



Nasal Polyps- Causes and Associated Symptoms- A Clinical Study

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Abstract

Background: Nasal polyps (NP) are mucosal lesions of the nasal or paranasal sinuses that can result from a response to inflammatory or infectious stimuli. The present study was conducted to determine the causes and occurrence of nasal polyps in study population.

Materials & Methods: This study was conducted in the department of Ear, Nose and Throat in year 2015. It comprised of 362 patients who visited the department with complaint of nasal polyps. Symptoms such as nasal obstruction, rhinorrhea, snoring, voice changes, ear problems etc were noted. History of any food allergy or drug allergy was noted. Family history asthma, allergy, medical or surgical treatment was obtained.

Results: Out of 362 patients, males were 210 and females were 152. The difference was non-significant ($P=0.12$). Age group 10-20 years had 72 males and 50 females, age group 20-30 years had 58 males and 46 females, age group 30-40 years had 48 males and 38 females and patients > 40 years had 32 males and 18 females. The difference was significant ($P=0.03$). Common symptoms were nasal obstruction (78%), snoring (65%), rhinorrhea (58%), voice change (45%), mouth breathing (41%) and post nasal drip (32%). The difference was significant ($P=0.01$).

65 males and 41 females had family history of asthma and 91 males and 57 females had history of allergy. Unilateral nasal polyps were seen in 88 males and 60 females. Bilateral nasal polyps were seen in 122 males and 92 females.

Conclusion: Nasal polyps are among commonly occurring nasal disease. It is more prevalent in males as compared to females. Allergy, asthma are among common causes.

Keywords: mouth breathing, Nasal polyps, rhinorrhea,

Introduction

Nasal polyps (NP) are mucosal lesions of the nasal or paranasal sinuses that can result from a response to inflammatory or infectious stimuli. It affects 1% to 4% of the population. Males are predominantly affected than females and more commonly seen in adults. 16.5% of asthmatic patients over 40 years of age have more prevalence. They are smooth, round, semi-translucent masses that are most commonly found in the middle meatus and ethmoid sinuses.¹

Patients with nasal polyposis may present clinically with complaints of nasal obstruction, congestion, hyposmia, rhinorrhea, epistaxis, postnasal drip, headaches, and snoring. Symptoms include decreased taste, post nasal drip, trouble breathing through the nose, loss of smell and a runny nose. The growths are sac-like, movable, and nontender. They typically occur in both nostrils in those who are affected. Face pain may occasionally occur. Bilateral nasal polyposis are more common than unilateral.²

The exact cause is unclear. They occur more commonly among people who have allergies, cystic fibrosis, aspirin sensitivity, or certain infections. Elevated levels of histamine and IgE found around polyps, and mast cells and eosinophilia found within polyps provide evidence suggesting that inflammation is a major factor in polyp formation.³

Chronic rhinosinusitis, asthma, aspirin-induced asthma, or aspirin-exacerbated respiratory disease (AERD), cystic fibrosis are among various diseases associated with nasal polyps.

Topical corticosteroids are used conservatively as they reduce the size of the polyp and improve nasal breathing and prevent recurrence. Functional endoscopic sinus surgery (FESS) may be done in large sized polyps and in those who don't respond to treatment.⁴ The present study was conducted to determine the causes and occurrence of nasal polyps in study population.

Materials & Methods

This study was conducted in the department of Ear, Nose and Throat in year 2015. It comprised of 362 patients who visited the department with complaint of nasal polyps. All were informed regarding the study and written consent was obtained. Patient information such as name, age, gender, etc was recorded.

Symptoms such as nasal obstruction, rhinorrhea, snoring, voice changes, ear problems etc were noted. History of any food allergy or drug allergy

was noted. Family history asthma, allergy, medical or surgical treatment was obtained. Results were tabulated and subjected to statistical analysis. P value < 0.05 was considered significant.

Results

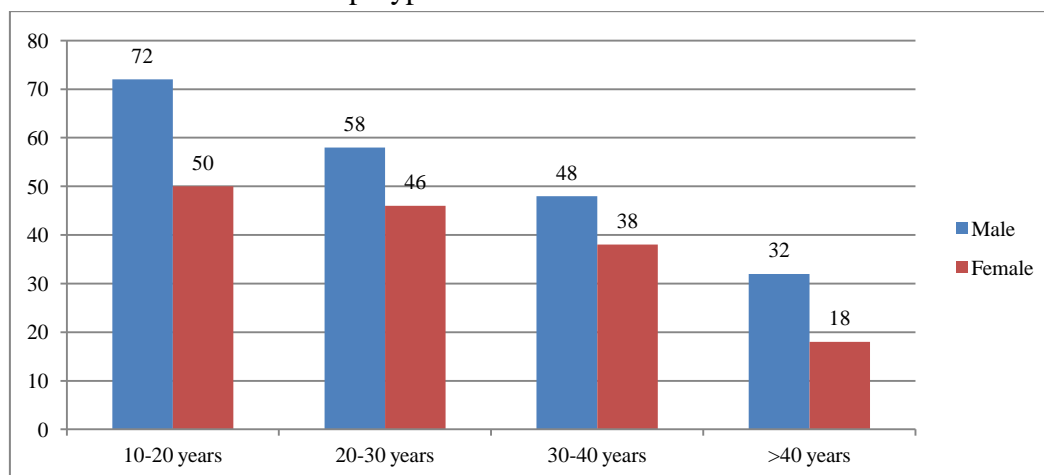
Table I shows that out of 362 patients, males were 210 and females were 152. The difference was non- significant (P- 0.12). Graph I shows that age group 10-20 years had 72 males and 50 females, age group 20-30 years had 58 males and 46 females, age group 30-40 years had 48 males and 38 females and patients > 40 years had 32 males and 18 females. The difference was significant (P- 0.03). Graph II shows that common symptoms were nasal obstruction (78%), snoring (65%), rhinorrhea (58%), voice change (45%), mouth breathing (41%) and post nasal drip (32%). The difference was significant (P- 0.01).

Graph III shows that 65 males and 41 females had family history of asthma and 91 males and 57 females had history of allergy. Graph IV shows that unilateral nasal polyps were seen in 88 males and 60 females. Bilateral nasal polyps were seen in 122 males and 92 females.

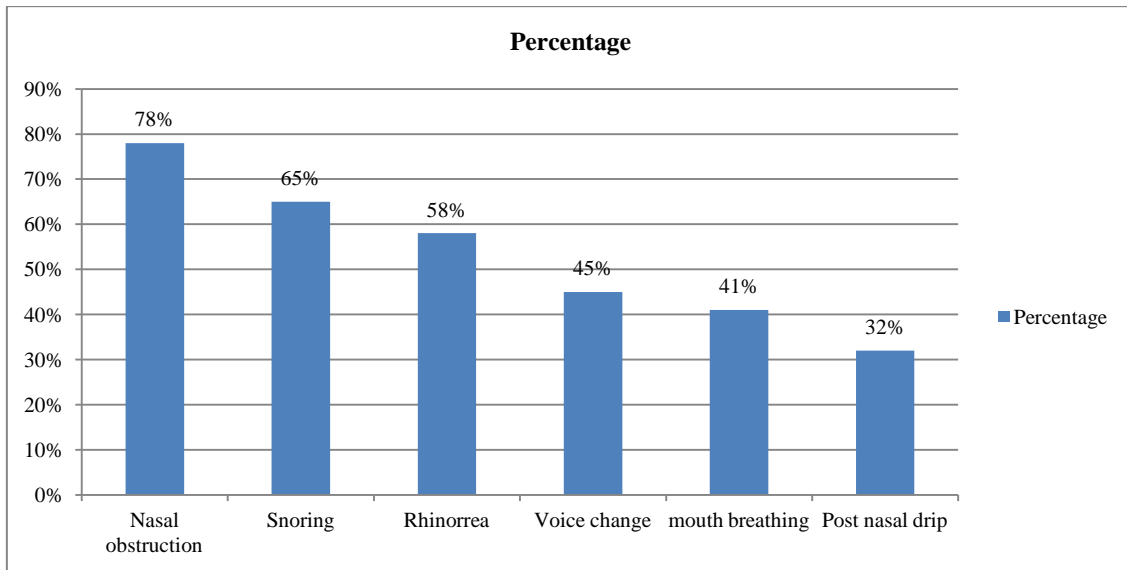
Table I Distribution of patients

Total - 362		
Male	Female	P value
210	152	0.12

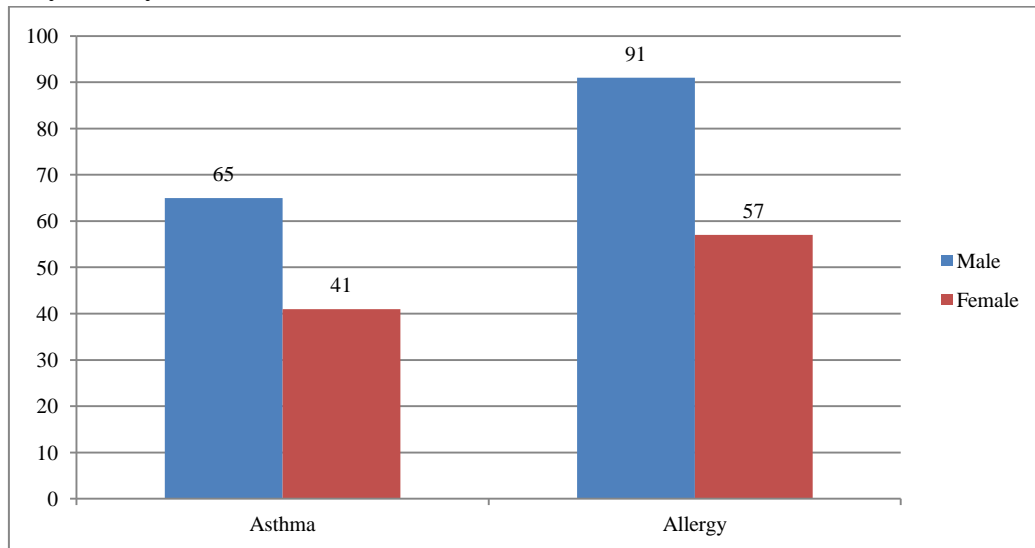
Graph I Age wise distribution of nasal polyps



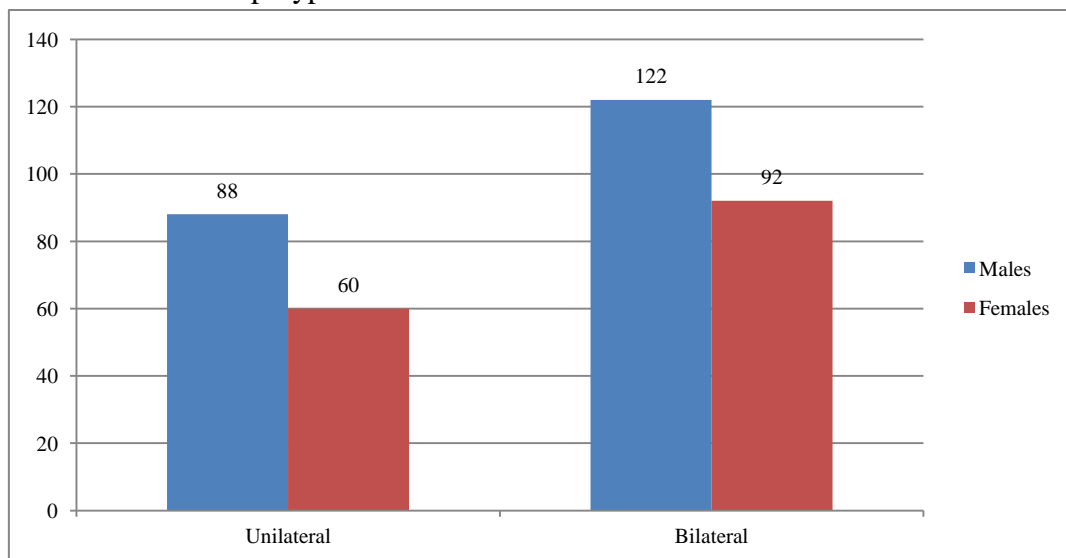
Graph II symptoms associated with nasal polyps



Graph III Family history



Graph IV Occurrence of nasal polyps



Discussion

Nasal polyps are common in middle age person with male predominance. It has multiple etiologies such as allergy, hypersensitivity reactions, family history etc. Management includes medicinal treatment and surgical treatment. The present study was conducted to determine the causes and occurrence of nasal polyps in study population.

In this study, out of 362 patients, males were 210 and females were 152. Maximum number of patients was seen in age group 10-20 years followed by age group 20-30, age group 30-40 years and > 40 years had 32 males and 18 females. This is in accordance to Larson K et al.⁵

In this study we found that common symptoms were nasal obstruction, snoring, rhinorrhea, voice change, mouth breathing and post nasal drip. This is in agreement with Klossek et al.⁶

Nasal polyps are usually classified into antrochoanal polyps and ethmoidal polyps. Antrochoanal polyps arise from the maxillary sinuses and are the much less common. ethmoidal polyps arise from the ethmoidal sinuses. Symptoms of polyps include nasal congestion, sinusitis, anosmia (loss of smell), and secondary infection leading to headache.⁷

We found that 65 males and 41 females had family history of asthma and 91 males and 57 females had history of allergy. Allergy is one of the causative agents leading to nasal polyp. Similar results were seen in study by Hashemian et al.⁸ However, Slavin⁹ in his study found asthma as one of the leading cause.

Nasal polyps usually occur bilaterally. In our study also, bilateral nasal polyps were seen in 122 males and 92 females as compared to unilateral nasal polyps which were seen in 88 males and 60 females.

Nasal polyps are usually treated with steroids or topical, but can also be treated with surgical methods. The removal of nasal polyps via surgery lasts approximately 45 minutes to 1 hour.¹⁰ The surgery can be done under general or local anaesthesia, and the polyps are removed using endoscopic surgery such as FESS.

Conclusion

Nasal polyps are among commonly occurring nasal disease. It is more prevalent in males as compared to females. Allergy, asthma are among common causes.

References

1. Hedman J, Kaprio J, Poussa T, Nieminen MM. Prevalence of asthma, aspirin intolerance, nasal polyps and chronic obstructive pulmonary disease in a population based study. *Inter J Epidemiol.* 1999; 28: 717-22.
2. Settipane GA, Chafee FH. Nasal polyps in asthma and rhinitis: A review of 6037 patients. *J Allergy Clin Immunol.* 1977; 59: 7-21.
3. Badia L, Lund V. Topical corticosteroids in nasal polyposis. *Drugs.* 2001; 61: 573-8.
4. Lanza DE, Kennedy DW. Current concepts in the surgical management of nasal polyposis. *J Allergy Clin Immunol.* 1992; 90: 543-6.
5. Larsen K, Tos M. The estimated incidence of symptomatic nasal polyps. *Acta Otolaryngol* 2002; 122: 179-82.
6. Klossek JM, Neukirch F, Pribil C, Jankowsli R, Serrano E, Chanal A, et al. Prevalence of nasal polyposis in France: A cross sectional, case-control study. *Allergy.* 2005; 60: 233-7.
7. Munos AT, Puchol CH, Molinero CN, Simal MG, Cunchillos MN, Campillo A NG. Epidemiologic study in patients with nasal polyposis. *Acta Otorrinolaryngol Esp.* 2008; 59: 438-43.
8. Hashemian F, Farahani F. [Frequency of nasal polyposis in chronic rhinosinusitis and role of endoscopic examination in correct diagnosis]. *Scientific journal of Hamadan University of Medical Sciences* 2005; 12: 20-3.
9. Slavin RG, Lindford P, Fiedman WG. Sinusitis and bronchial asthma. *J Allergy Clin Immunol.* 1982; 102: 69.

10. Tritt S, McMain KC, Kountakis SE.
Unilateral nasal polyposis: Clinical
presentation and pathology. Am J
Otolaryngol. 2008; 29: 230-2.