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CLINICOPATHOLOGICAL STUDY OF NASAL AND NASOPHARYNGEAL MASS

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ABSTRACT

This is a study of 540 selected cases of nasal and nasopharyngeal mass who attended Otorhinolaryngology OPD of M.K.C.G. MCH,Berhampur.

- Incidence of nasal and nasopharyngeal mass w.r.t. total number of OPD,ENT patient is 0.72%.
- 60.56%cases are histologically diagnosed as Rhinosporidiosis,27.78% as nasal polyp. Rhinosporidiosis is more prevalent because of pond bathing&rural habitat of population.
- Maximum patients beong to 3rddecade.
- Average male:female ratio is 1.47:1.
- Higher % of patients from rural area.
- Sinonasal polyp is more common than antro-choanal polyps.Nasal allergy is associated with polyposis,as suggested by presence of eosinophils in nasal smear.
- 20% fungal mass cases associated with AIDS,showed fulminant course.
- Neoplasms constitute about 5% of all cases.Few diseases are almost exclusively seen in males,e.g- angiofibroma.
- Bone erosion in CT scan is mostly associated with malignancy cases.
- Heterogeneous opacification in CT scan was seen among fungal mass cases

KEYWORDS :

INTRODUCTION

Nose is the most prominent feature of the face and often catches the attention of the observer whenever it is deformed or altered in shape. Nose is not only important functionally, but anatomically and aesthetically as well. What is pleasing and what is beautiful is difficult to answer and depends upon the emotional reaction of the beholder.

Since the day of Hippocrates, the father of medicine, nasal and nasopharyngeal masses have been known as common affliction of human being. The swelling of nasal cavity and nasopharynx have inflicted human being from time immemorial. Nasal and nasopharyngeal mass is a common finding in almost all age group of people. Most patients present with complaints of nasal obstruction, nasal discharge, epistaxis or disturbance of smell, proptosis, epiphora, diplopia, loose teeth, facial pain & swelling, buccal or palatal swelling. These masses can have various differential diagnoses. They can be congenital,inflammatory including allergic and infective, traumatic, granulomas or may be neoplastic (benign or malignant). Congenital masses are predominantly mid line swellings and include dermoids, glioma and encephaloceles as common diagnoses. The commonest nasal mass seen is polyp with a prevalence of 4% in general population. Rhinosporidiosis is also one of the most common nasal mass in our country.Angiofibroma is a benign but biologically aggressive tumour in adolescent male. Haemangioma may be found anywhere in the nasal cavity but commonly found on the anterior part of septum where they are called bleeding polypus of the septum.

A wide variety of tumours of different histological types are found in nasal cavity and nasopharynx. Benign tumours are not uncommon but malignant tumours are rare accounting for 0.2-0.8% of all malignancies (3% of head and neck tumours). Although the sinonasal tract and nasopharynx have identical appearing ciliated respiratory epithelium, the epithelium of sinonasal tract is ectodermally derived, while that of nasopharynx is endodermally derived. These structures may give rise to identical neoplasm that differ only in their location and resulting clinical symptomatology.The neoplasm deserving most attention is the olfactory neuroblastoma.

The diagnosis of malignant masses is challenging. Not only,they are rare, but also difficult to distinguish from their benign counterparts. The nasal cavity and nasopharynx are the site of origin of some of the more complex histologically diverse group of tumours of the entire human body. A detailed history, clinical examination and most importantly, thorough histopathological evaluation are essential part of workup of patients, so that a correct and timely intervention is done.

AIMS AND OBJECTIVES

- To categorize the mass lesions of Nose and Nasopharynx into neoplastic and non-neoplastic variants and to study their clinical and histological pattern.
- To compare their incidence and to know the incidence with respect to sex, lifestyle, habitat, age etc.
- To find the diseases that are more prevalent at this geographical region.
- To study the recurrence pattern of different diseases.
- To compare the results with available data.

MATERIALS AND METHODS

All patients with signs and symptoms like visible mass in nasal cavity, epistaxis, frequent nasal blockade, sneezing, rhinorrhoea, difficulty in breathing, fullness of nasal cavity, facial swelling, deformed nose, anosmia, nasal intonation of voice, obstruction of Eustachian tube, post nasal drip, aural and orbital symptoms, cervical lymphadenopathy are included in the study.

Inclusion Criteria

1. Patients willing to participate in the study.
2. Patients with definite nasal or nasopharyngeal mass.

Exclusion Criteria

1. Patients not willing to participate in the study.

Informed Consent

All subjects would sign the consent form, once they have understood the contents completely. It would be informed to the patient that he or she is free to withdraw from the trial at any moment with providing reasons to do so.

METHOD

The study was conducted in the department of Otorhinolaryngology, department of Pathology, department of Radiodiagnosis,M.K.C.G. medical college. After taking detail history a careful thorough clinical examination of nose and nasopharynx will be carried out for any mass lesion in nasal cavity or nasopharynx. Patients having definite mass are studied in detail by doing further radiological investigation, endoscopy, as well as cytological and histopathological examination.

OBSERVATION AND DISCUSSION

The present study was conducted in the department of E.N.T. M.K.C.G. Medical College & Hospital, Berhampur over a period of 2 years from 01.11.2014 to 31.10.2016 and the following observations were noted in the studying 540 selected cases of nasal and nasopharyngeal mass.

TABLE-I GENERAL INCIDENCE

Period of study	Total No of ENT OPD patients	Total Nasal and Nasopharyngeal mass cases	% of nasal and nasopharyngeal mass cases
01.11.2014 to 31.10.2016	75184	540	0.72%

The above table shows that the incidence of nasal and nasopharyngeal mass with respect to total number of OPD, ENT patient is 0.72%.

Drake Lee (1997) stated the true incidence of nasal and nasophary ngeal mass is difficult to assess, but may be inferred from incidence of asthma. It would be expected to be between 0.1 to 2% populations. However, the prevalence of this disease is estimated to be about 4% in general population (Bachert et al, 1999).

TABLE-II Distribution of different nasal & nasopharyngeal masses (n=540)

Name of the Mass	No. of Cases	Percentage(%)
Rhinosporidiosis	327	60.56
Nasal polyp	150	27.78
Bleeding polypus	06	1.11
Rhinoscleroma	04	0.74
Fungal mass	10	1.85
Nonspecific granuloma	08	1.48
Inverted papilomma	02	0.37
Squamous cell carcinoma	03	0.55
Adenoid cystic carcinoma	01	0.18
Malignant melanoma	03	0.55
Nasal dermoids	01	0.18
Adenoids	12	2.22
Angiofibroma	09	1.66
Nasopharyngeal carcinoma	04	0.74
Total	**540**	**100**

The above table shows that out of 540 cases presented with nasal and nasopharyngeal mass 327(60.56%) cases are histologically diagnosed as Rhinosporidiosis, 150(27.78%) as nasal polyp, 12(2.22%) as hypertrophied Adenoids. This indicates that Rhinosporidiosis is more prevalent in this geographical region because of frequent pond bathing and rural habitat of population.

TABLE-III Sex distribution of different nasal & nasopharyngeal masses (n=540)

Name of the Lesion	Male		Female		Total
	No.	%	No.	%	
Rhinosporidiosis	180	55.05	147	44.95	327
Nasal polyp	98	65.33	52	34.67	150
Bleeding polypus	4	66.67	2	33.33	06
Rhinoscleroma	3	75.00	1	25.00	04
Fungal mass	5	50.00	5	50.00	10
Non-specific granuloma	5	62.50	3	37.50	08
Inverted papilomma	1	50.00	1	50.00	02
Squamous cell carcinoma	2	66.67	1	33.33	03
Adenoid cystic carcinoma	1	100.00	0	0.00	01
Malignant melanoma	2	66.67	1	33.33	03
Nasal dermoids	1	100.00	0	0.00	01
Adenoids	7	58.33	5	41.67	12
Angiofibroma	9	100.00	0	0.00	09
Nasopharyngeal carcinoma	3	75.00	1	25.00	04
Total	**322**	**59.63**	**218**	**40.37**	**540**

Out of all patients presenting with Nasal and Nasopharyngeal mass 322 (59.63%) cases were male and 218(40.37%) were female. In all age groups, presenting with a nasal or nasopharyngeal mass, males were more affected than females. The average male to female ratio is found to be (322:218) 1.47:1, which agrees with observation of Molony(1977), Ballenger(1996) and Collins et al (2002). In this study, the percentage of males affected is found to be 65%, which closely resembles to that of Marcus et al (1957), Sirola(1966), Cook et al (1993) and Rugina et al (2002), who observed 58.06%, 57.5%, 70% and 63% male affection respectively.

Males are more exposed to outdoor activity than females in our society, hence possibly more exposed to pollutants, allergens and different risk factors.

However these results differ from that of Hardy (1957) and Dandapath et al (1993) who reported of female preponderance.

Malony (1977), Ballenger (1996), Collins et al (2002) reported a sex ratio of 2:1 in nasal polyposis. In our study of Nasal and nasopharyngeal mass diagnosed as polyp, male to female ratio is 98:52 = 1.88:1 which is similar to the aforementioned study.

Nonspecific granuloma, adenoids, fungal mass are almost having almost equal male and female predisposition which is nearly equal to 1:1.

TABLE-IV AgeDistribution of Nasal & Nasopharyngeal Masses (n=540)

Age in years	No of Cases	Percentage(%)
0-10	18	3.33
11-20	111	20.55
21-30	176	32.6
31-40	142	26.29
41-50	53	9.81
51-60	25	4.63
>60	15	2.78
Total	**540**	**100**

Youngest:6 year old male child with rhinosporidiosis

Oldest:64 year old male & female with Squamous cell carcinoma of nose and rhinosporidiosis respectively.

It is observed that maximum number of cases presenting with nasal or nasopharyngeal mass occurred in3rddecade (32.6%), followed by4th decade (26.29%). The youngest patient in this study was a 6 year old male child withnasal rhinosporidiosis and the oldest was a 64 year old male & female with Squamous cell carcinoma of Nose &Rhinosporidiosis respectively. 79.44%of cases belong to age group of 11 to 40 years.

This finding is comparable to that ofSirola (1966) who observed maximum number of cases between 21 to 30 years (31.2%) followed by 31 to 40 years(28%). Similarly, Dandapath et al (1993) observed maximum number of cases in 2nd and 3rd decade of life.

But the result differed from Marcus et al (1957) who observed maximum incidence between 36 to 45 years (36.6%) and Molony (1977) who observed maximum number of cases in the age group of 40-49 years.

TABLE-V Symptomatology of nasal and nasopharyngeal mass (n=540)

Chief Complaints	No of cases	Percentage (%)
Nasal obstruction	223	41.29
Sneezing	121	22.4
Running nose	204	37.77
Smell disorder	130	24.07
Post-nasal drip	207	38.33
Bleeding per nose	362	67.03
Fullness in nasal cavity.	179	33.14
Nasal intonation of voice	154	28.51
Facial pain/Headache	178	32.96
Throat irritation.	165	30.55
Aural symptoms.	19	3.51

Orbital symptoms	6	1.11
Dysphagia	4	0.74
External deformity	17	3.14
Cervical lymphadenopathy	10	1.85

The above table shows that the most common clinical presentation of cases with nasal and/or Nasopharyngeal mass is Blood stained Nasal discharge (67.03%) followed by nasal obstruction(41.29%), post nasal drip(38.33%), Running Nose (37.7%), and Fullness in nasal cavity(33.14%).This correlates with observations made by Murray (1988), Ballenger (1996), Drake Lee (1997) and Orvidas et al (2001). About 0.74% patients present with dysphagia, and 1.11% with orbital symptoms indicating those to be the one of the least common rare manifestation of Nasal and Nasopharyngeal mass.

Headache and facial pain is noted in 32.96% cases, which tallies closely with findings of Fahy& Jones (2001), who reported 29% of nasal mass cases had pain or pressure as symptom. This is probably due to associated (sinusitis) infection following blockage of draining Ostia by the mass.

Only 4 cases (0.74%) presented with dysphagia and these cases had huge choanal polyps extending to oropharynx.

However, the awareness of some mass in nose, nasopharynx, oropharynx is observed in only 278(51.5%). This is probably due to ignorance and negligence on part of patient to seek medical advice.

17(3.14%) cases presented with external deformity due to different nasal and nasopharyngeal mass and had neglected medical advice for long duration due to fear of operative intervention.

TABLE-VI Habitat Distribution (n=540)

Habitats	No. of Cases	Percentage
Urban Area	135	25.00
Rural Area	405	75.00
Total	**540**	**100.00**

The above table shows that, the percentage of nasal and nasopha ryngeal mass cases is higher in patients from rural area (75%).

Available literature does not enlighten much upon habitat as a causal factor. However most of patients in my study group are having habits of pond bathing and this institution caters a huge rural population, this study shows a higher incidence of nasal and nasopharyngeal mass from rural background. This shows that pond bathing acts as a definite positive causal factor inNasal and nasopharyngeal mass, particularly Rhinosporidiosis.

TABLE-VII Types of Nasal Polyposis and their Incidence of Laterality (n=150)

Type of polyp	Unilateral		Bilateral		Total	
	No	%	No	%	No	%
Sinonasal	2	1.69	116	98.31	118	78.66
Antro-choanal	31	96.87	1	3.13	32	21.34
Total	**33**	**22**	**117**	**78**	**150**	**100**

The incidence of bilateral polyp 78% is observed to be greater than unilateral polyps (22%). The present finding is comparable to that of Walsh (1934), Dolowitz(1961) and Sirola (1966) who reported similar unilateral incidence of 24.8%, 27.4% and 28.5% respectively.

The incidence of sinonasal polyp (78.66%) is more common than antro-choanal polyps (21.34%). This observation agrees with Cook et al (1993) who reported that 22.3% of nasal polyps were antro-choanal polyps.

However, the present incidence of antro-choanalpolypis higher than those reported by Syme (1916), Mortwitz (1931), Sirola (1966) and Murray (1988) who reported3%, 6.2%, and 1% incidence respectively, in their study of nasal polyps.

In our study all except 1(3.13%) antro-choanal polyps were unilateral in presentation. Sirola (1966) reported bilateral antro-choanal polyps in 1.2% of all nasal polyposis cases. Since the number of cases in our series is small our finding cannot be compared with them.

TABLE-VIII Nasal Allergy in Type of Polyp (n=150)

Type of nasal polyp	No of cases	No of cases showing eosinophilia in nasal smear	% of cases showing eosinophilia in nasal smear
Sinonasal	118	66	55.93
Antro-choanal	32	12	37.50

The above table shows evidence of nasal allergy, as suggested by presence of eosinophils in nasal smear in 55.93% cases of sinonasal polyposis and 37.5% cases of antro-choanal polyp.

The present finding is similar to that of Kamath et al (2002), who observed nasal smear showing evidence of allergy in sinonasal and antro-choanal polyps was 56.25% and 38.09% respectively.

However it differs from that of Wakode et al (1989) who reported 28% of cases of antro-choanal polyp and 80% of sinonasal (ethmoidal) polyposis showed allergy.

In literature the association of nasal allergy with nasal polyposis varies. In this study it is52% which is almost similar to that of Korkis et al (1958),Sorila (1966) and Settipane (1097), who reported 49.3%, 52% and 49% respectively. However Neely et al (1972) had reported of 100% association of nasal allergy with nasal polyposis cases.

But, Demoly et al (2000) reported that relationship between allergic rhinitis (Nasal allergy) and nasal polyposis were controversial and doubtful.

Walsh (1934) suggested infection as predisposing factor for polyp formation. Similar conclusion was drawn by Dinnette et al (1986).

Norlander(1993) and Stierna et al (1999) It is also possible that patients may be allergic to bacteria (Long, 1989 and Drake Lee, 1997).

TABLE – IX Incidence and Distribution of Various Neoplasms (n=540)

Neoplasm	Type of lesion	Male	Female	No. of cases	Total
Benign	Haemangioma	4	2	6	17 (3.15%)
	Inverted papilloma	1	1	2	
	Angiofibroma	9	0	9	
Malignant	Squamous cell carcinoma	2	1	3	11 (2.04%)
	Adenoid cystic carcinoma	1	0	1	
	Malignant Melanoma	2	1	3	
	Nasopharyngeal Carcinoma	3	1	4	

Above table shows that benign neoplasms presenting as nasal or nasopharyngeal mass i.e. Haemangioma, inverted papilloma, angiofibromaetc constitute about 17(3.15%) of all cases. Almost all benign neoplasms discussed above are more common in male. Few diseases are almost exclusively seen in males, e.gangiofibroma. In our study also angiofibroma was seen in exclusively adolescent male only.

Malignancies such as squamous cell carcinoma(3=0.55%), adenoid cystic carcinoma(1=0.18%), malignant melanoma(3=0.55%), Nasopharyngeal carcinoma(4=0.74%) constitute around 11(2.04%) of total cases only. This is compatible with the study made by Khan, Zafran, Ahmed that malignancy of sinonasal tract is seen in 2.8% all Nasal and nasopharyngeal mass.

TABLE-X Clinical Assessment of Extent of Nasal & Nasopha ryngeal Mass (n=540)

Findings	Seen in No. of cases	Percentage
Anterior rhinoscopy		
Anterior to middle turbinate	483	89.44
Beyond middle meatus (within nasal cavity)	196	36.29
Vestibule	03	0.55

Bleeds on touch	335	62.03
Sensitive to touch	364	67.4
Posterior rhinoscopy		
Choana	58	10.74
Nasopharynx/Oropharynx	47	8.7

The above table shows that majority (89.44%) of nasal and nasopharyngeal mass (both unilateral and bilateral) presented anterior to middle turbinate. 0.55% cases presented with nasal and/or nasopharyngeal masses clearly visible in vestibule. In 58 cases (10.74%), the masses presented with extension towards choana. In about 1/3rd of cases i.e. 196(36.29%) mass was present beyond middle meatus.

Available literature does not highlight much on this aspect of nasal and nasopharyngeal mass. Only Killian (1906) and Kelly(1909) stated that antro-choanal polyp usually passes posteriorly, towards choana.

TABLE-XI X-Ray Findings in Nasal & Nasopharyngeal Masses (n=540)

X-Ray findings	No. of cases	Percentage (%)
Mucosal thickening	20	3.70
Soft tissue shadow in nasal cavity	198	36.66
Margin demarcated	43	7.96
Haziness of sinuses	167	30.92

In this study some abnormal radiological finding was evident in most of the cases. 36.66% cases presented with soft tissue shadow in nasal cavity corresponding to the side of nasal and nasopharyngeal mass. In 3.7% cases of mucosal thickening was found in maxillary sinuses only. This might be due to early mucosal changes or due to associated chronic infection (rhinosinopathy). Haziness of sinuses is evident in 167 (30.92%) cases. No case showing air fluid level was detected. Also no case showed bony expansion or erosion on plain x-ray film.

Drake Lee (1997) opined that, the maxillary sinus will have changes in most cases, with mucosal thickening of variable degree. Fluid levels may be encountered, due retained secretion or purulent material, since blockage of maxillary ostium by polyps may prevent migration of mucus.

Margin is clearly seen in 43(7.96) cases of nasal and nasopharyngeal mass. Haziness is marked in 167(30.92%) cases mostly in maxillary sinus followed by ethmoids.

This observation agrees with Drake Lee (1997), who stated that the ethmoid complex was almost always opaque on the side of polyps, to a variable extent and these changes might also occur on the other side, where there were no visible polyps.

TABLE-XII
CT Scan Findings of Different Nasal&nasopharyngeal massesexcl uding rhinosporidiosis cases (n=226)

Findings	No of cases	Percentage(%)
Mass in nose	196	86.72
Mass in nasopharynx	30	13.27
Heterogeneous opacity	10	4.42
Bone erosion	10	4.42

The above table shows most of the nasal and nasopharyngeal mass are within the nasal cavity(86.72%) followed by mass in nasophar ynx(13.27%). Bone erosion is seen in 10(4.42%) cases which is most commonly associated with late presentation of malignancy cases. Heterogeneous opacification was seen in 10(4.42%) cases and is one of the exclusive features of fungal mass.

TABLE-XIII Recurrences (n=350)

Type of cases followed up	No of cases followed	No of cases recurred after surgery	Percentage of recurrence
Nasal polyp	110	19	17.3
Rhinosporidiosis	232	15	6.46
Fungal mass	8	1	12.5

Out of 540 cases of nasal and nasopharyngeal masses 350 number of cases have been followed up at regular interval. 19 cases (17.3%) out of 110 followed up nasal polyp had recurrence. Fungal mass and Rhinosporidiosis showed a recurrence rate of 12.5% and 6.46% respectively.

This observation is similar to that of Drake Lee (1997) who opined that patients developing polyps at younger age were more prone to recurrences.

The rate of recurrence is variable. Settipane(1991) reported 40% recurrence after polypectomy. Similarly Vento et al (2000) reported higher tendency (85%) of nasal polyposis cases to recur in a 20 year follow up survey.

SUMMARY

The present work was based on study of 540 selected cases of nasal and nasopharyngeal mass those who attended Otorhinolaryngology outpatient department of M.K.C.G.Medical College & Hospital, Berhampur. All Clinically selected cases were studied in accordance with general incidence, age and sex distribution, habitat distribution, incidence of laterality, presenting symptomatology etc and observa tions were made. Available literatures on the subject were revised. All findings have been compared with available relevant observations by other workers. They are summarized below:

- The incidence of nasal and nasopharyngeal mass with respect to total number of OPD, ENT patient is 0.72%.
- Out of 540 cases presented with nasal and nasopharyngeal mass 327(60.56%) cases are histologically diagnosed as Rhinospo ridiosis, 150(27.78%) as nasal polyp, 12(2.22%) as Adenoid hypertrophy. This indicates that Rhinosporidiosis is more prevalent in this geographical region because of frequent pond bathing and rural habitat of population.
- Age distribution showed that maximum number of cases occurred in 3rddecade (32.6%), followed by4th decade (26.29%).
- Among all patients presenting with a nasal or nasopharyngeal mass, males were more affected in all age groups than females. The average male to female ratio is found to be (322:218) 1.47:1.
- The most common clinical presentation of cases with nasal and/or Nasopharyngeal mass is Blood stained Nasal discharge (67.03%) followed by nasal obstruction(41.29%), post nasaldrip(38.33%), Running Nose (37.7%), and Fullness in nasal cavity(33.14%).
- The percentage of nasal and nasopharyngeal mass cases is higher in patients from rural area (75%).
- The incidence of bilateral polyp 78% is observed to be greater than unilateral polyps (22%) among the 150 nasal polyp cases out of 540 cases presented with nasal and nasopharyngeal mass.
- The incidence of sinonasal polyp (78.66%) is more common than antro-choanal polyps (21.34%).
- There is evidence of nasal allergy and its association with Nasal polyposis, as suggested by presence of eosinophils in nasal smear in 55.93% cases of sinonasal polyposis and 37.5% cases of antro-choanal polyp.
- Out of 10 fungal mass cases 2 cases (20%) are associated with AIDS, and these showed a fulminant course, indicating that immunocompromised status is having a definite causal role in etiopathogenesis of fulminant fungal rhinosinusitis.
- Upper respiratory tract infection (sinusitis, tonsillitis, pharyngitis, and rhinitis) is observed in majority of cases and many had more than one infectious condition. Among them pharyngitis(throat irritation) is found in 30.55% (165) cases.Benign neoplasms presenting as nasal or nasopharyngeal mass i.e. Haemangioma, inverted papilloma, angiofibroma etc constitute about 17(3.15%) of all cases. Few diseases are almost exclusively seen in males, e.g - angiofibroma seen exclusively in adolescent male in our study.
- Malignancies such as squamous cell carcinoma(3=0.55%), adenoid cystic carcinoma(1=0.18%), malignant melano ma(3=0.55%), Nasopharyngeal carcinoma(4=0.74%) constitute around 11(2.04%) of total cases only.
- Majority (89.44%) of nasal and nasopharyngeal mass (both unilateral and bilateral) presented anterior to middle turbinate.
- In about 1/3rd of cases i.e. 196(36.29%) mass was present beyond middle meatus.
- Only 0.55% cases presented with nasal and/or nasopharyngeal masses clearly visible in vestibule.
- In 58 cases (10.74%), the masses presented with extension

towards choana.

- On radiological investigation 36.66% cases presented with soft tissue shadow in nasal cavity corresponding to the side of nasal and nasopharyngeal mass.
- Haziness of sinuses is evident in 167(30.92%) cases.
- Most of the nasal and nasopharyngeal mass are within the nasal cavity (86.72%) followed by mass in nasopharynx(13.27%) as evidenced by CT scanning.
- Bone erosion is seen in 10(4.42%) cases which is most commonly associated with late presentation of malignancy cases.
- Heterogeneous opacification in CT scan was seen among 10(4.42%) cases and is one of the exclusive feature of fungal mass.
- 19 cases (17.3%) out of 110 followed up nasal polyp had recurrence.
- Fungal mass and Rhinosporidiosis showed a recurrence rate of 12.5% and 6.46% respectively.

CONCLUSION

Although nasal and nasopharyngeal mass is a common disease in E.N.T practice, it should not be taken casually. Commonly it is seen in younger age group but it can affect all age groups. Most common clinical presentation is nasal bleeding / blood stained nasal discharge of varying degree. There is definite association of pond bathing with nasal and nasopharyngeal Rhinosporidiosis. This might play an important role in etiopathogenesis. Nasal smear is a simple but reliable investigation which can be used for detecting presence of nasal allergy. Radiological investigation delineates the extent of disease. At the present times, CT scan is an important tool for diagnosis of nasal and nasopharyngeal pathology. This has become mandatory prior to management plan. At times a nasal or nasopharyngeal mass may not be as simple as it looks but something sinister may lie underneath. This stresses upon the importance of routine histopathological study.

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