A Rare Case of Nasal Mass Presenting as Malignant Round Cell Tumour

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Abstract
Malignant round cell tumour includes a group of neoplasm characterized by cells that are small, round and relatively undifferentiated. MSRCT of PNS is relatively uncommon and presents with nasal discharge, polyp, mouth breathing, snoring, headache. Detailed clinical history as well as radiological imaging specially CT is essential, the diagnosis is made by biopsy and IHC studies. Treatment modalities include chemotherapy, radiotherapy or both are initiated as soon as the diagnosis is made, keeping in view the poor progression and aggressive nature of MSRCT.

Introduction
Malignant round cell tumour is a term used for tumours composed of malignant round cells that are slightly larger or double the size of red blood cells in air dried smears¹. This group of neoplasm is characterized by small, round relatively undifferentiated cells. Differential diagnosis of small round cells is particularly difficult due to their undifferentiated or primitive character. In several study reports, fine needle aspiration cytology has become an important modality in diagnosis of these tumours²³.

Case
A 40 yrs old male presenting at department of E.N.T. Gajra Raja Medical College and J.A. group of Hospitals Complaining of:

Discharge from left nasal cavity since 8 to 9 months.
Left sided nasal obstruction since 8 months.
History of:
- Mouth breathing.
- Snoring
- Facial pain
- Headache

Examination
Nose
Right deviated nasal septum.
Discharge in left nasal cavity
A pale polypoidal mass present in left nasal cavity posteriorly.
Mouth and Throat
Bulging of soft palate seen and uvula pushed to right side.

Posterior Rhinoscopy
Shows a pale mass seen filling the nasopharynx.

Investigations
Blood Routine: Normal
CECT PNS:
Ill defined heterogeneously enhancing mass lesion in left maxillary sinus causing bony obstructions of the walls of maxillary sinus. Infiltrating to adjacent structures, causing bony destruction of surrounding bones. (neoplastic mass of left maxillary sinus)

Histopathology
Gross Examination
Multiple greyish white to greyish brown irregular tissues measuring about 2cm * 2cm.

Microscopic Examination
Diffusely arranged cells showing pseudofollicles, small to intermediate cells showing cleaved nuclei and inconspicuous nucleoli scant amount of few mitosis are also seen with prominent vasculature.

Impression
Malignant round cell tumour
Treatment
Excision of Mass with oral or Nasal Route.

Discussion
Nasal mass malignancy is uncommon, out of which most common type is squamous cell carcinoma. Nasal cavity and PNS as the site of malignant round cell tumour is extremely uncommon.
Tumours that show good differentiation are easy to diagnose but identification of diagnostic, morphological features are difficult when a tumour is poorly differentiated, therefore, no definitive diagnosis is possible\(^{(4)}\).
The role of CT imaging is very important to localise the disease and see for extent of disease. A biopsy is mainstay for diagnosis, which leads to HPE diagnosis. Immunohistochemistry also has a major role in the exact configuration of MSRCT.
The treatment protocol of MSRCT is not yet established. Combined treatment (surgery, chemotherapy and radiotherapy) is currently applied, although prognosis remains poor.

Reference