (AgNOR) staining method. The number of AgNOR per nucleus of the BSCC was higher than that of any other SCC cases. The results support the opinion that BSCC of the oral mucosa has a worse prognosis than conventional SCC.

Though only a few cases have been reported in the literature, it is most commonly seen on the tongue in the oral cavity. Till now approximately 45 cases have been reported in the oral cavity with a strong predilection for the base of the tongue and floor of the mouth. Clinical and histological features matched the observations initially described by Wain et al(2) and Yu et al. They suggested the following characteristic features to diagnose a case of BSCC. These features include predilection for head and neck region in men in their 60s and 70s, an ulcerated or exophytic mass with submucosal soft tissue infiltration, solid Basaloid appearing dysplastic islands with biphasic pattern showing comedo type necrosis and pseudo-glandular pattern, abrupt foci of squamous differentiation with or without keratin pearls and surface mucosal epithelium showing dysplastic features(6).

BSCC can be misdiagnosed as adenoid cystic carcinoma, adenosquamous carcinoma, salivary duct carcinoma, small cell undifferentiated carcinoma and polymorphous low grade adenocarcinoma(7).

Adenoid cystic carcinoma does not disclose any squamous differentiation and usually metastasizes to distant sites rather than cervical lymph nodes and ACC usually does not have prominent pleomorphism, mitoses or necrosis. ACC often shows immunocytochemical reactivity for S-100 and smooth muscle actin but BSCC is negative for both(8). Nasopharyngeal BSCC has been shown to be associated with Epstein-Barr virus, but this has not been revealed in BSCC of other head and neck sites(4). Cutaneous basal cell carcinoma may invade into the upper aero digestive tract, but it has different histomorphologic features(4).

Small cell undifferentiated carcinoma is rare in the oral cavity, sometimes with pseudo-glandular space and focal necrosis, but squamation is exceptional. Its immunohistochemical activity for neuroendocrine markers or ultrastructural evidence of neurosecretory granules are not the features of BSCC(8). Tubular structures, bland and uniform nuclear features, diverse morphological patterns in polymorphous low grade adenocarcinoma can be used to distinguish them from BSCC(6). Focal necrosis and squamous differentiation usually seen in BSCC are less frequent in basal cell adenocarcinoma(9). Eosinophilic cytoplasm and irregular shaped cystic spaces lined by irregular shaped cystic spaces lined by papillary projections revealed by papillary projections revealed by salivary duct carcinomas are not encountered in BSCC(6). Adenosquamous carcinoma is usually easy to distinguish from BSCC by real duct structures(10).

**Conclusion:**

In our case though the cells showed the Basaloid appearance arranged in nests with peripheral palisading and hyperplasic epithelium with infiltration into the underlying connective tissue, which were consistent with BSCC, but still immunocytochemical markers for epithelium and neuroendocrine markers would be a helpful diagnostic markers for the confirmation of the tumor. In conclusion, BSCCs have been reported to have poorer prognosis as compared to SCCs.
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