ORIGINAL ARTICLE

Comparative Study of Recurrent Nasal Polyps in various treatment modalities

ATHAR ADNAN UPPAL, GHAZI MAHMOOD, ABDUR REHMAN

ABSTRACT

Aim: Comparative Study of Recurrent Nasal polyps in various treatment modalities.
Study design: Comparative, retrospective, descriptive.
Place and duration of study: The study was conducted at Fatima Memorial Medical College, Lahore from January 2014 to March 2015.
Methods: The study was conducted in 30 patients over one year period in ENT OPD of Fatima Memorial Hospital Lahore. A questionnaire was filled for every patient to record history of disease, history of asthma, any drug sensitivity, family history of nasal polyps, asthma and nasal allergy. Previous surgical treatment modalities either simple I/N polypectomy, or external ethmoidectomy and number of recurrences were noted. Thorough ENT examination and investigations were carried out
Results: There was predominance of male patients (77%). Previously the patients had simple intranasal polypectomy (93%), external ethmoidectomy (7%).Recurrence was treated with external ethmoidectomy with topical steroidal spray for three month period of time.
Conclusion: (1).Recurrent nasal polypi form a small proportion of total ENT admission (2).Nasal polypi are rare occurrence under the age of 16 years and when they do occur in a child , the patient should be investigated for possibility of cystic fibrosis.
Keywords: Nasal polyp, recurrence, ethmoidectomy, popypectomy

INTRODUCTION

The word polyp which is originally Greek has under gone latinization and means (poly+pous), many footed. Nasal polyp is defined as pearly white, painless, prolapsed pedunculated parts of nasal mucosa. They are unique in composition. Tomes had written over these benign growths for centuries, from ancient India when polyps as entity were recognized through the era of Hippocrates. Hippocrates (460-370BC) devised unique method of removing the polyps by passing a string through the nose in to the nasopharynx. To this string a sponge was attached and then it was pulled out through the nose removing the polyps before it[12]. Since then we have come a long way where mechanized power tools such as microdebriders are used to clear the polyps under direct vision. Pirsigeta noticed a skull from the 17th century with round pyriform apertures and enlarged nasomaxillary bone presumed to be due to nasal polyps. They presented some medical evidence from the 17th century which shows that nasal polyps were a known entity three hundred years ago. Kikot and Hirade[18] observed that whatever be the cause of nasal polyposis, the initial phase of polyp formation is represented by increased exudation from blood vessels, odema of lamina propria and bulging of nasal mucosa.

Department of ENT, Fatima Memorial Hospital College of Medicine & Dentistry, Lahore
Correspondence to Dr. Athar Adnan Uppal, Assistant Professor Email: Email: adnanopal@hotmail.com Cell: 03338765747

PATIENTS &METHODS

The study was conducted in 30 patients over one year period in ENT OPD Fatima Memorial Hospital Lahore. A questionnaire was filled for every patient to record history of disease, history of asthma, any drug sensitivity, and family history of nasal polyps, asthma and nasal allergy. Previous surgical treatment modalities either simple I/N polypectomy, or external ethemoidectomy and number of recurrences were noted. Thorough ENT examination and relevant investigations were carried out.

RESULTS

A total of 30 patients with clinical diagnosis of recurrent nasal polyps were included in this study. Age distribution reveals a marked preponderance of adult patients. Majority of the patients were above 20 years of age (Table 1). There was a male preponderance 23(77%) and female were 7(23%) (Table 2). In my study 21 patients (70%) were urban dwellers compared to 9 patients (30%) who lived in rural areas. Most of the patients were educated to some extent, only three (3%) patients were completely uneducated and three (10%) were regular smokers. Seasonal variation was also were also noticeable in the recurrent nasal polyps. Though the patients with the disease came throughout the year,

the number of cases increased in winter season and months in which atmosphere was humid and hot. Six patients (20%) had family history of allergy. Of the sample 6 patients (20%) had family history of asthma and remaining 2(7%) in 2nd degree relatives had history of nasal polyps. Family history of nasal polyps was also present in 2 patients (7%) (Table 3). In my study intranasal polypectomy was done in 17 out of 30 patients(57%) and the remaining 13 patients (43%) underwent external ethmoidectomy plus Caldwell Luc procedure (Table 4) patients underwent treatment were regularly followed up at monthly intervals for up to 6 months. In early post operative period minor complications were found like nasal crusting in all patients (100%) nasal synache in 12 cases (40%) and nasal discharge in 16 subjects (53%).Twelve out 17 patients (70%) came with recurrence with in 6 month. This recurrence was found in those cases in which intranasal polypectomy was done and there was no recurrence after external ethmoidectomy (Table 5).

Table 1: Age incidence with recurrent nasal polyps (n=30)

Age group in years	n	%age
11-20	11	37
21-30	6	20
31-40	7	23
41-50	2	7
51-60	3	10
61-70	1	3

Table-2: Sex Distribution

Gender	n
Male	77%
Female	23%

Table 3: Incidence of family history in case of recurrent nasal polyps.

Family History	n	%age
Allergy	6	20
Asthma	6	20
Nasal polyps	2	6

Table 4: Various surgical treatment

Surgical treatment	n	%age
I/N polypectomy	17	57
External ethmoidectomy	13	43

Table -5 Recurrence rate in various treatment modalities

Treatment	n	%age
Intranasal polypectomy	12	70
External ethmoidectomy	-	-

DISCUSSION

The importance of the subject nasal polypi is stressed by the fact that a large number of a patients who came with the disease have already gone through various surgical procedures, as one of the patients who was included in the study had gone through four times. This study shows that recurrent nasal polypi are commonest in adult age group. The two main theories in relation with the pathogenesis of nasal polypi are infective and allergic but there are other theories too- so a single etiology could not be documented. In my study 30 cases were enrolled which were admitted throughout patient department in ENT ward, Fatima Memorial hospital Lahore. The male to female ratio was in the range of 3.3:1 which is very near to international statistic of 2:1 to 4:1[3].Literature mentions that between 1in 1000 in 20 in 1000 of adult population would have nasal polypi once or more in their life time[18].The male predominance was 68%[19]. Which is very near to our study in which male predominance was 77%.My patients were having mean age of 31 years and most of the patients were in the range of 11-40 years and no patients was before 10 years of age so work up of cystic fibrosis was not made. But in one case who was presented with recurrent nasal polyps with proptosis was previously investigated for cystic fibrosis when he was admitted for recurrent nasal polypi. Smoking was found in only 10% of the patients so it does not seem to be an etiological factor for recurrent nasal polypi. Most of my patients (70%) belong to urban population and 30% of the patients belonged to rural population. The relationship with occupation could not be found as it varied from patient to patient. As patients of recurrent nasal polypi present through the year but number of cases increased in winter season. In my study 57% cases presented from November to April as compared to local study in which 60% were presented from November to April[19]..The international literature shows complete loss of smell but exact percentage is not mentioned[20,21]. According to international study the patients who unable to smell are more prone to recurrence[20]. In my study (17%) of subjects had past history of asthma. (3.3%) patients were asthmatic since childhood and (13%) patients were having asthmatic attacks late in adulthood. If we compare our findings to international study by Drake Lee et al(2014) who reported an incidence of asthma in cases of nasal polyposis in range of 28% and 3.5% patients had childhood asthma and 24.5% patients had late onset of asthma that showed late onset asthma was more common in polyp patients. Regarding the recurrence of surgical treatment 66% patients presented with first recurrence and 30% patients were presented with third or more recurrences. This data corresponds to the international data available regarding recurrences. Drake Lee found that patients with asthma suffered more severe recurrences[3]. In our study 7% of subjects found to be Aspirin intolerance and 3% of these were having asthmatic attacks. Patients with

aspirin hypersensitivity, asthma and nasal polyps are well recognized subgroup[20]. It occurs in 5-8% of patients so 3% of patients belonged to this group.

Family history of allergy was found in (20%) patients and of asthma in other 20% .The parents of the most patients had history of asthma, one of them having history of tuberculosis. Family history of nasal polyps was found in 7% cases. A total of 30 patients with clinical diagnosis of recurrent nasal polypi were included in this study. Majority of the patients were having bilateral disease but a few patients have unilateral disease with proptosis. Longstanding nasal polypi

Become extensive and advance to contagious structures and hence cause proptosis and hypertelorism. Surgery was planned in all patients and surgical technique was decided according to clinical assessment and investigations. In cases of simple recurrent nasal polypi, simple intranasal polypectomy was performed in (57%) subjects and external ethmoidectomy was done in (43%) subjects with chronic ethmoiditis, hypertelorism or proptosis. Patients would be hospitalized for variable period of time. All the patients had regular follow up visits with monthly intervals for 6 months. In the postoperative period topical nasal steroid spray was given for at least 2 months. Antihistamines were used to treat symptoms like rhinorrhoea and congestion. Rate of recurrence is variable because several factors are associated with recurrence like younger age, asthmatics along with nasal pathology, allergy and incomplete surgery. Recurrence rate after simple nasal polypectomy was 70% and recurrence after external ethmoidectomy 0%. So external ethmoidectomy is the final court of appeal with almost 100% results. In the international literature the recurrence rate after; intra nasal polypectomy was 40% and after external ethmoidectomy it was 3.3%.

CONCLUSION

1. Recurrent nasal polypi form a small proportion of total ENT admission
2. Nasal polypi are rare occurrence under the age of 16 years and when they do occur in a child, the patient should be investigated for possibility of cystic fibrosis.
3. Recurrence of nasal polypi is one of the major problem in the management of the disease. Features associated with recurrence are: (a) Youger age of the patient. (b) Long history of nasal complaint e.g., rhinitis, DNS, Allergy. (d) Aspirin hypersensitivity. (e) Asthma in females has association with more recurrences.(f) Ignoring the treatment of the cause. (g) .Type surgical treatment is also important.(h) Regular follow up should be done and post operative local steroid prescribed for longer period of time.

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