

Basaloid Squamous Cell Carcinoma of the Right Parotid Gland

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| Received: 27.01.2019 | Accepted: 06.02.2019 | Published: 15.02.2019

DOI: 10.36347/sjmcr.2019.v07i02.004

Abstract

Case Report

Basaloid squamous cell carcinoma (BSCC) was first described in the head and neck region by Wain et al in 1986 and described by Shivakumar in 2014. It was originally described as a high-grade variant of traditional squamous cell carcinoma (SCC) and differentiated by its characteristic histopathologic findings of a biphasic pattern, including both basaloid and squamous features.

Keywords: Parotid, basaloid, squamous, malignancy.

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INTRODUCTION

Basaloid squamous cell carcinoma (BSCC) is an aggressive variant of squamous cell carcinoma that has a predilection for the upper aerodigestive tract (oral cavity, oropharynx, esophagus and larynx) but also occurs in other sites such as lung. BSCC of upper aerodigestive tract typically occurs in old age and commonly affects males [1]. Similar to conventional SCC, BSCC also shows strong association with tobacco and alcohol. Clinically, it is an aggressive tumor with high rates of nodal (64%) and distant metastasis (44%)[2]. The clinical features of BSCC are similar to conventional SCC; therefore, it becomes very difficult to distinguish it from SCC. Therefore, its diagnosis depends mainly on the histopathologic and immunohistochemical features. Differential diagnosis for BSCC includes basal cell carcinoma, adenoid cystic carcinoma (solid variant), adenosquamous carcinoma, basal cell adenocarcinoma, salivary duct carcinoma and neuroendocrine carcinoma.

CASE REPORT

A 60 years old male patient presented to General Surgery department with swelling in the right Parotid region from last three years. The swelling was soft to firm in consistency. Fine Needle Aspiration Cytology (FNAC) was done using 10 cc syringe and aspirated hemorrhagic material. On cytology differential diagnosis was made as basal cell adenoma or low grade muco epidermoid carcinoma. Surgery was done and the specimen was sent for histopathological examination. Grossly we received parotid of size 5x3cm in size, firm in consistency. Cut section was grey white

in colour. Multiple serial sections were taken and submitted. On microscopy sections show basaloid areas along with altered nuclear cytoplasmic ratio with squamous areas showing squamous cells along with keratin pearl formation with abundant eosinophilic cytoplasm and it was diagnosed as Basaloid squamous cell carcinoma.

DISCUSSION

The worldwide annual incidence of salivary gland tumours ranges from 0.4 to 13.5 cases per one lakh people. In general, salivary gland tumours are most common in older adults and females and more commonly affected than males, except for Warthin tumour and high grade carcinomas. Primary carcinomas of the salivary glands are uncommon, accounting for less than 0.3% of all cancers. The sites of occurrence with respect to the number of cases in descending order are; parotid gland, submandibular gland, palate, cheek and tongue. Among the salivary gland carcinomas, the commonest histologic types in descending order are; mucoepidermoid carcinoma, adenoid cystic carcinoma, adenocarcinoma not otherwise specified.

The age of presentation of malignant tumours is similar to, or slightly older than, that of benign tumours. Most salivary gland tumours are not clinically distinguishable from benign ones, except when they show rapid increase in size, pain, fixation to adjacent structures, ulceration or cervical lymph node enlargement. Facial nerve paralysis is a more consistent sign of malignancy, more often seen in high grade tumours [3]. Here we present a case of BSCC which is a rare presentation in salivary glands.

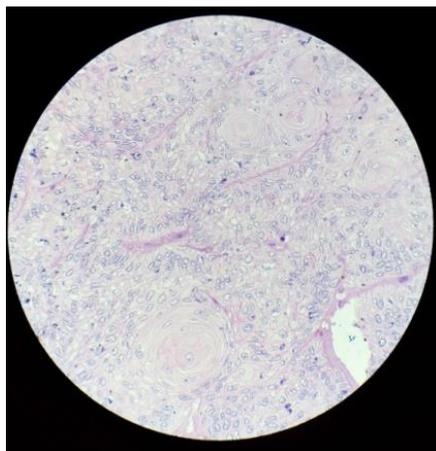


Fig-1: Showing basaloid arrangement of cells with palisading and with squamous cells along with keratin pearls. [H&E,x 40]

The World Health Organization defines BSCC as an aggressive and rapidly growing variant of SCC with a propensity for local and distant metastasis. The clinical features of BSCC are similar to conventional SCC; therefore, it becomes very difficult to distinguish it from SCC. Therefore, its diagnosis depends mainly on the histopathologic and immunohistochemical features.

Basal cell carcinoma is distinguished by uniform-appearing tumor cells with scanty cytoplasm and large hyperchromatic oval nuclei showing peripheral palisading. Mucin is present in the surrounding stroma, with cleft artifact occurring between tumor nests and surrounding stroma. Basaloid Squamous cell carcinoma is a variant of Squamous cell carcinoma that has relatively recently been described and delineated as a distinct clinicopathologic entity.⁴ It has been reported in the hypopharynx, larynx and oral cavity of middle aged to elderly patients. Its recognition is significant in that it is a high grade aggressive neoplasm with a poor prognosis. Analogous tumours have been reported in the esophagus and uterine cervix. More recently, basaloid squamous cell carcinoma of the esophagus has been recognised as an entity [3].

BSCC in the oral cavity show basaloid areas with demarcated nests of cells with peripheral palisading, basal cell morphology and numerous mitotic figures. Comedo necrosis is common. These tumours are typically aggressive with early lymph node metastasis. They are most typically seen in the posterior aspect or base of the tongue and must be distinguished from other basaloid lesions.

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