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Prevalence of Nasal Polyposis at OPD of ENT Department of SMBT Institute of Medical Sciences, Nasik

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Abstract: Nasal polyp is a benign lesion that arises from the mucosa of the nasal sinuses or from the mucosa of the nasal cavity as a macroscopic edematous mass. The exact etiology is still unknown and controversial. The present study was done to study the prevalence of nasal polyp in patients coming to the OPD of the hospital. This cross-sectional study was carried out over a period of 14 months from April 2016 to June 2017 at ENT department of SMBT institute of medical sciences, Nasik. All the patients were undergone detailed history taking, physical and nasal examination and diagnostic nasal endoscopy. The data was collected and analyzed. Total of 678 patients were screened during the period of study and we found 31 (4.57%) patients with nasal polyp. The majority of the patients were in the age group of 36 to 55 years, there was predominance of males over females. Regarding clinical symptoms, the most common complaint was nasal obstruction seen in 83.56%. The other common complaints seen were nasal discharge (67.74%), snoring (45.14%), headache and facial pain (25.80%). Most of the patients (47.65%) had duration of symptoms of 1-3 years. Nasal polyp was more common in males and in the middle age patients. Recurrent nasal infections for duration of more than 1 year were the most common risk factor.
Keywords: Nasal Polyp, Prevalence, Nasal Infections.

INTRODUCTION

Nasal polyps are regarded as by benign lesions that rise from the mucosa of the nasal sinuses, most frequently from the anterior ethmoid complex or from the mucosa of the nasal cavity.

They are common chronic inflammatory diseases of the nasal mucosa. These polyps can run down between the middle turbinate and the lateral nasal wall into the nasal cavity resulting in symptoms such as nasal congestion, rhinorrhea, hyposmia and facial pressure [1,2].

Patients with nasal polyposis may present clinically with complaints of nasal obstruction, congestion, rhinorrhea, hyposmia, epistaxis, headaches, postnasal drip, and snoring. Although nasal polyps more commonly appear bilaterally they can also present unilaterally. In unilateral nasal masses, benign or malignant pathologies must be considered and distinguished by nasal endoscopy, CT scan, and biopsy [3].

It is challenging for the otorhinolaryngologist to treat as they have an undefined etiology and a tendency to recur. It is even more significant for the respiratory physician to be aware of effects of the treatment of nasal polyps which can cause bad impact on chronic obstructive pulmonary disease, particularly in asthma [1, 4].

The present study was done to study the prevalence of nasal polyp in patients coming to the OPD of the hospital.

MATERIALS AND METHODS

This cross-sectional study was carried out over a period of 14 months from April 2016 to June 2017 at ENT department of SMBT institute of medical sciences, Nasik. The nasal polyp patients were identified by the team of expert doctors and their record was maintained. Informed consent was taken from the participant patients. Approval of ethical committee was also taken before start of the study.

Detailed information of the patients regarding nasal polyp was taken like laterality of nasal polyp, type of nasal polyp, clinical symptoms, etc. All the patients were undergone detailed history taking, physical and nasal examination and diagnostic nasal endoscopy. The data was collected and analyzed.

RESULTS

Total of 678 patients were screened during the period of study and we found 31 (4.57%) patients with nasal polyp. The majority of the patients were in the age group of 36 to 55 years, there was predominance of males over females. (Table 1) Out of 31 patients of nasal polyp 19 were bilateral and 12 were unilateral.

Regarding clinical symptoms of the patients with nasal polyp, 89 % of the patients were presented with clinical symptoms. The most common complaint was nasal obstruction seen in 83.56%. The other common complaints seen were nasal discharge (67.74%), snoring (45.14%), headache and facial pain (25.80%). (Table 2)

Most of the patients (47.65%) had duration of symptoms of 1-3 years. Regarding etiology of the nasal polyp, 48.23% patients gave history of recurrent nasal infections, 39.45% gave history of nasal allergy. Other etiological factors found were family history, asthma, etc.

Table-1: Age-wise distribution of the patients.

Age group	Male	Female	Total
16 to 35 years	5	4	9
36 to 55 years	10	7	17
56 years and above	3	2	5
Total	18 (58.08%)	13 (41.92%)	31

Table-2: Clinical symptoms of the patients.

Clinical symptom		%
Nasal obstruction	26	83.56
Nasal discharge	21	67.74
Snoring	14	45.16
Headache and facial pain	8	25.80
Loss of smell	6	19.35
Post nasal discharge	6	19.35
Nasal bleed	2	6.45

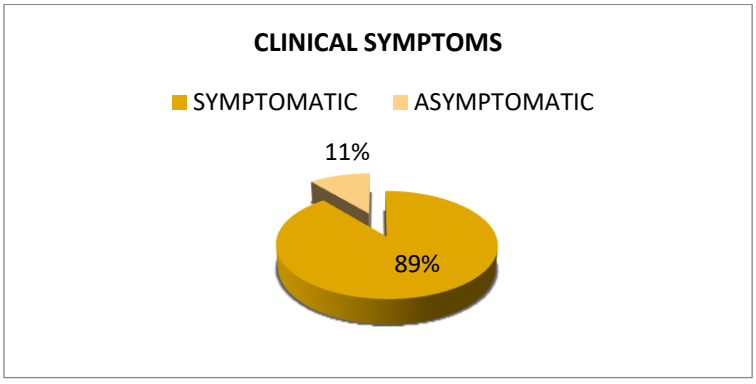

Fig-1: Distribution of the according to clinical symptoms

DISCUSSION

Many proposed theories consider that nasal polyps are a concern of conditions which cause chronic inflammation in the nose and nasal sinuses characterized by stromal edema and variable cellular infiltrate. While in many cases the initiating cause may be different. However, the etiology of nasal polyps is clearly not known [1,5].

The frequent presenting symptom of nasal polyps is nasal obstruction but can differ depending on the site and size of the polyps. Others symptoms are watery rhinorrhea and postnasal drip. They are insensitive to palpation and rarely can bleed. The distinguishing symptoms are anosmia or hyposmia with an alteration in taste. They are mostly bilateral and when found unilateral require histological examination to exclude malignancy or other pathology like inverted papilloma. Single or multiple pale, grey polypoid macroscopic masses arising most frequently from the middle meatus and prolapsing into the nasal cavity are found on rhinoscopy. Histopathological examination reveals polypidal tissue composed of loose connective tissue, inflammatory cells, edema, and some capillaries

and glands. The surface of nasal polyps is covered with different types of epithelium, most commonly pseudostratified respiratory epithelium with goblet cells and ciliated cells. The most common inflammatory cell infiltrates in nasal polyps are eosinophils [1].

In the present study, 58.08% patient was males and 41.92% patients were females. Similar results were found in the study done by Hashemian *et al*. [6], who found that 60% of patients of nasal polyps were males and remaining 40% females. Various studies have also shown male predominance to be between 2:1 to 4:1 [7].

Chronic infection also leads to nasal polyps. It causes chronic persistent inflammation which leads to nasal polyps. In our study the most common risk factor found was recurrent nasal infection (48.23%). This finding was in accordance to the study done by Nanda MS *et al*. [7], where recurrent infections was found in 40% of patients as a major etiological factor. Other studies of Dalaney JC *et al*. [8], Blumstein GI *et al*. [9] and English G *et al*. [10] put incidence of allergy in patients with nasal polyps at 10%, 54% and 68%.

History of the patients presented with the endoscopic findings can make the diagnosis of nasal polyps. Plain X-rays are insensitive but may show opacification of the affected sinuses. A CT scan is crucial if surgical treatment is required. However, it should not be measured as the primary investigation in the diagnosis of the condition, except where there are unilateral signs and symptoms or other sinister features, but rather validates history and endoscopic findings after failure of medical therapy. CT scan will show the extent of nasal polyps and anatomical variations. In unilateral cases of nasal polyps, a magnetic resonance imaging (MRI) may aid diagnosis, particularly to rule out serious conditions [1].

The management of nasal polyposis can be both medical and surgical. Topical corticosteroids are drug of choice as they reduce the size of the polyp and improve nasal breathing and prevent recurrence. In patients who do not response to medical therapy or have large-sized polyps, functional endoscopic sinus surgery (FESS) is used to perform a polypectomy [3].

CONCLUSION

From the study we can conclude that the nasal obstruction and nasal discharge was the most common complaint present with the patient. Nasal polyp was more common in males and in the middle age patients. Recurrent nasal infections for duration of more than 1 year were the most common risk factor. The other risk factors can be allergy, asthma, etc. There is more scope for further studies of nasal polyp in this region for better identification of risk factors, prevention and cure of the patients.

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