

Histopathological study of nasal polyp in adult patient

Vasundhara P Varute

Assistant Professor, Department of ENT, D.Y. Patil Medical College, Kolhapur, Maharashtra, INDIA.

Email: varute.v@gmail.com

Abstract

Background: Nasal polyps are essentially rounded projections of edematous membrane above a mucosal surface and projects into lumen. **Aims and Objectives:** To study histopathological study of nasal polyp in Adult patient. After approval from institutional ethical committee a cross-sectional study was carried out in the department of Otolaryngology in the patients diagnosed as nasal mass during the year March 2016 to March 2017. All the patients who were presented as nasal mass were included into study except the immunocompromised patients, who don't given the written consent. During one year period there were 54 patients taken into study. All details of the patients like age, sex, clinical diagnosis and histopathology in the patients done with all the standard protocols. **Result:** Most common age group in our study was 40-50 i.e. 34.55% , followed by 20-30 -27.27%, 50-60 was 16.36%, 30-40 was 12.73%, >60 were 5.45%, and 10-20 were 3.64%. The majority of the patients were Male i.e. 63.64% and Female were 36.36%. As per the clinical diagnosis Non-allergic polyps constituted 35.19%, followed by Allergic polyps .27.78%, Nonspecific polyps in 16.67%, Rhinosporidiosis in 7.41%, Mucormycosis- 5.56%, Aspergilosis and Rhinoscleroma in -3.70%. On histopathology , Benign was 30.91%, Inverted nasal papilloma was 21.82%, Spinonasalpapiloma with oncocytic epithelium was 16.36%, Everted papilloma -9.09%, Pleomorphic adenoma-7.27%, Nasopharyngeal angiofibroma was 5.45%, Neurilemomma (schwannoma)-3.64%, Meningothelial meningioma-1.82%, Malignant- 1.82%, Olfactory neuroblastoma -1.82%. **Conclusion:** It can be concluded from our study that most common age was 4th and 2nd decade, Non-allergic polyps were most common followed by Allergic polyps. On histopathology Benignlesion, followed by Inverted nasal papilloma Spinonasalpapiloma with oncocytic epithelium were most common presentations.

Key Words: Nasal polyp, Nasal Mass, Inverted nasal papilloma, Spinonasalpapiloma.

* Address for Correspondence:

Dr. Vasundhara P. Varute, Assistant Professor, Department of ENT, D.Y. Patil Medical College, Kolhapur, Maharashtra, INDIA.

Email: varute.v@gmail.com

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INTRODUCTION

Nasal polyps are essentially rounded projections of edematous membrane above a mucosal surface and projects into lumen.¹ They are often bilateral and multiple which lead to visible broadening of nose.² Simple nasal polyps are round, smooth, soft, translucent, yellow or pale glistening structures attached to the nasal or sinus mucosa

by a relatively narrow stalk or pedicle. They are nontender and displaced backwards on probing. The most common site of origin is in the ethmoidal labyrinths, particularly from the mucosa of the middle turbinate.² Nasal polyps most frequently occur in middle-aged males.² Lesions of the nasal cavity, nasopharynx, and paranasal sinuses provide problem in their diagnosis, prognosis, and management because of certain unusual clinic pathological features.³

MATERIAL AND METHODS

After approval from institutional ethical committee a cross-sectional study was carried out in the department of Otolaryngology in the patients diagnosed as nasal mass during the year March 2016 to March 2017. All the patients who were presented as nasal mass were included into study except the immunocompromised patients, who don't given the written consent. During one year period there were 54 patients taken into study. All details of the

patients like age, sex, clinical diagnosis and histopathology in the patients done with all the standard protocols.

RESULT

Table 1: Age wise distribution of the patients

Age	No.	Percentage (%)
10-20	2	3.64
20-30	15	27.27
30-40	7	12.73
40-50	19	34.55
50-60	9	16.36
>60	3	5.45
Total	55	100.00

The most common age group in our study was 40-50 i.e. 34.55%, followed by 20-30 27.27%, 50-60 was 16.36%, 30-40 was 12.73%, >60 were 5.45%, and 10-20 were 3.64%.

Table 2: Distribution of the patients as per the sex

Sex	No.	Percentage (%)
Male	35	63.64
Female	20	36.36
Total	55	100.00

The majority of the patients were Male i.e. 63.64% and Female were 36.36%.

Table 3: Distribution of the patients as per the Clinical Diagnosis

Clinical Diagnosis	No.	Percentage (%)
Allergic polyps	15	27.78
Non-allergic polyps	19	35.19
Nonspecific polyps	9	16.67
Rhinosporidiosis	4	7.41
Mucormycosis	3	5.56
Aspergilosis	2	3.70
Rhinoscleroma	2	3.70

As per the clinical diagnosis Non-allergic polyps constituted 35.19%, followed by Allergic polyps 27.78%, Nonspecific polyps in 16.67%, Rhinosporidiosis in 7.41%, Mucormycosis- 5.56%, Aspergilosis and Rhinoscleroma in -3.70%.

Table 4: Distribution of the patients as per the Histopathology

Histopathology	No.	Percentage (%)
Benign	17	30.91
Inverted nasal papilloma	12	21.82
Spinonasalpapiloma with oncocytic epithelium	9	16.36
Everted papilloma	5	9.09
Pleomorphic adenoma	4	7.27
Nasopharyngeal angiofibroma	3	5.45
Neurilemomma (schwannoma)	2	3.64
Meningothelial meningioma	1	1.82
Malignant	1	1.82
Olfactory neuroblastoma	1	1.82
Total	55	100.00

On histopathology , Benign was 30.91%, inverted nasal papilloma was 21.82%, Spinonasalpapiloma with oncocytic epithelium was 16.36%, Everted papilloma - 9.09%, Pleomorphic adenoma-7.27%, Nasopharyngeal angiofibroma was 5.45%, Neurilemomma (schwannoma)-3.64%, Meningothelial meningioma-1.82%, Malignant- 1.82%, Olfactory neuroblastoma - 1.82%.

DISCUSSION

Nasal polyposis (NP) is the ultimate manifestation of chronic inflammation of the upper airways mucosa characterized by swellings that occur usually in the middle meatus and ethmoid sinuses and prolapsed into the nasal cavity. This chronic disease seems more frequent in men than in women and may affect 1% to 4% of the general adult population in Europe. Despite the fact that nasal polyps have been observed in all racial groups, there are as yet no published reports regarding the incidence of this disease and its histological characteristics in the African and Chinese populations. One can differentiate simple polyp from bilateral polyposis as well as to what extent chronic inflammation of the ethmoid cells is a pre-polypoidal condition.^{10,11,12} Nasal masses are not true neoplasm, their formation is associated with inflammation, allergy, infection, and/or mucoviscidosis.⁴ Nonneoplastic nasal masses were more common in the age group of fourth and fifth decades, while neoplastic masses were more in fifth and sixth decades.^{5,6} Nasal polyposis is a relatively common condition found in 1–4% of the general population and in high percentages among some selected groups of patients. The polyps are found in 36% of patients with aspirin intolerance, in 7% of those with asthma, in 20% of those with cystic fibrosis and in 2% of those with chronic rhinosinusitis.⁷ Nasal polyps diagnosed clinically are not always of inflammatory origin. A variety of non-neoplastic and neoplastic conditions can present as nasal polyps. Non-neoplastic conditions such as Wegener’s granulomatosis, sarcoidosis, rhinosporidiosis; benign neoplastic conditions such as inverted papilloma, capillary hemangioma (pyogenic granuloma), angiofibroma, chondroma, plasmacytoma, meningioma, leiomyoma, schwannoma, meningoencephalocele, pituitary adenoma, paraganglioma; and malignant conditions such as squamous cell carcinoma, adenocarcinoma, malignant melanoma, chordoma, olfactory neuroblastoma, rhabdomyosarcoma and adenoid cystic carcinoma can present as nasal polyps.^{8,9} In our study we have seen that the most common age group in our study was 40-50 i.e. 34.55% , followed by 20-30 - 27.27%, 50-60 was 16.36%, 30-40 was 12.73%, >60 were 5.45%, and 10-20 were 3.64%. The majority of the

patients were Male i.e. 63.64% and Female were 36.36%. As per the clinical diagnosis Non-allergic polyps constituted 35.19%, followed by Allergic polyps .27.78%, Nonspecific polyps in 16.67%, Rhinosporidiosis in 7.41%, Mucormycosis- 5.56%, Aspergilosis and Rhinoscleroma in -3.70%. On histopathology , Benign was 30.91%, Inverted nasal papilloma was 21.82%, Spinonasalpapiloma with oncocytic epithelium was 16.36%, Everted papilloma -9.09%, Pleomorphic adenoma-7.27%, Nasopharyngeal angiofibroma was 5.45%, Neurilemomma (schwannoma)-3.64%, Meningothelial meningioma-1.82%, Malignant- 1.82%, Olfactory neuroblastoma -1.82%. These findings are similar to Alpesh M. Maru et al.¹³ they found Nonneoplastic nasal masses formed the largest group of lesions; 50 cases (71.43%), followed by 20 cases (28.57%) of neoplastic nasal masses, in neoplastic masses we found 14 benign and 6 malignant cases.

CONCLUSION

It can be concluded from our study that most common age was 4th and 2nd decade, Non-allergic polyps were most common followed by Allergic polyps. On histopathology Benign lesion, followed by Inverted nasal papilloma Spinonasalpapiloma with oncocytic epithelium were most common presentations.

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