

Nasal Polyposis: An Experience in Mid and Far Western Region of Nepal

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ABSTRACT

Background: Nasal polyposis is an unpleasant disease in the developing countries which severely interferes with quality of life but still there is a lack of data on nasal polyposis in Mid and Far Western Region of Nepal. **Aim of study:** The aim of this hospital based study was to find out the distribution, patterns, presentations and management of nasal polyposis in Mid and Far Western Region of Nepal with a view to improve our understanding of its clinical and epidemiological characteristics. **Methods:** This prospective descriptive study was conducted from January 2015 to June 2016 in 80 patients diagnosed clinically as nasal polyposis, in the department of otorhinolaryngology, Nepalgunj Medical College Teaching Hospital, Kohalpur. **Results:** The most common age group affected in the study was comparatively younger ranging from 10-20 yrs. Ethmoidal Polyp were more frequent than antrochoanal polyp (56.25% vs 43.75%). Antrochoanal polyp were more common among the younger age groups 10-20 yrs (30%) where as the ethmoidal polyp were more common among higher age group. All antrochoanal polyps (100%) were unilateral while majority of the ethmoidal polyps (89%) were bilateral. The main presenting clinical features were nasal obstruction (100%), nasal discharge (93.75%), sneezing (72.5%) and headache (40%). **Conclusion:** Nasal polyposis is common in Mid and Far western region of Nepal. Ethmoidal polyps are more common than antrochoanal polyps and are usually bilateral. Antrochoanal polyps are unilateral and mostly present in 10-20 yrs age group patients. Patients usually present late when the polyps are large.

Key words: Antrochoanal polyp, ethmoidal polyp, nasal polyposis, Nepal.

INTRODUCTION

Nasal polyposis are outgrowths of nasal mucosa which are smooth, semi translucent, gelatinous and pale mass present in the nasal cavity, mainly situated in the middle meatus, originating from mucous membrane of the ostiomeatal complex, probably because of release of pro inflammatory cytokines from epithelial cells as a result of contact between two surfaces of mucosa at this narrow region. Nasal polyposis despite its easy diagnosis, is a challenge for otorhinolaryngologist because of its poorly understood etiopathogenesis, poor impact of therapeutic intervention and frequent recurrences. It is a multifactorial condition which is often associated with many diseases and pathogenic disorders, such as allergy, infection, allergic fungal sinusitis, cystic fibrosis, asthma, and aspirin intolerance¹.

The incidence of nasal polyposis (NP) is around 4% in the general population². Adults are predominantly affected, usually patients older than 20 yrs, and are uncommon in children under 10 yrs. Male are commonly affected with M: F ratio of 2:1³. Therapy for NP involves a combination of observation, medical,

and surgical treatments depending on individual case assessment. The aims of treatment are to eliminate or significantly reduce the size of the NP resulting in relief of nasal obstruction, improvement in sinus drainage, restoration of olfaction and taste. In addition to surgical treatment supplementary medical treatment is always necessary to prevent recurrence⁴.

MATERIAL AND METHOD

This was a prospective descriptive study, conducted from January 2015 to June 2016 in the department of otorhinolaryngology, Nepalgunj Medical College Teaching Hospital, Kohalpur. Among the 21,250 cases presented in our OPD during this period 80 patients were diagnosed clinically and via nasal endoscopy as nasal polyposis and were taken as study group. When required imaging studies were done. Demographic Profile of the patient and clinical presentation of the disease were assessed. Endoscopic grading of polyp was done with system proposed by Johansen et al, 1993⁵. Classification of polyp according to the site was done and their occurrence in different age groups were compared.

All the patients with Johansen Score 2 or more who didn't respond to medical therapy underwent surgery either endoscopic polypectomy or functional endoscopic sinus surgery (FESS). Histopathological examination was done in all cases.

RESULTS

Demographic Profile: Total patients in the OPD were 21,250 among whom 80 patients were diagnosed as nasal polyposis. The incidence of the disease thus calculated was 376/100,000.

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The mean age of the patient was 36.03 yrs. with the minimum and maximum age of 8 and 68 yrs. respectively. The most common age group affected in the study was comparatively younger ranging from 10-20 yrs. figure 1. The present study shows male preponderance, Male: Female = 46 (57.5%): 34 (42.5%).

Type of polyp: Antrochoanal polyp were more common among the younger age groups 10-20 yrs. 24(30%) where as the ethmoidal polyp are more common among thereafter.

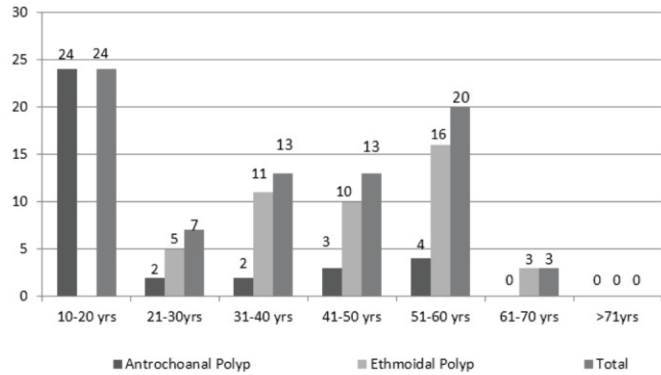


Figure 1: Correlation between the Age of patients with Type of polyp

Among the 80 cases, 35(43.75%) were antrochoanal polyp and 45(56.25%) ethmoidal polyp as shown in table I. All antrochoanal polyps were unilateral while majority of the ethmoidal polyps were bilateral.

Clinical features: The main presenting clinical features were nasal obstruction 80(100%), nasal discharge 75(93.75%), sneezing 58(72.5%) and headache 32 (40%).

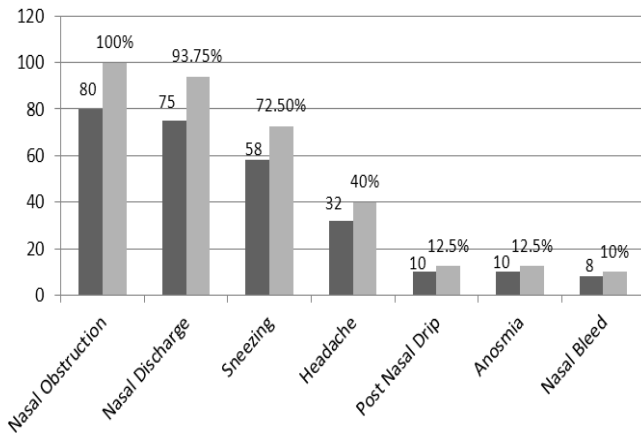


Figure 2: Distribution based on symptoms of patients

Diagnosis	No. of Cases (%)	Left (%)	Right (%)	B/L(%)
Antrochoanal polyp	35(43.75%)	19(23.75)	16(20)	-
Ethmoidal polyp	45(56.25%)	3(3.75)	2(2.5)	40(50)

Table I: Distribution of cases

Staging Of Polyp: The size and location of polyps were confirmed by doing nasal endoscopy. Majority of the cases presented with stage 2 and 3 polyposis (Figure 3).

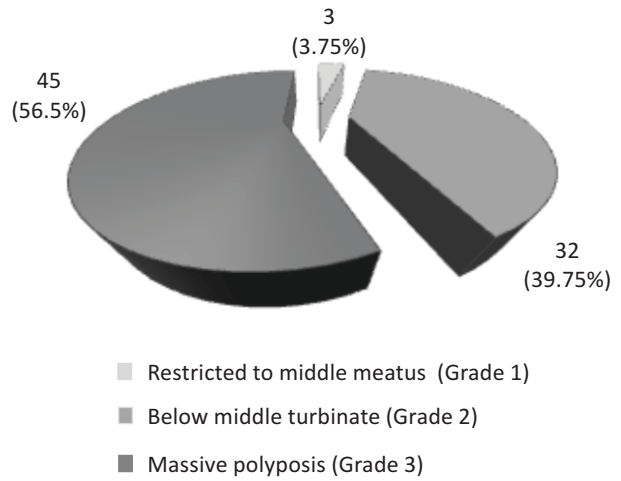


Figure 3: Endoscopic staging of Nasal Polyp

Histopathological examination revealed 5(6.25%) as inverted papilloma, 8(10%) as fungal polyposis and 67(83.75%) diagnosed as nasal polyposis.

Nasal Polyposis	67(83.75%)
Fungal Polyposis	8(10%)
Inverted Papilloma	5(6.25%)

Table II: Histopathological Findings

DISCUSSION

Nasal polyposis is the most common intranasal mass seen in clinical practice. Its rarity in children and propensity for recurrence are reaffirmed. Although, recurrence is a major prognostic challenge, nasal polyp does not exhibit malignant transformation⁶.

Many proposed theories consider that nasal polyps are a consequence of conditions which cause chronic inflammation in the nose and nasal sinuses characterized by stromal edema and variable cellular infiltrate⁷. However, the etiology of nasal polyposis is not known clearly⁸. It was previously assumed that allergy is the predisposing factor for nasal polyps because the symptoms of watery rhinorrhea and mucosal swelling were

present in both conditions and were associated with an abundance of eosinophils in the nasal secretions⁹.

In our study nasal obstruction was the chief symptom present in 100% cases. It was followed by nasal discharge 93.75%, sneezing 72.5% and headache in 40% cases. A similar findings were observed in a study made by O.A Ogunleye and A. J. Fasunla where the nasal obstruction, nasal discharge and sneezing in nasal polyposis were 95%, 81% and 59% respectively¹⁰.

Male preponderance was seen in our study (M:F= 1.5:1). The mean age in our study was 36 years and most of our patient had ethmoidal polyp (56.25%). It is comparable to the study done by Hemant Chopra in 2008 where the mean age was 38.08 years¹¹.

In the present study Antrochoanal Polyps 30% were more common in younger age groups of 10yrs-20yrs whereas ethmoidal polyps were more frequent thereafter. Affection of nasal polyposis in younger patients could be due to the fact that they are the most active and exposed to various allergens due to their outdoor activities. In our study patients of nasal polyposis in mid and far Western region of Nepal presented in the hospital when the polyp is large (Score 3:2:1= 56.25%:40%:3.75%) as classified according to johansen scoring.

The diagnosis of nasal polyposis is usually made on clinical grounds whereas histopathologically the findings may differ¹². In a study done in Malayasia by Irfan M and Shamim AK in 2009 showed that majority of the histological reports are inflammatory nasal polyp (93.6%) and other varieties of benign nasal mass (5.3%). However, one specimen was noted to be malignant (1.1%)¹³. Similarly in our study 6.25% cases turned out to be inverted papilloma on histological reports.

CONCLUSION

This study shows that nasal polyposis is common in Mid and Far Western region of Nepal and has male preponderance. This study also shows that, in this region antrochoanal polyps are more common in younger age groups of 10-20 years and are unilateral but ethmoidal polyps are more common thereafter and are mostly bilateral. Here the patients have nasal obstruction as the most common complain followed by other symptoms like nasal discharge, sneezing, headache etc. Patients present to the hospital when the polyps are large enough to pass beyond middle meatus.

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