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## **Observation of various symptoms of neoplastic Nasal mass in ENT**

**Usha Armo**

Assistant Professor, Department of ENT, RSDKS GMC Ambikapur

**Sanjay Singh**

Associate professor, Department of Medicine, RSDKS GMC Ambikapur

**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**--Nasal polyp of inflammatory masses is also very common but all the same, one has to rule out the possibility of a neoplastic growth. The present work is undertaken with a view to evaluate the etiology, correlate histological findings with clinical manifestations and an attempt has been made to diagnose the tumours early to assist in planning management. In this observation, 55.5 %cases of rhinosporidiosis had attachment in lateral wall and 15.5. Rhinosporidiosis attached to the lateral wall only in 22.5% of cases and to the floor in 41.9% of cases. If the above two sites are taken together, both the studies, present one and that of Das (1974) have almost the same finding. It is difficult to determine the attachment when the growth is big.

**Keywords**--*Rhinosporidiosis, Neoplastic, ENT*

**Introduction**

Rhinosporidiosis, an ailment commonly found in India, Sri Lanka and South Africa; is still baffling the doctor because of its recurrence. Odisha is an endemic region for rhinosporidiosis more so in the western part of Odisha. [1,2] Nasal polyp of inflammatory masses is also very common but all the same, one has to rule out the possibility of a neoplastic growth. [3,4] The present work is undertaken with a view to evaluate the etiology, correlate histological [5] findings with clinical

manifestations and an attempt has been made to diagnose the tumours early to assist in planning management.[6,7

## **Method**

### Material 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. Examination of throat and ear.

1. General Examination: Anemia, jaundice, glandular enlargement, blood pressure, pulse, respiration
2. Systemic Examination:
  - I. Gastro-intestinal system.
  - II. Cardiovascular system.
  - III. Respiratory system
  - IV. Nervous system
3. 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
4. Computed Tomography (CT): (Coronal/Axial) - CT scans (from anterior nares sphenoid 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.
5. 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 areas in the nose and sinuses or lymph nodes that may be cancerous.
6. Chest X-ray : This test may be done to determine whether nasal cavity or paranasal sinus cancer has spread to the lungs.

The 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.

#### Observation and Results

Table -I  
Symptoms of Non-neoplastic mass

Si.No.	Type of mass	Nasal observation		Epistaxis	Sneezing	Headache	Anosmia	Pain
		U/L	B/L					
1	Rhinosporidiosis	40(88.8%)	10(22.2%)	38(84.8%)	10(22.2%)	8(17.7%)	4(8.8%)	
2	AC Polyp	22(100%)			11(50%)	10(45%)	2(9%)	
3	Ethmoidal Polyp	4(22.2%)	15(83.3%)		12(66.6%)	12(66.6%)	4(22.2%)	
4	Cyst	2(66%)						
5	Fungal Granuloma	4(100%)			3(75%)	1(25%)	1(25%)	

Table no. I shows that of the various types of nasal masses. 55% of cases presented with unilateral and 19.2% of cases with bilateral nasal obstruction. Out of the cases of rhinosporidiosis, 88.88% of cases presented with unilateral and 22.22% of cases with bilateral nasal obstruction. All the cases of antro-choanal polyp had unilateral nasal obstruction 83.3% of cases of ethmoidal polyp had bilateral obstruction 22.22% of ethmoidal polyp cases presented with unilateral nasal obstruction. In the present series 88.88% of cases of rhinosporidiosis had unilateral nasal obstruction which is almost same as Das (1974), But Iqbal and dani found nasal obstruction in 48.2% of cases of rhinosporidiosis. This might be due to the fact that in the present series all cases come to the hospital at a late stage when the growth is quite sizeable to cause nasal obstruction. All the Patients with nasal polyp had nasal obstruction. Such observation was also made

by miles (1971) Ballantyne (179) and Darakelee (1984). In this series (TABLE -I) epistaxis is found in 84.3% Cases of rhinosporidiosis. Headache is found in 66.6% cases of ethmoidal polyp and 45% cases of antrochoanal polyp. Sneezing is observed in 66.6% of ethmoidal polyp and in 22.22% cases of rhinosporidiosis and 20% Cases of antrochoanal polyp. In the present observation 84.3% of patients of rhinosporidiosis had epistaxis and this finding is same as that of allen and dave (1936) Satyanarayan (1960) Das (1974) however it does not corroborate with eqbal and danis's findings which may be due to their encounter with cases at early stage. Headache is found in 66.6% of cases of ethmoidal polyp and 50% cases of antrochoanal polyp, which is due to infection of the sinuses. Sneezing is present in 22.22% of cases of rhinosporidiosis 20% cases of antrochoanal polyp and 66.6% of ethmoidal polyp. In rhinosporidiosis such finding was recovered by satyanarayan (1971) and lee (1984). In the present series similar finding is also recorded.

Table - II  
Signs of Non-neoplastic nasal mass

Si. No.	Type of mass	Type of Discharge			Site of Origin				
		Mucoid	Mucopurulent	Sanguinous	Lateral Wall	Sepatum	Floor	Multiple	Others
1	RhinoSporidiosis		10(22.2%)	30(66%)	25(55.5%)	6(13.3%)	7(15.5%)	7(15.5%)	
2	AC Polyp	10(45.5%)	12(54.5%)		22(100%)				
3	Ethmoidal Polyp	12(66.6%)	8(44.4%)						8(100%)
4	Cyst				5(100%)				
5	Fungal Granuloma	1(25%)	2(50%)						4(100%)

From Table No. II , it is found that Sanguinous discharge is more common in Rhinosporidiosis, 66.6% cases. Mucoid discharge is common in ethmoidal polyp 55.5% of Cases.

In 66.6% of cases of Rhinosporidiosis there is sanguinous discharge rich coincide with the finding of allen and dave.

Mucopurulent nasal discharge is seen in 54.5% cases of Antrochoanal polyp. Drake lee (1984) stated that the nasal discharge may be purulent, mucopurulent or mucoid depending upon the complicating diseases of sinuses.

### 3.1 Description of Mass :-

#### 3.1.1 Size of the mass

Study of the size of the nasal masses showed more than half an inch in diameter in Rhinosporidiosis (78.5%) Antrochoanal polyp (62.6%) ethmoidal polyp (78.5%)

and malignancy of nose and paranasal sinuses (100%) late presentation is the case of such increased size of nasal mass.

### 3.1.2 Shape of the mass:

Attempts had been made to ascertain the shape of mass by inspection, probe or digital palpation and are recorded as either globular irregular or filliform. All the case of RhinoSporidiosis are found to be pedunculated and filliform shape. Malignant lesions are irregular in shape and polyps are globular mostly.

### 3.1.3 Surface of the mass:

The surface is granular in all the case of RhinoSporidiosis. The surface is smooth mostly in case of polyps haemangioma, fibroma and cyst. The surface is ulcerated in case of malignancy, papilloma and neurilemmoma.

### 3.1.4 Colour of the Mass:

A RhinoSporidiosis masses are pink or red in colour, where as polypi are grayish-white in colour Haemangioma are red coloured malignancy are having ulcerated surface with slough on it.

### 3.1.5 Consistency of mass:

Consistency of different nasal masses are confirmed by probing and categorized as soft, firm and hard. 110(84%) cases of the present series are having soft masses and 20 (16%) cases are having firm mass. All the cases of rhinosporidiosis are soft masses. Two of the antro-choanal polyps which are huge with extension to oropharynx are firm inconsistency. All the cases of malignancy, fibroma are firm in consistency

### 3.1.6 Mobility of Mass:

Mobility of the masses could be ascertained by probe in all except 5 cases due to huge size. 92 cases of nasal mass are mobile and 18 cases are fixed. All the polypi and most of the rhinosporidiosis cases are mobile.

From table No. II, most cases of rhinosporidiosis are attached to the lateral wall of the nasal cavity 55.5% and floor (15.5%) of the nasal cavity. All the cases of antro-choanal polyps studied were extensions from the maxillary antrum and the cases of ethmoidal polyps, from the ethmoids. Fungal granuloma arise from maxillary antrum.

## **Conclusion**

In this observation, 55.5% cases of rhinosporidiosis had attachment in lateral wall and 15.5%, cases had attachment to the floor. (1974) found rhinosporidiosis attached to the lateral wall only in 22.5% of cases and to the floor in 41.9% of cases. If the above two sites are taken together, both the

studies, present one and that of Das (1974) have almost the same finding. It is difficult to determine the attachment when the growth is big.

Out of 8 cases (6.15%) of malignant tumours, sq. cell carcinoma is the most common (66%), in which three cases (37.5%) were sq. cell carcinoma of maxillary sinus, 2 cases of sq. cell carcinoma of nose & 1 case of sq. cell carcinoma of ethmoid sinus.

Nasal masses are more common on 2<sup>nd</sup> decade (33.33%) followed by 3<sup>rd</sup> decade (26%). Malignancy of nose /PNS are found in 4-6<sup>th</sup> decade of life.

Nasal masses are more common in males (71%)

Rhinospodiosis was found to be more common in rural population & cultivators (40%).

Mucopurulent discharge was found to be presenting symptom in AC polyp (5.4%) & Sanguinous discharge was common in rhinospodiosis (66%).

Epistaxis was seen in 45% cases of nasal mass comprising of rhinospodiosis, hemangioma, naropharyngeal anjiofibroma, & malignant conditions. Headache as an associated symptom was seen in 28% case, mostly due to complication of sinusitis. History of sneezing was present in 30% cases comprising of nasal polyp & rhinospodiosis It is observed that most of the nasal masses take origin from the lateral wall of nose.

Surfaces of the nasal masses were mostly smooth, except for rhinospodiosis which is granular Histopathologic ally, of all 8 cases of malignant conditions of nose/PNS 75% case were Sq. cell carcinoma, adenoid cystic carcinoma & adenocarcinoma each being 12.5%. Rhinospodiosis, which is the most common nasal mass studied in the present series, is widely prevalent in Western Odisha and is quite notorious for recurrence. As for the malignant condition of nose & PNS are concerned, early detection remains the key. It requires the combined efforts of the surgeon, the radiologist & the pathologist for proper management. As most of these conditions have late presentation, all nasal masses should be examined thoroughly. However, health awareness among common people is of utmost importance for early diagnosis & management.

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