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The clinical and histopathological assessment of nasal mass amongst patients in ear, nose, and throat

Shankar Marshal Toppo

Assistant Professor, Department of pathology RSDKS GMC Ambikapur

Vikas Gupta

MD, IDCCM, EDIC1. Critical Care Physician, Aureus Hospital, Nagpur

Rahul Gulati

Prof & HOD Department of medicine, Shri shankaracharya institute of medical sciences, junwani Bhilai District Durg CG.

Pravin G. Dhone*

Professor & Head, Department of Pharmacology, RSDKS GMC, Ambikapur

*Corresponding author

Abstract---The nose of the prominent feature of the face and often catches the attention of the face and often catches the attention on the looker whenever it is deformed or altered in shape. Nose is not only important functionally, but automatically and aesthetically as well as. What is pleasing and what is pleasing and what is beautiful is difficult to answer and depends upon the emotional reaction of the be holder. The observations are made from the study of 130 patients with mass in nose attending E.N.T. Department of V.S.S. Medical College Hospital, Burla from September 2009 to August 2011. Out of total number of 20,215 patients attending E.N.T. OPD 459. 130 cases of mass in nose, attending the ENT OPD, VSS Medical College Hospital, Burla from September 2009 to August 2011 were taken for study, which comprised 0.64% of total patients of that period. Rhinosporidiosis was found to the most common lesion (34.61%) among them followed by AC polyp (16.92%) & Ethmoidal polyp (13.84%). Hemangioma constitute 7.71% of cases, Sq cell papilloma 4.6°/o inverted papilloma 2.3%, nasopharyngeal angiofibroma 2.2%.

Keywords---*Rhinosporidiosis, Hemangioma, Nasopharyngeal, Angiofibroma*

Introduction

The nose of the prominent feature of the face and often catches the attention of the face and often catches the attention on the looker whenever it is deformed or altered in shape.[1] Nose is not only important functionally, but automatically and aesthetically as well as. What is pleasing and what is pleasing and what is beautiful is difficult to answer and depends upon the emotional reaction of the holder.[2,3]

In animals, the primary function of nose is olfaction.[5] In human beings, the olfactory sense is much less and the respiratory function appears to be important, nevertheless olfaction helps us to appreciate the flavor of food and fragrance of flowers.[6,7] A person with blocked nose cannot enjoy a sumptuous dish nor realize the sweet smell of rose.[8]

Frequently, patients attend E.N.T. clinic with complaints of nasal obstruction, nasal discharge, nasal bleeding, anosmia etc.[9,10] In many cases this may be due to a mass in nose.[11] The mass may be an inflammatory swelling, a benign tumor, or a malignant growth, therefore proper appreciation of the pathology is essential to guide the correct medical or surgical intervention.[12]

Method

Materials and Methods

The present work comprises of clinical and histopathological assessment of mass in nose, amongst patients attending the Ear, Nose, and Throat out-door department of the V.S.S. Medical College Hospital, Burla during the period December 2009 to August 2011. Patients with a definite mass in nose are admitted to the E.N.T. ward for a thorough clinical study which includes detailed history, routine and special investigations and histopathological assessment of the lesion.

These cases are investigated under the following proforma.

A. Proforma

1. Name, Age, Sex
2. Address
3. Religion
4. Registration Number
5. Occupation
6. Social Status
7. Chief complaints duration
 - a. Persistent progressive nasal congestion and stuffiness.
 - b. One side or both side nasal blockage.
 - c. Nasal drainage in the back of the nose and throat.
 - d. Nose Bleeds.
 - e. Pus draining from the nose.
 - f. Decreased sense of smell.

- g. Numbness or pain in part of the face.
 - h. Lessening or numbness of the teeth.
 - i. Growth or mass in the face, nose or palate.
 - j. Persistent tearing of the eyes.
 - k. Building of one of the eyes and/or visual loss.
 - l. Pain or pressure in one of the ears.
 - m. Difficulty opening the mouth.
 - n. Lymph node enlargement in the neck areas.
8. History of present illness.
 9. Past history.
 10. Family history.
 11. Personal history

B. Social History: Environment, nature of work, hygienic conditions at home and bathing habits etc. Habits as regards food, alcohol and tobacco.

Otorhinolaryngological examination.

- Nose, paranasal air sinuses and nasopharynx.
- External nose.
 1. Inspection
 2. Palpation
- Examination of vestibule
- Anterior rhinoscopy.

Anterior aspect of nasal cavities is examined by Thudicum's nasal speculum in following order. Lateral wall, Medial wall (septum), Floor and Roof

- Posterior rhinoscopy Examination of nasopharynx and posterior nasal aperture is carried out with the aid of a postnasal mirror.
- Digital palpation of nasopharynx
- Diagnostic Nasal Endoscopy (with 0, 30° and 70° endoscope)
- Description of space occupying lesion in nose:

Site	Number
Size	Shape
Surface	Color
Translucency	Consistency
Tenderness	Fluctuation
Reducibility	
Bleeding on touch on manipulation	

A probe is used in the nose after a through spraying with decongestant nasal drop to see the exact site of origin of the swelling. Examination of throat and ear.

- General Examination: Anemia, jaundice, glandular enlargement, blood pressure, pulse, respiration.

Systemic Examination:

- Gastro-intestinal system.
- Cardiovascular system.
- Respiratory system
- Nervous system
- Imaging Test: X-rays of the nose & paranasal sinuses: These x-rays images may tell if the sinuses are not filled by air as they should be. This would suggest that something is wrong, although it may not be a tumor. Most of the time, an abnormal sinus x-ray means there is an Infection. If treatment of infection doesn't work, then other more specialized x-ray tests may be done.
- Computed Tomography (CT): (Coronal/Axial) - CT scans(from anterior naressphenoid and from brain up to skull base) are very helpful in identifying nasal cavity and paranasal sinus cancers. The CT scan uses a rotating x-ray beam to create a series of pictures of the body from many angles. A computer processes the information provided by the scan, producing a detailed image of a selected part of dye injected.

The Ct Scan may reveal

- 1) Tumors within the nasal cavity, paranasal sinuses.
- 2) Anatomical variants.
- 3) Vital landmarks.
- 4) Status of osteo- meatal complex.
- 5) Any bony involvement
- 6) Abnormally enlarged lymph nodes.

Magnetic resonance imaging (**MRI**): Like computed tomography, MRI displays a cross-section of the body. However, MRI uses powerful magnetic fields instead of x rays. The procedure can present cross-sectional views from several angles. These images can show abnormal as in the nose and sinuses or lymph nodes that may be cancerous.

Chest X-ray : This test may be done to determine whether nasal cavity or paranasal sinus cancer has spread to the lungs .

Pathological investigations:

- Differential count
- Total leucocyte count
- Estimation of hemoglobin percent.
- Bleeding time and clotting time.
- Erythrocyte sedimentation rate.
- Blood VDRL
- FNAC
- Biopsy (Excisional /representative) for histopathological examination

Aim of the present work is to evaluate and assess the space occupying lesions in the nose after a thorough routine clinical examination of nose along with histopathological study.

Results and Observation

The observations are made from the study of 130 patients with mass in nose attending E.N.T. Department of V.S.S. Medical College Hospital, Burla from September 2009 to August 2011. Out of total number of 20,215 patients attending E.N.T. OPD 459 cases were nasal masses, of which 130 cases were followed up and taken for study.

Table-3.1
Total Number of OPD cases and cases of Nasal Mass

Period	Total No. of cases attending E.N.T. OPD	cases with Nasal mass	
		Number	Percentage (%)
Sept' 2009 to Aug' 2011	20,215	130	0.64

From table No. I it is observed that 0.64 of total attendance in the out-patient department presenting with nasal mass were taken into study.

Table - 3.2
Total Number of Nasal Mass

Types of Nasal Mass		No. of Cases	Percentage
1. Non-neoplastic		94	73
2. Neoplastic	Benign	28	21.53
	Malignant	8	5.38

From table No. II 94 cases (73%) are non-neoplastic, benign tumors are 28 cases (21.53%) and malignant tumors are 8 cases (5.38%). So, it is evident that non-neoplastic ds. of nose & PNS are more common than

malignant ds. This is in accordance with the study by Lewis (1972), which states that malignancy of nose & PNS are very rare. It comprises only 2% of cancer of human body. WEIMERF & BATSAKISg (1978) also mention that cancer of nasal cavity & PNS occurs only in 1% of all cancers. So, our study is comparable with those studies.



Fig no 3.1 :- Nasal mass

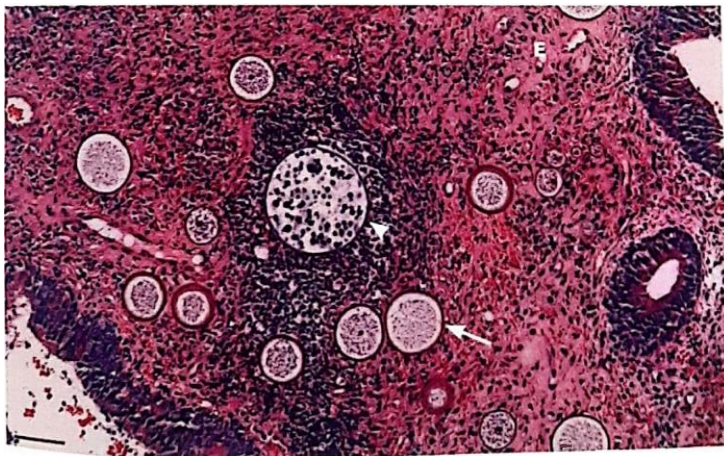
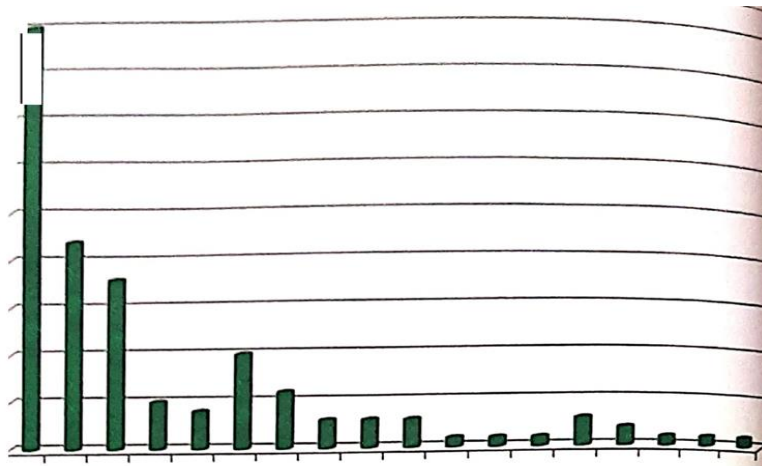
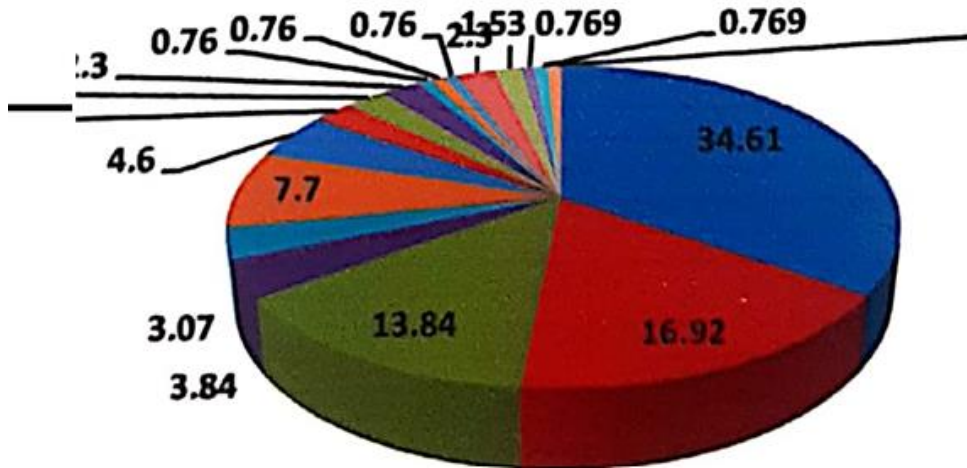


Fig no 3.2 Nasal mass



A case of Rhin- nosporeidiosis with histopathology showing different stages of development

1. Rhinosporidiosis,
2. Antrochoanal Polyp,
3. Ethmoidal Polyp,
4. Cyst
5. Fungal granul
6. Hemangioma,
7. Squamous Cell Papilloma,
8. Fibroma, 9. Angiofibroma,
9. Inverted papilloma,
10. Neurofibroma,
11. Ossifying fibroma of maxilla,
12. Pleomorphic adenoma,
13. Sq. Cell C.A. maxilla,
14. Sq. cell CA Nose,
15. Sq. cell CA Nose
16. Sq. cell CA Ethmoid, 17. Adenoid cystic CA maxilla, 18. Adeno carcinoma maxillary sin



Rhinospordiosis,	Antrochoanal Polyp
Ethmoidal polyp	Cyst
Fungal granuloma	Hemangioma
Squamous Cell papilloma	Fibroma
Angiofibroma	Inverted Papilloma
Pleomorphic adenoma	Oalfying flabroma of maxilla
Sq. Cell CA NON	Sq Cell C.A. maxilla
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	Adeno carcinoma maxillary nil

Conclusion

130 cases of mass in nose, attending the ENT OPD, VSS Medical College Hospital, Burla from September 2009 to August 2011 were taken for study, which comprised 0.64% of total patients of that period. Rhinospordiosis was found to be the most commonlesion (34.61%) among them followed by AC polyp (16.92%) & Ethmoidal polyp (13.84%). Hemangioma constitute 7.71% of cases, Sq cell papilloma 4.6°/o inverted papilloma 2.3%, nasopharyngeal angiofibroma 2.2%.

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