

Research Journal of Pharmaceutical, Biological and Chemical Sciences

Imaging Features of Squamous Cell Carcinoma of Left Maxillary Region.

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ABSTRACT

Malignant tumors of the nasal cavity and paranasal sinuses are rare, with poorly differentiated squamous cell carcinoma of the maxillary sinus being the most common. The aim of this study is to report a carcinoma affecting the maxillary sinus of an adult, with diagnosis being achieved with an intra – oral biopsy, after the lesion had perforated the palate.

Keywords: Maxillary sinus carcinoma, paranasal sinus carcinoma, Malignant neoplasm.

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INTRODUCTION

Malignant tumors of the nasal cavity and paranasal sinuses are rare, comprising less than 1% of all malignancies with poorly differentiated squamous cell carcinoma of the maxillary sinus being the most common [1 and 2].

This disease mainly affects men in their sixth or seventh decade of life. Most lesions remain asymptomatic or mimic sinusitis for long periods while the tumor grows to fill the sinus. Hence, diagnosis may not be made until the lesion had perforated through the surrounding bone, and most patients are diagnosed with advanced disease. [2 and 4] while optimal treatment patterns, including radiation therapy, conservative surgery and chemotherapy are still under debate, the prognosis remains poor [2].

The aim of this study is to report a carcinoma affecting the maxillary sinus in an adult, with diagnosis being achieved with an intra-oral biopsy, after the lesion had perforated the palate.

Case report

A 70 year old female came with complaints of pain and swelling of left maxillary region that had appeared following extraction of the left second and third lower molar teeth 20 days back. During the examination, facial asymmetry and painful swelling were noted in the left maxillary sinus region and the cervical and submandibular nodes were palpable (Fig 1A) upon intra oral examination a soft, tumor mass was observed in the left upper molar region. Computed tomography plain and contrast study revealed large heterogeneously enhancing mass lesion measuring ~3.1x 2.6 x 3.6cm arising from alveolar margin of the left half of maxilla with destruction of adjacent anterior aspect of left half of hard palate and the floor of left maxillary sinus. (Fig 1 d). The lesion was seen extending medially into the gingivitis labial sulcus abutting the lateral margin of tongue; laterally into the adjacent muscles and superiorly into the left maxillary sinus floor of left nasal cavity and left maxillary sinus, the soft tissue density was seen nearly filling the entire left maxillary sinus (Fig 1 b).

In addition there was enlarged nodes in both submandibular region, left upper deep cervical region and multiple small sub centimeter nodes in bilateral posterior triangle

DISCUSSION

Malignant neoplasms arising from the paranasal sinuses are rare, and even institutions with a referral practice for head and neck cancer need many years to accumulate enough patients [5]. This case presented clinical, imaging and histological features of squamous cell carcinoma of the maxillary region.

The disease has predilection for males (males /females ratio 2.3 : 1), with age ranging range 38- 89 years (mean 64 years) [3]. Patients usually are diagnosed with advanced disease, with as much as 90% of the patients presenting T3/T4 stage [5]. However ,lymph regional metastasis are not frequently found ,with incidence ranging from 3.3% to 26%.5 Our patient presented with most common features of maxillary region carcinoma.

The most common symptoms are pain (59%) followed by oral symptoms (40%), and facial swelling (38%). nasal obstruction (35%) and epistaxis (25%) May also be seen [3]. Although our patient showed facial swelling and also complained of pain, the precise diagnosis was not obtained until an oral swelling had appeared following tooth extraction.

The optimum management of carcinoma arising in the maxillary sinus remains undefined. Therapeutic approaches include surgery, radiation and systemic and tropical chemotherapy in a variety of combinations and sequences [3]. Maxillary sinus malignancies have poor prognosis, with the five year cause specific survival rate being 43% and overall survival of 52 months [2 and3]. Advanced T stage, regional and distant metastasis are highly predictive if poor diagnosis [5].

CONCLUSION

The importance of early diagnosis of maxillary region carcinoma, in order to increase chances of survival and to reduce morbidity.



Fig 1A

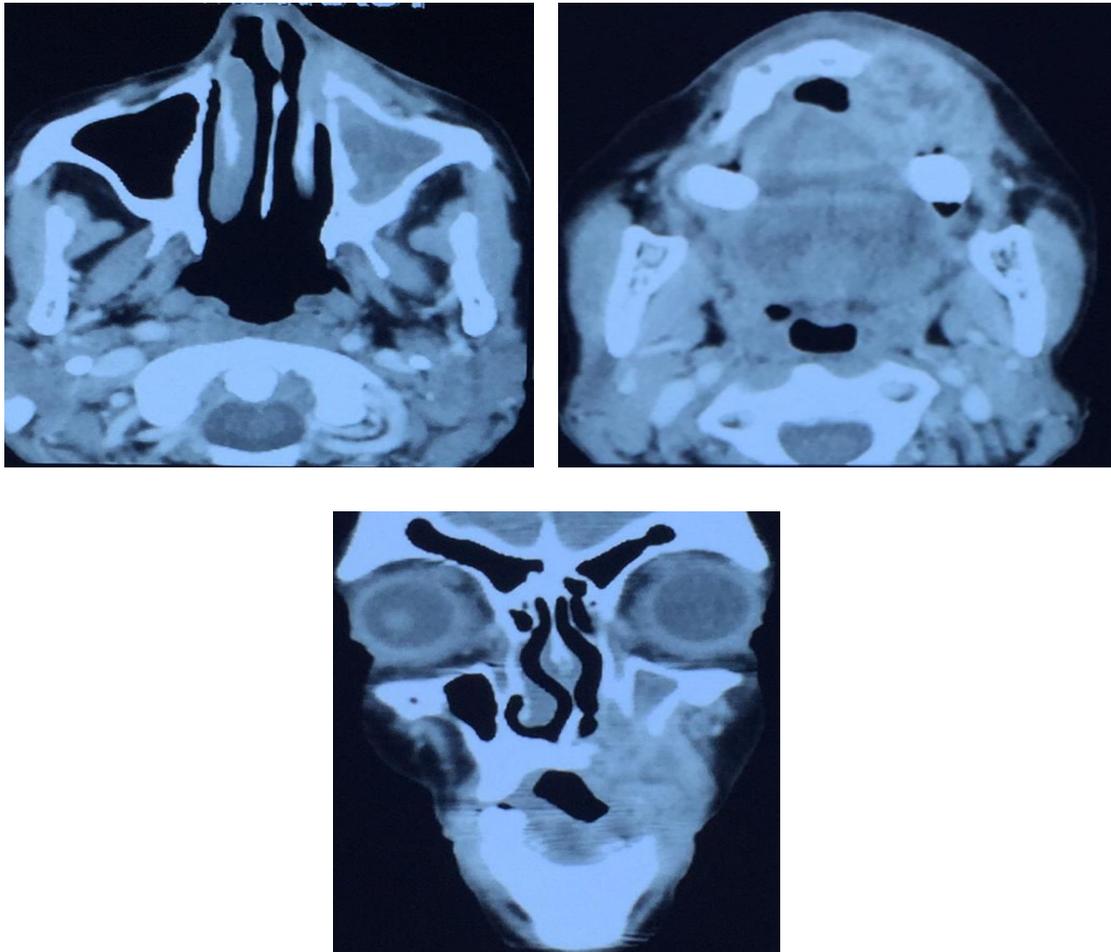


Figure: 1b ,1c and 1d

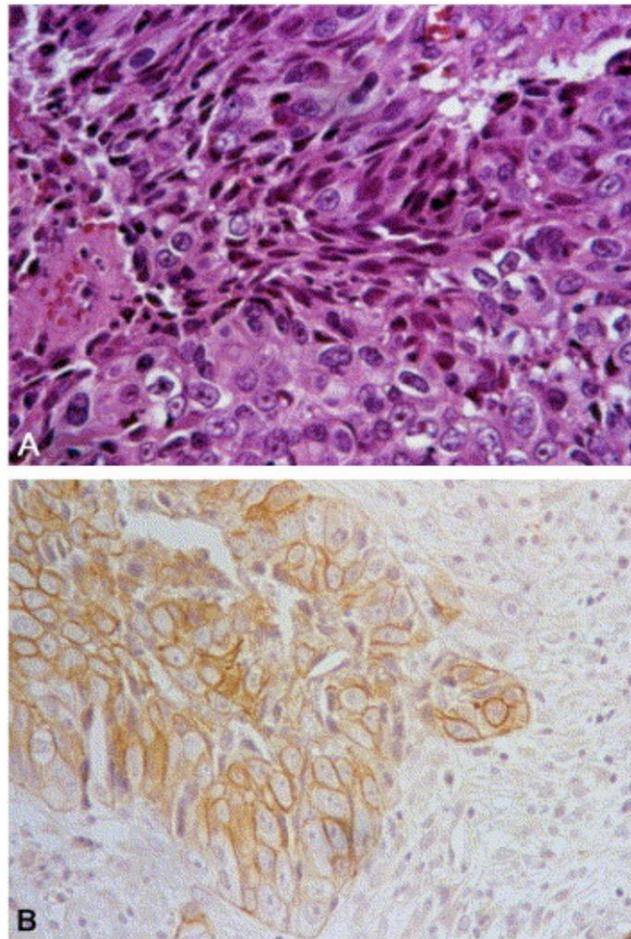


Figure: 2 A and B

In view of the clinical and imaging findings, a maxillary sinus neoplasm was diagnosed and the patient was submitted to an incisional biopsy, and the histological examination revealed a solid tumor like mass invading adjacent bone structures composed by spindle and round epithelial cells presenting malignant characteristics (Fig 2 A and B) Biopsy revealed squamous cell carcinoma.

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