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Basaloid squamous cell carcinoma of maxillary sinus – A rare case report

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Introduction

Basaloid squamous carcinoma is first identified as a separate histopathological entity by wain et al (1986), a rare and an aggressive variant of OSCC.[1] In 2005 classification, WHO defined it as a variant of SCC, with basaloid and squamous components in varying pro portions.[2] I t is believed to be a poor prognosis because of its increased propensity for metastasis.[3] His to pathologically , BSCC is the presence of solid epithelial nests showing basaloid features with malignant features, infiltrating tumour shows variety of patterns such as solid lobular, cribriform, cords, trabeculae, nest and glands or cysts.[4] Its dimorphic pattern is characteristic of basal cells components associated with squamous com ponents. Here, we report a case of BSCC of maxillary sinus.

Keywords: SSC, BSCC, Pathology,

Case report

A 30-year-old Female came to the department of Oral Pathology with the chief complaint of Swelling in upper

right back region since 2-3 months. Patient was moderately built and nourished, conscious, cooperative, well oriented with time, place and as a person. Extra orally, the swelling was 2x3 cm in size, ovoid in shape and was seen extending from upper canthus of eye to mid of ala tragus line. Superior-inferiorly, it extended from inferior orbital margin up to 1cm above the line joining the angle of the mouth to tragus. Nasolabial fold was obliterated. Intraorally a solitary circumscribed ovoid swelling was seen measuring 3 x 4 cm in dimension extending from upper right first premolar up to second molar. Vestibular obliteration was present with no palatal extension. On palpation, the swelling was firm, non-tender and fixed. Mucosa overlying the swelling was erythematous and stretched The patient also reported with a history dull pain, epistaxis and heaviness on bending head. Lymph nodes (submandibular and upper and middle cervical) were palpable, hard and fixed. There was no significant past medical, dental and family history. Complete blood hemogram was normal.

On Radio graphic examination, Ill-defined radio fluency was present measuring 3 X1.5 cm in dimension extending from root apex of 15 up to mesial root apex of 17 superiorly extend cannot be appreciated.

A Computerized Tomography (CT scan) of Para nasal sinus showed a large Sino nasal mass measuring 4.4cm x 3.4cm x 5.9cm involving maxillary, NOE complex and the frontal sinus. Expansion and dehiscence of the anterolateral wall, focal dehiscence of the poster lateral wall and erosion of the maxillary alveolar process in the premolar-molar region was seen. PA Chest X ray was also done to rule out any metastasis.

Provisional diagnosis was made of malignancy involving the right maxillary sinus.

Incisional Bio psy was done under local anaesthesia, sample was received and grossing was done.

Multiple greyish white coloured tissues measuring 0.9 X 0.7, 0.3 x 0.3, 0.2 x 0.1, 0.1 x 0.1, 0.4 x 0.3 cm, firm in texture with irregular surfaces.

Hematoxylin and eosin-stained section showed tumour cells proliferating in the form of nests, tubules, sheets and interconnecting strands throughout the stroma. Keratin pearl formation in few areas was seen. Peripheral palisading pattern was seen. Come do necrosis was present within the tumor islands. Numerous multinucleated tumour giant cells were seen. Few areas showing eosinophilic material can be seen intermixed with the tumour islands. Histopathologic ally differential diagnosis was made of Basaloid squamous cell carcinoma, Adeno squamous carcinoma. Pas stain was performed on the same section which was negative. Ck 8 and ck 18 was done and s100 was done. Then final diagnosis of BSCC of right maxillary sinus was made.

Discussion

BSCC has been defined in the 2005 WHO book as an aggressive high-grade variant of squamous cell carcinoma composed of both basaloid and squamous com ponents. It appears in both the sexes but primarily affects men in the seventh decade of life. Clinically it is an aggressive tumour with high rates of nodal (64%) and distant metastasis (44%). Soriano et al found a 6 times higher risk of distant metastasis compared to usual type of SCC. BSCC can be misdiagnosed as adenoid cystic carcinoma, adeno squamous carcinoma, salivary duct carcinoma, small cell undifferentiated carcinoma and polymorphous low-grade adeno carcinoma. In the present case diagnosis of BSCC was established due to the prevalence of a basaloid cellular component and based particularly on the remarkable basaloid pattern in intimate association with a SCC, as described in some

reports. It showed the his to logical features which matched the observations made by Wain et al for differentiating BSCC from other tumours. The positivity detected for high molecular weight cytokeratins namely CK8 and CK18 and the negativity for S-100 shown in this case demonstrates the predominance of epithelial phenotype without any differentiation towards glandular tissue which confirmed the tumour to be of squamous origin. Also the presence of PAS and S-100 negativity in the present case resolves the dilemma of adeno squamous carcinoma.

A study showed highest expression of cks 8 and 18 in high-grade tumours and in tumour with a basaloid phenotype. Studies also have reported that BSCC and conventional SCC do not show any reactivity for S-100 protein.

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Legend Figures

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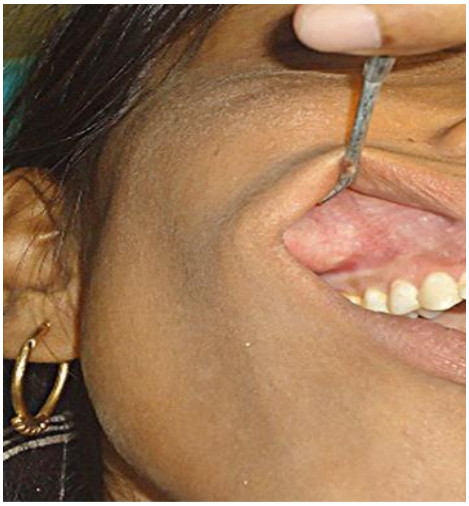

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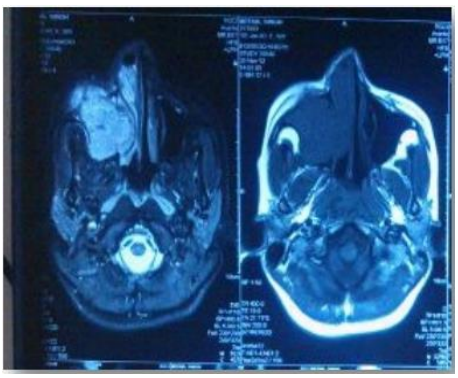

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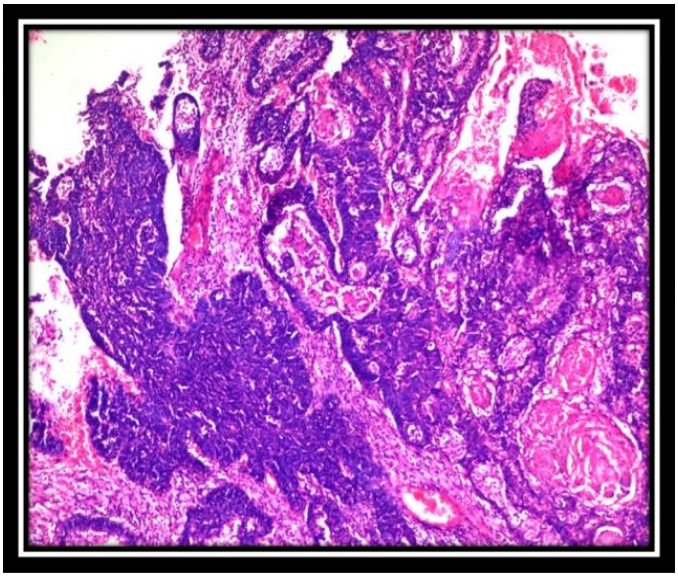
Figure 6:

Figure 7:



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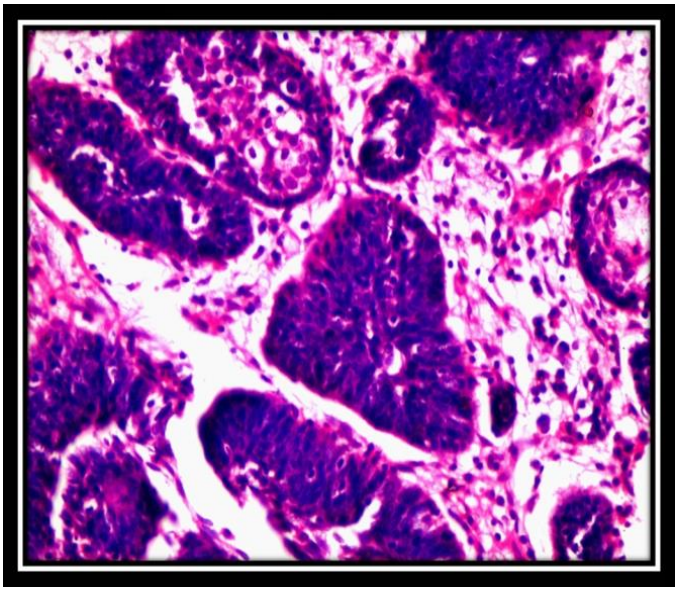

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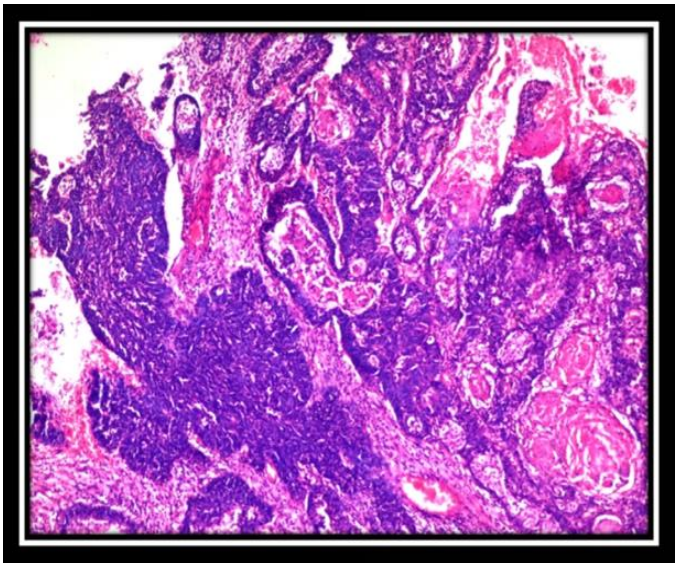

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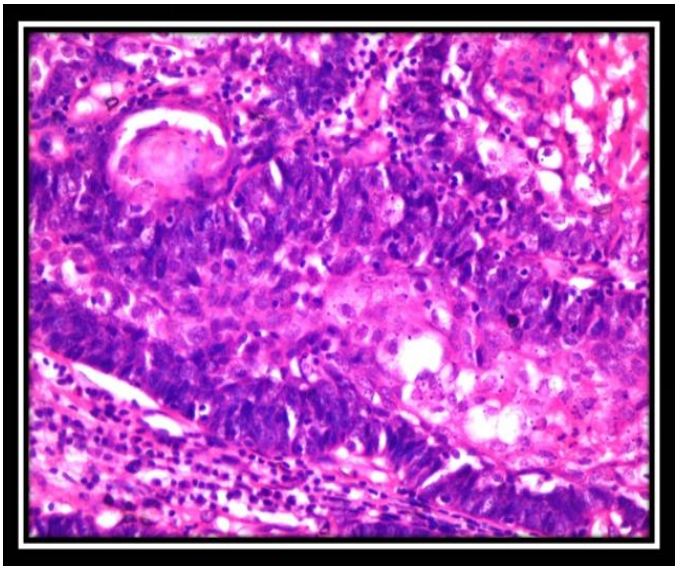

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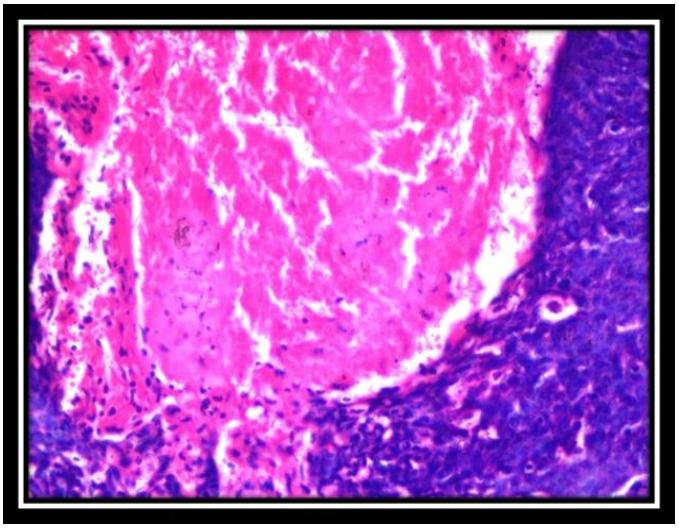

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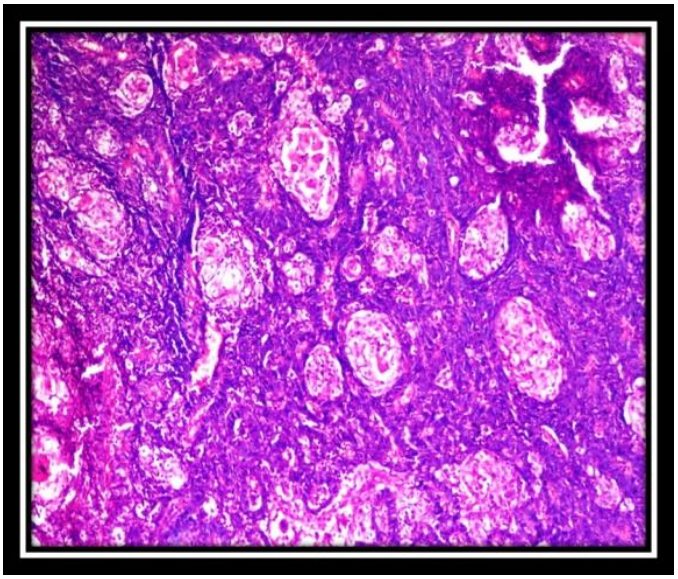

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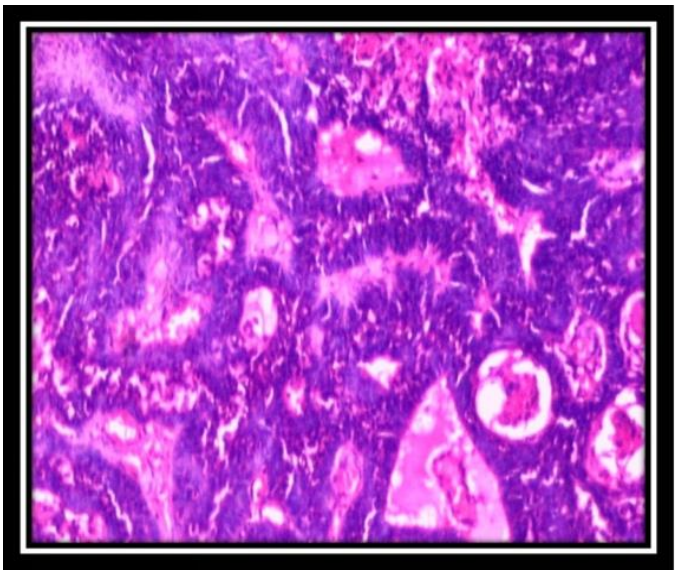

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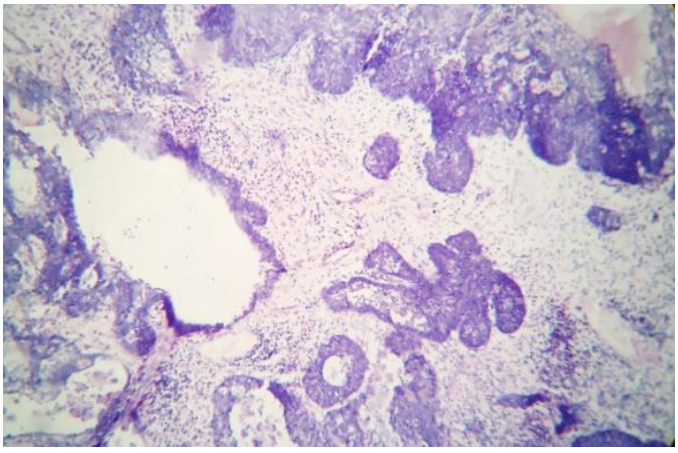
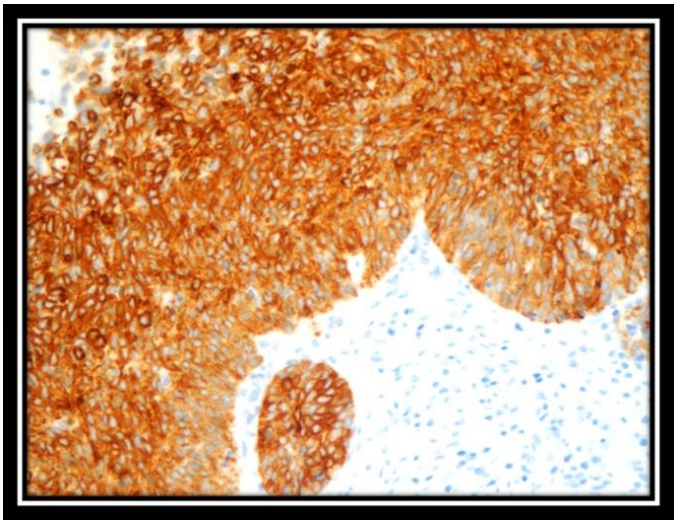


Figure 15:

pas

Ck-18



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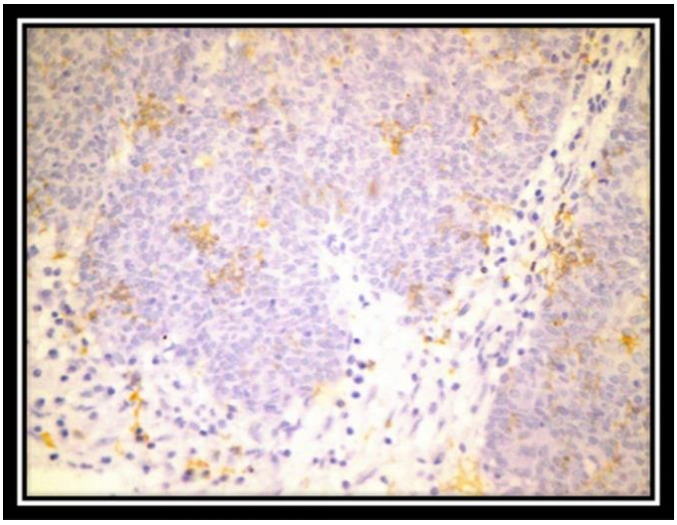

Figure 17:

s-100