

Clinical study of Sino nasal polyposis - Our experience

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ABSTRACT Introduction:- Nasal polyposis is regarded as one form of chronic inflammation in the nose and sinuses as part of the spectrum of chronic rhino sinusitis. The management of nasal polyposis has been the topic of frequent controversial debates for many decades .Management of nasal polyp should be primarily based on a medical approach to be completed by surgical procedures. In this present study we are relating our experience of surgical management of nasal polyposis at government general hospital Kurnool. Materials & Methods: This is a prospective study of sinonasal polyposis who presented with nasal obstruction/discharge in ENT opd in government general hospital kurnool from June 2013 to May 2015(2 years). Results - Most of cases are diagnosed with Antrochoanal polyp followed by Ethmoidal polyp. The complication rate was less. In 3 cases there was bleeding during surgery and 2 cases were postoperatively. There is less recurrence rate of nasal polyposis in our study i.e 5%. Conclusions: Thus this study substantiated endoscopic management of nasal polyposis.

Introduction

Nasal polyposis is the most common chronic disease affecting the mucous membrane of nasal cavities and paranasal sinuses and it's a frequent indication for the surgical intervention in the nose and paranasal sinuses¹. Nasal polyposis have uncertain etiology and may be linked to chronic inflammation, allergy, autonomic nervous system dysfunction and genetic predisposition². Conventionally nasal polyps are treated by nasal polypectomy with avulsion technique in children and by Caldwell Luc's operation in adult. Functional endoscopic sinus surgery is minimally invasive procedure that uses an endoscope to improve ventilation and drainage in addition to removal of polyp³. The extent of surgery varies according to the extent of disease and surgeons individual practice. Advantages are claimed over conventional surgery permitting a better view of the surgical field a more precise and thorough clearance of the inflammatory change, fewer complications and lower recurrence rate⁴. The propensity of polyps to recur after various methods of treatment made us to attempt to test efficacy of endoscopic surgery to minimize complications & prevent recurrence of nasal polyps. Thus the present study was taken up with aim to identify the type and origin of nasal polyps. complete removal of the nasal polyps and to establish natural drainage of the sinuses.

Materials and methods

Present study was conducted in amongst 100 patients diagnosed & treated in the Department of Otorhinolaryngology, Kurnool Medical College Kurnool. Patients were selected based on clinical & diagnostic findings of nasal polyp in all age groups and both sexes. Selected patients were evaluated by complete examinations according to a defined proforma. Detailed history with thorough clinical examination along with routine blood investigations like Hb%,TC,DC,ESR,CT,BT, Urine for albumin,sugarµsco py,HIV,HbSAg were performed. Radiological investigations like x-ray paranasal sinus and CT scans were taken.Prophylactic antibiotics to all patients starting one day prior to surgery for five days. Antrachoanal polyps are treated by endoscopic polypectomy and middle meatal antrostomy. Ethmoidal polyps are treated by endoscopic polypectomy ,osteo meatal complex,anterior group of ethmoids and posterior group of ethmoids clearance. The patients are discharged after two days of surgery and was strictly called for follow-up on the 1st week,1st month,4th month and 6th month from the date of surgery. On follow up patients are examined with endoscope and post operative complications are noted.

Results

Nasal polyps are seen in both sexes,all ages,and average onset is 2^{nd} and 3^{rd} decade of life. The most common symptom noted was nasal obstruction (100%) and other symptoms were allergy (59%),nasal discharge (35%) mass in the throat (11%),headache (8%), anosmia(2%). There were total 5 complications of which 3 were with intraoperative bleeding and 2 patients were presented with synechiae. Postoperative patients were followed up at 1^{st} , 4^{th} and 6^{th} weeks. 3 out of 67 antrochoanal polyps and 2 out of 33 cases of ethmoidal polyposis cases recurrence noted and these 5 recurrence cases are not included in the present study.

AGE DISTRIBUTION OF THE PATIENTS

AGE GROUP	MALE	FEMALE	TOTAL
<10 YEARS	5	4	9
11-20 YEARS	16	20	36
21-30 YEARS	12	18	30
31-40 YEARS	5	8	13
41-50 YEARS	4	7	11
51-60 YEARS	0	1	1
61-70 YEARS	0	1	1
TOTAL	42	58	100

SEX DISTRIBUTION OF THE PATIENTS

	Antrochonal	Ethmoidal	Total
Male	32	10	42
Female	35	23	58
Total	67	33	100

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SURGERY DONE FOR ANTROCHOANAL POLYP

Treatment	No of cases
Endoscopic polypectomy with middle	67

SURGERY DONE FOR ETHMOIDAL POLYP

Treatment	No of cases
Endoscopic polypectomy + Middle meatal antros- tomy + clearance of osteomeatal complex	10
Endoscopic polypectomy + Middle meatal antrostomy + clearance of osteomeatal complex, clearance of anterior group of ethmoids	10
Endoscopic polypectomy + Middle meatal antros- tomy + clearance of osteomeatal complex, clear- ance of anterior & posterior group of ethmoids	10
Endoscopic polypectomy + clearance of anterior group of ethmoids	3

COMPLICATIONS

Complications	No of cases
Synichae	2
Bleeding	3

Recurrence

Polyp type	Total cases operated	Recurrence
Antro choanal polyp	67	3
Ethmoidal polyp	33	2

Discussion

Endoscopic sinus surgery was described by Stammberger in 1985 and in the same year Kennedy coined the term functional endoscopic sinus surgery. The concept of FESS is mucosal sparing surgery⁵. Sino nasal polyposis a chronic inflammatory condition of unknown etiology is often associated with systemic diseases and is characterized by nasal obstruction, decrease in sense of smell, infection and impaired quality of life.

Endoscopy has enhanced the diagnosis and management of sinonasal polyposis. The initial approach is medical management which consists of administration intranasal steroids or short course of steroids. Surgical removal is performed for patients who don't respond to medical management. The purpose of surgery is to restore the nasal physiology by making the nose free from nasal polyps and allowing drainage of infected sinuses. Medical therapy after surgery is essential for preventing recurrence.

Nasal endoscopy provides excellent visualization of polyps, especially of small polyps in the middle meatus. It also shows nasal polyps originating from contact areas in middle meatus and nasal anatomic abnormalities. Culture of the discharge and a biopsy can be performed under endoscopic guidance⁶. In the present study 100 patients were studied from June 2013 to May 2015. They were operated by endoscopic approach.

Age distribution: Polyps are prevalent in both sexes, all ages & in all socioeconomic groups, though average age of onset is 2^{nd} and 3^{rd} decade of life. In a study by R.H.Kamel⁷, the average age of patients who underwent Endoscopic surgery for polyposis was 25 years. In our study the average age of patients who underwent Endoscopic surgery for polyposis is 25.5 yrs ranging from 4 to

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70 years hence the stdy compares well with the former study.

Sex distribution: in the study conducted by Frosini et al⁸ in the university of Florence in 200 cases of nasal polyposis the male and female ratio is 2:1 In the present study male and female distribution ratio is 1:1.38. Slightly female preponderance may be due to low socio-economic state exposed to hot and dusty environment especially due to hormonal changes in women because of the early marriage and pregnancy

Clinical diagnosis: in our study 67 were diagnosed with antrachonal polyps and 33 patients were diagnosed as having ethmoidal polyps. In the Deshmukh KA et al⁹ 20 patients had antrachonal polyp and 17 patients had ethmoidal polyps. The more antrochoanal polyps in the present study could be because of recurrent infection and neglect of the condition due to unaffordability for the treatment.

Site and origin of polyp: In our series most of the patients with antrochoanal polyps and these polyps were seen in accessory ostia, followed by natural ostia of the maxillary sinus. The ethmoidal polyps are originating from anterior & posterior ethmoidal cells and bulla ethmoidalis. In a study by Sema Basak et al¹⁰ the commonest site of polyp was accessory ostia followed by natural ostia in case of antrochoanal polyp.

Surgery: in our study 67 antrochonal polyps were removed by endoscopic polypectomy and middle meatal antrostomy. 33 cases Ethmodial polyps were removed by endoscopic polypectomy and clearance of osteomeatal complex,anterior ethmoidal,posterior ethmoidal cells and bulla ethmoidals.

Complications: the percentage of patients who had complications is 5%. This does not correlates with studies by Kennedy et al¹¹ is 29%. In our study bleeding in 3 cases and 2 cases are postoperative synechiae. There were no other major complications besides bleeding.

Follow up and Recurrence: Of the 100 cases who underwent operation, 97 patients came for regular follow up 1st ,4th week,4th month and 6th month. In our study 40% of the patients were symptoms free during 1st post operative week, 80% of the patients were symptoms free post 4th month and 95% cases were symptoms free 6th month post operatively. Whereas, in the study by Kennedy D12, following the endoscopic surgery, relief of symptoms was seen in 81% of pediatrics and 84% of adult patients. According to Venkatachalam et al¹³, 72% of patients had complete relief of symptoms ,16% had parital and 8% had no relief following endoscopic surgery. Following endoscopic polypectomy we had a recurrence rate of 5% in our patients. This corresponds with the studies by Friedman¹⁴, who report a recurrence rate<20%. Our study recurrence rate 5%(5 cases).

Conclusion

This study demonstrates that the endoscopic management is a safe and efficient technique for treating nasal polyp. The complications are minimal when performed carefully and in our study there was good subjective outcome and minimal recurrence rate. This method gives a fair idea about the site of origin of the nasal polyp which can be utilized for complete removal of the polyp and establishing a natural drainage by performing endoscopic sinus surgery at the same sitting and offer symptomatic relief of the patients, with minimal complications and less chance of recurrence.

References

- Stammberger Heinz, Michel Hawke. Essential of endoscopic sinus surgery 2nd edition, Mosby publications 1993:96
- Luxenburger W,Posch,Berghold, et al.HLA patterns in patients with nasal polyposis.Eur Arch Otorhinolaryngology,2000;257: 137-9.
- Ramalingam R, Ramalingam KK. A hand book of endoscopic sinus surgery, Chennai, india 1998;1:6-7.
- Kennedy DW,Roth M. functional endoscopic sinus surgery ototrhinolaryngology: head and neck surgery.15th edition . willium and Wikins,1996;173-180.
- Rowes-jones JM et al. functional sinus surgery : 5 year followup and results of prospective,randomised stratified double blind, placebo controlled study of postoperative fluticasone propionate aqueous nasal spray Rhinilogy. University hospital Utrecht 2005;43(1):2-10.
- Assanasen P, Naclerio RM. Medical and surgical management of nasal polyps Current Opinion in Otolaryngology & Head and Neck Surgery. Lippincott Williams & Wilkins, Inc 2001; 9:27-36
- Reda Kamel. Endoscopic Transnasal Surgery in Antrochoanal Polyp. Arch Otolaryngol Head Neck Surg 1990; 116:841-843
- P Frosini et al antrochoanal polyp analysis of 200 cases. Acta Otorhinolaryngol Ital. 2009 Feb; 29(1): 21–26.
- Kiran A Deshmukh et al Role of endoscopic surgery in management of nasal polyps. Al Ameen J Med Sci 2013; 6(4):364-368.
- Basak et.al. Surgical approaches to Antrochoanal polyps in Children. International Journal of Pediatric Otorhinolaryngology 1998; 46:197-205.
- 11. Kennedy. Functional Endoscopic Sinus Surgery. Arch Otolaryngology 1985; 3: 643-649.
- 12. Kennedy David. Prognostic Factors, Outcomes and Staging in Ethmoidal Sinus Surgery. Laryngoscope 1992; 102(Supp I): 1-18
- Venkatachalam et.al. Comparative Evaluation of Endoscopic and Conventional Surgical techniques in the Management of Nasal Polyposis. JK Practitioner 1998; (4):295-299.
- 14. William F. Intranasal and Trans-antral Ethmoidectomy-A 20 Year Experience. Laryngoscope