Case Report

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BASALOID SQUAMOUS CELL CARCINOMA- A RARE METATYPICAL TUMOR- CASE REPORT

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ABSTRACT

A rare kind of squamous cell cancer is called basaloid squamous cell carcinoma occurring in sixth to seventh decade of life with male predilection. It preferentially occurring in upper aerodigestive tract. Rare case reports are presented in the classical age group with a poor prognosis. A 46 year's senior old male patient showed up to otorhinolaryngology department with chief complain of growth on base on left side of tongue and supra-glottic growth. On radiological evaluation by Multislice CT Scanning, a heterogeneously enhancing mass lesion measuring approximately 25×38 mm was noted at the base of tongue. On cytological evaluation of the lesion, highly cellular smear showed malignant morphology of the cells. Histological evaluation reveals a tumour mass in which neoplastic cells were composed of two different cell types – the majority of the cells population consisted of basaloid cells with abrupt association of foci of squamous cells suggesting basaloid variant of Squamous cell carcinoma. We brought this case for acknowledgment due to its rare occurrence, lower age of presentation, poor prognostic value as well as high metastatic potential.

KEYWORDS: Basaloid, Squamous cell carcinoma, Upper aerodigestive tract.

INTRODUCTION

In 1986 Wain et al described first case of Basaloid variant of Squamous cell carcinoma (BSCC) in the upper aero-digestive tract (1). It is a rare form of SSC (squamous cell carcinoma) that typically affects the base of the tongue but can also grow in the hydropharynx, oropharynx, and larynx.[2] According to estimates, 2percent of all neck and head squamous cell carcinoma and BSCC is a classification given to 5% among all node-positive SCCS.[3, 4] Males in their 60s and 70s are typically affected. [5,6] There have been some reports connecting it to drinking and smoking. [7]

CASE REPORT

A 46 years senior male patient showed up to otorhinolaryngology department with chief complain of growth on base on left side of tongue and supra-glottic growth.

On radiological evaluation by Multislice CT Scanning, a heterogeneously enhancing mass lesion measuring approximately 25×38 mm was noted at the base of tongue. Anteriorly involving left genioglossus muscle. It was crossing midline on posterior aspect of tongue. Postero-inferiorly it was involving valleculla, glosso-epiglottic fold, pre-epiglottic region and epiglottis and reaching upto left aryepiglottic fold with mild effacement of ipsilateral pyriform sinus.

On cytological evaluation of the lesion, highly cellular smear showed sheets of atypical squamous cells as well as scattered dyskeratotic cells which were round to polygonal in shape having circular to oval hyperchromatic nuclei with a high nuclear-cytoplasmic ratio and moderate amount of eosinophilic cytoplasm. Background showed marked tumour diathesis and inflammation.

Histological evaluation reveals a tumour mass in which neoplastic cells were arranged in nests, trabeculae and sheets. Morphologically the tumour consisted of two different types of cells. One of the population of neoplastic cells was basaloid type which were with little cytoplasm, hyperchromatic nuclei, and close proximity with inconspicuous to prominent nucleoli. Tumor cell islands with peripheral palisading were seen (Figure 1 and 2). These basaloid cells suddenly were associated with abnormal squamous foci. (Figure 3).

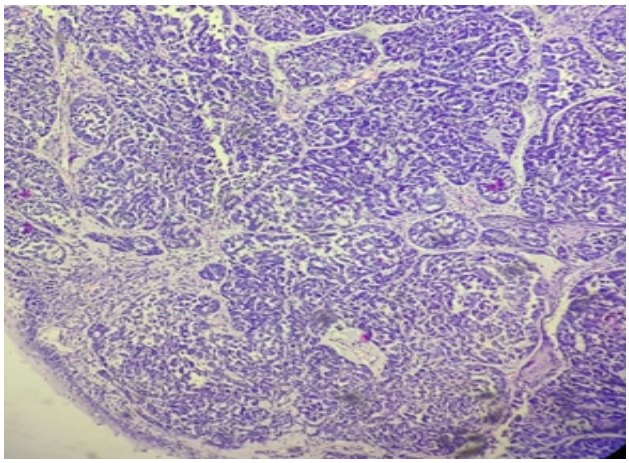

Fig. 1: H & E Stain 10x Showing Peripheral Palisading of the Basaloid Cells

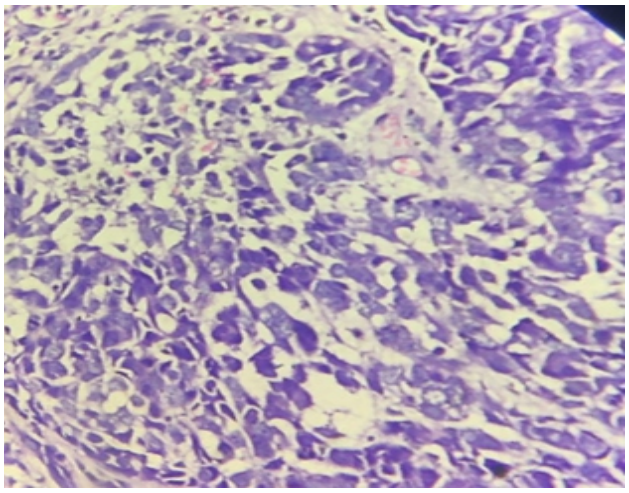

Fig. 2: H&E Stain 40x Showing Basaloid Cells Which Were Closely Apposed With Scanty Cytoplasm and Hyperchromatic Nuclei with Inconspicuous to Prominent Nucleoli

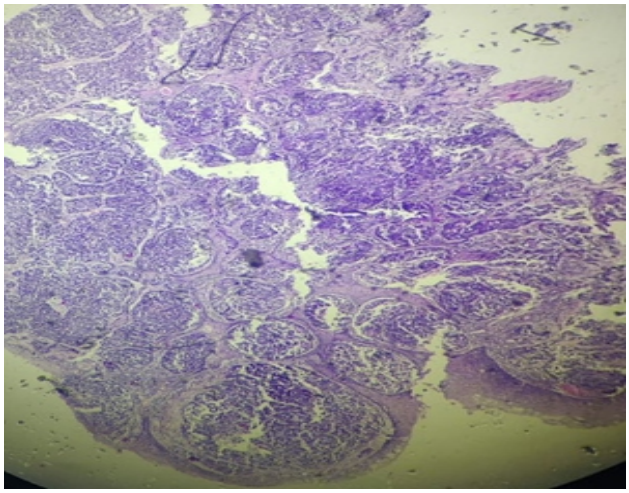

Fig. 1: H&E Stain 4x View Showing Abrupt Transition of Squamous Lining Epithelium With That of the Nest of the Basaloid Tumour Cells

Numerous apoptotic cells as well as mitotic signs, including abnormal mitosis, were present. It was demonstrated that the focally dysplastic surface epithelium might grow tumours. (Figure 3). Interspersed with these tumour cells were thin walled endothelium lined blood vessels as well as areas of haemorrhage.

DISCUSSION

A rare form of squamous cell cancer is called BSCC occurring at various anatomic locations, frequently involving A considerable preference for the base of the tongue exists in the upper aero-digestive tract followed by supra-glottic larynx and hypopharynx, though sites like anus, thymus and uterine cervix can also be involved. [8]

Discussing about the diagnostic differentials of BSCC; tumours of salivary gland origin such as adenoid cystic carcinoma (ACC) is the first thing comes into the mind. [9] This is important to rule out BSCC from ACC because it carries better assessment and has altogether a disparate management protocol. BSCC and ACC both histologically have microcystic spaces which are PAS positive. However, BSCC are more pleomorphic, mitotically active and show more necrosis than ACC. Adnexal tumours like ACC do not exhibit dysplasia or continuity of the tumour with the surface epithelium; which are quite distinct in BSCC. However, it is almost impossible to differentiate BSCC from ACC if the minimal squamoid component, particularly in small biopsies, is ignored or not sampled.

Other differential which can be included is Basal Cell Carcinoma as these tumour are composed of nests of neoplastic cells which shows palisading arrangement of basaloid cells around the tumour nests. The cells have high nucleo-cytoplasmic ratio, Hyperchromatic nuclei with little amount of cytoplasm. Surrounding the nests of tumour cells is stroma that exhibits retraction spaces in between the tumour islands and stroma, which is absent in case of BSCC. Necrosis is typical, taking the form of single cell necrosis and central comedo necrosis. The second important point of differentiation between BSCC and BCC is the presence of a squamous component, which comprises the following characteristics: nearby foci of standard squamous cell carcinoma, dysplasia, or carcinoma in situ of the surrounding mucosa in early neoplasms. In most of the cases, these two tumours can be differentiated easily on the morphological features with the help of H&E stained tissues. Immuno-histochemical markers are quite helpful for differentiating BSCC and BCC. Cytokeratin (CK) stains, such as HWCK, cytokeratin cocktail (AE1/AE3), and cytokeratin 34bE12, are virtually always positive for BSCCs (CK 903). [10]

As our case was quite straight due its location as well as morphology, we did not need further IHC work up to confirm or rule out the differentials.

It is a clinically aggressive tumour with significant rates of nodal (64%) and distant (44%) metastasis. [8] In comparison to the typical kind of SCC, Soriano et alcase-control .'s study's findings [11] revealed a 6 times greater risk of distant metastasis. In this case also at the time of presentation the nodal as well as lung metastasis was present which was detected by multislice CT scan imaging studies.

This case also had poor prognosis as the patient died within one month of the diagnosis.

CONCLUSION

Basaloid Sqaumous cell carcinoma has a rarer subtype of cell carcinoma. And it has very high metastatic potential with some studies showing its poorer prognostic significance.

We brought this case for acknowledgment due to its rare occurrence, lower age of presentation, poor prognostic value as well as high metastatic potential.

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