



DIFFERENTIAL DIAGNOSIS OF NASAL MASS IN A TERTIARY CARE HOSPITAL OF JHARKHAND

Dr. Md Raihan	Post-Graduate Student, Department of Pathology, RIMS, Ranchi.
Dr. Suraj Sinha*	Post-Graduate Student, Department of Pathology, RIMS, Ranchi. *Corresponding Author
Dr. Sona Pathak	Post-Graduate Student, Department of Pathology, RIMS, Ranchi.
Dr. Sunil Kumar Mahto	Associate Professor, Department of Pathology, RIMS, Ranchi.

ABSTRACT

Background: Nasal mass is abnormal growth in the nose, which may be benign or malignant and may be unilateral or bilateral. Nasal masses in most patients present with complaints of nasal obstruction. It may cause nasal discharge, epistaxis and anosmia. A nasal mass can have various differential diagnosis which this study aims to explore. **Material and Methods:** A retrospective study of histopathologically diagnosed cases of nasal masses for a period 3 years from January 2017 to December 2019. **Results:** Out of 95 patients 55 (57.89%) male and 40 (42.10%) female, male to female ratio is 1.37:1 with a mean age of 23 years (range= 2-63 years). Most of the cases 94(98.95%) were non-malignant and only 1(1.05%) was malignant (Adenoid cystic carcinoma). Malignancy of sinonasal tract is rare. **Conclusion:** With this study we can say that nasal masses are more common in males than females, adults age groups affected more than elderly age groups. It is also inferred that most of the nasal masses are benign in nature and very few cases are malignant in nature.

KEYWORDS : nasal mass, benign, malignant, histopathology, retrospective.

INTRODUCTION

Any abnormal growth found in the nose could be benign or malignant and unilateral or bilateral. Nasal masses commonly present with complaints of nasal obstruction¹. Other symptoms may include nasal discharge, epistaxis and anosmia. A nasal mass can have various differential diagnosis. They may be congenital, inflammatory, neoplastic (benign or malignant) or traumatic in nature. A congenital nasal mass may present intranasally, extranasally, or as external nasal mass with or without nasal obstruction². Polyps are a common cause of nasal obstruction in adults with a prevalence of about 4% in the general population³. Polyps are also known as prolapsed pedunculated mucosa.

MATERIAL AND METHODS

It was a retrospective study of 3 years duration, from January 2017 to December 2019, performed in the Department of Pathology, RIMS, Ranchi. Study population included 95 cases of nasal masses operated in the ENT department and specimen sent for histopathological examination. Reports having major typographical errors were excluded from the study. Study Procedure involved case reports having patient age, sex, and histopathological diagnosis of the lesion. Surgically excised mass was transferred to jar containing 10% formaldehyde. Histopathological examination of all the specimens was done by routine paraffin wax sections and was stained by Haematoxylin and Eosin (H&E). The epidemiological data in terms of age, sex, site, laterality and size of tumor were compared. All data was analysed using Microsoft Excel 2019.

RESULT AND DISCUSSION

The present study consisted of 55 (57.89%) male and 40 (42.10%) female with a mean age of 23 years (range = 2-63 years), Zafar et al.⁴ shows the mean age of presentation was 22.5 years. Male and Female ratio is 1.37:1, shows male predominance of Nasal mass. Lathi et al.⁵ and Zafar et al.⁴ from India, shows male to female ratio of 1.5:1 and 1.7:1 respectively, which was slightly higher than my study. while a study from Nigeria by Bakari et al.⁵ revealed an opposite ratio showing female preponderance (M:F ratio of 1:1.2).

In this study we found that most common affected age group was 11-20 years followed by age group of less than 10 years

and 51-70 years age groups are least affected. Lathi et al.⁵ Also showed, 11-20 years age groups were most affected.

In our study, out of 95 cases 45(47.36%), 24(25.26%), 19(20%), 3(3.15%), 1(1.05%),1(1.05%), 1(1.05%), and 1(1.05%) are belongs to Inflammatory Polyp, Angiofibroma, Rhinosporidiosis, Hemangioma , Fibrocollagenous Tissue, Epidermoid Cyst, Inverted Papilloma and Adenoid cystic Carcinoma respectively. Most of the patients 94(98.95%) are non-malignant and 1(1.05%) are malignant (Adenoid cystic carcinoma). Malignancy of sinonasal tract is rare⁷.

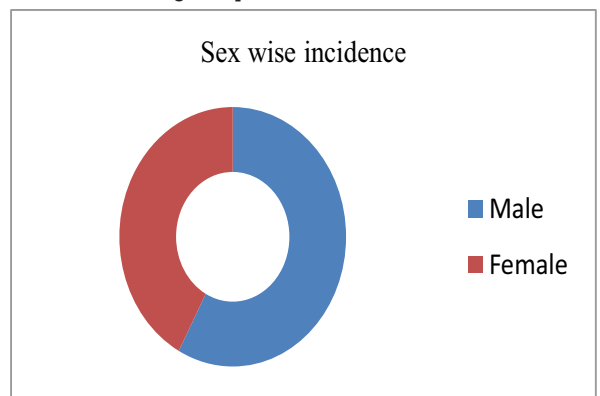


Fig.1: Sex-wise Incidence Of Cases

Table – 1 Disease-wise Incidence Of Cases

Differential Diagnosis	Male	Female	Number of Patient (Percentage)
Inflammatory Polyp	19	26	45(47.36%)
Angiofibroma	16	8	24(25.26%)
Rhinosporidiosis	16	3	19(20%)
Hemangioma	1	2	3(3.15%)
Fibrocollagenous Tissue	1	0	1(1.05%)
Epidermoid Cyst	1	0	1(1.05%)
Inverted Papilloma	1	0	1(1.05%)
Adenoid Cystic Carcinoma	0	1	1(1.05%)
Total	55	40	95

Table – 2 Age Group-wise Incidence Of Cases

Age groups	Number of Patients
< 10	20
11-20	32
21-30	18
31-40	12
41-50	09
51-60	02
61-70	02
Total	95

CONCLUSIONS

With this study we can say that inflammatory polyp, Angiofibroma and Rhinosporidiosis are most common nasal mass lesions sent for histopathology, various nasal masses are more common in males than females, adults age groups affected more than elderly age groups.

It also infer that most of the nasal masses are benign in nature and very few cases are malignant in nature.

REFERENCES

- [1] Humayun AHM, Huq AHMZ, Ahmed SMT, Kamal MS, Khin UK, Bhattacharjee N (2010) "Clinicopathological study of sinonasal masses" *Bangladesh J Otorhinolaryngol*, 16:15-22.
- [2] Harley EH (1991) " Pediatric congenital nasal masses" *Ear Nose Throat J*, 70: 28-32.
- [3] Hedman J, Kaprio J, Poussa T (1999) " Prevalence of asthma, aspirin intolerance, nasal polyposis and chronic obstructive pulmonary disease in a population-based study" *Int J Epidemiol*, 28: 717-722.
- [4] Zafar U, Khan N, Afroz N, Hasan SA (2008) " Clinicopathological study of non-neoplastic lesions of nasal cavity and paranasal sinuses" *Indian J Pathol Microbiol*, 51:26-29.
- [5] Lathi A, Syed MMA, Kalakoti P, Qutub D, Kishve SP (2011) "Clinicopathological profile of sinonasal masses: a study from a tertiary care hospital of India" *Acta Otorhinolaryngol Ital*, 31(6): 372-377.
- [6] Bakari A, Afolabi OA, Adoga AA, Kodiya AM, Ahmad BM (2010) " Clinicopathological profile of sinonasal masses: an experience in national ear care center Kaduna, Nigeria" *BMC Research Notes*, 3: 186-186.
- [7] Zimmer LA, Carrara RL. " Neoplasms of the nose and paranasal sinuses" In: *Head & Neck Surgery - Otolaryngology*. 4th edition, Philadelphia, PA: Lippincott, Williams & Wilkins; 2006.