

ORIGINAL RESEARCH**Assessment of cases of chronic sinonasal diseases & nasal polyposis managed with functional endoscopic sinus surgery****¹Dr.SarveshBisaria, ²Dr.AishwaryaBisaria, Dr Bharat Sharma³**¹Senior Specialist, M G Hospital, Banswara, Rajasthan, India²M.B.B.S.³MBBS Intern, NIMS Medical College Jaipur, Rajasthan, India**Correspondence:**

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ABSTRACT

Background:Chronic rhinosinusitis (CRS) affects approximately millions of individuals every year. It is characterized by inflammation of nose and paranasal sinuses, thus becoming one of the most common disorders of the upper airway. The present study was conducted to assess cases of chronic sinonasal diseases & nasal polyposis using functional endoscopic sinus surgery.

Materials & Methods: 72 patients of chronic sinonasal diseases & nasal polyposis of both genders were assessed radiologically as well as endoscopically. All patients underwent functional endoscopic sinus surgery, using the Messerklinger's approach. They were recalled for 6 weeks.

Results: Out of 72 patients, males were 42 and females were 30. Endoscopic findings were DNS in 34, middle turbinate hypertrophy in 18, inferior turbinate hypertrophy in 5, enlarged agger nasi in 6, MPD in middle meatus in 5 and edematous/polypoidal up in 4 cases. The difference was significant ($P < 0.05$). Clinical features were nasal discharge in 62, nasal obstruction in 48, sneezing in 57, headache in 61, post nasal drip in 35 and epistaxis in 29. The difference was significant ($P < 0.05$).

Conclusion: Chronic rhinosinusitis is common among all people. Functional endoscopic sinus surgery is useful in these patients.

Key words: Chronic rhinosinusitis, functional endoscopic sinus surgery, Polyp

INTRODUCTION

Chronic rhinosinusitis (CRS) affects approximately millions of individuals every year. It is characterized by inflammation of nose and paranasal sinuses, thus becoming one of the most common disorders of the upper airway.¹ It can be classified according to Brazilian guidelines on rhinosinusitis in acute (lasting 4 weeks), sub-acute (duration between 4 and 12 weeks) and chronic (lasting longer than 12 weeks).²

Nasal polyposis (NP) is considered as a subgroup of CRS with an incidence of 4% in general population and 25–30% in patients suffering from CRS.³ Though studies in literature suggest that patients of NP as a distinct entity but the present investigation and treatment modality do not distinguish CRS from NP. It is a multifactorial disease which has been extensively studied but its variable presentations, aetiology and exact pathogenesis is still a matter of debate.⁴ CRS has been related to bacterial infection, allergy, biofilms and recently superantigens. The symptom manifestation of CRS is varied, hence clinical evaluation by major and minor criteria, assisted by nasal endoscopy and CT scan are the usual methods of diagnosis and management.⁵

Functional endoscopic sinus surgery (FESS) confers the advantage of being minimally invasive and allows for sinus air cells and sinus ostia to be opened under direct visualization. The primary goal of FESS is to return the mucociliary drainage of the sinuses to normal function.⁶The present study was conducted to assess cases of chronic sinonasal diseases & nasal polyposis using functional endoscopic sinus surgery.

MATERIALS & METHODS

The present study comprised of 72 patients of chronic sinonasal diseases & nasal polyposis of both genders. The consent was obtained from all enrolled patients.

Data such as name, age, gender etc. was recorded. A thorough examination was carried by expert ENT surgeon. All the patients were assessed radiologically as well as endoscopically. All patients underwent functional endoscopic sinus surgery, using the Messerklinger's approach. They were recalled for 6 weeks. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 72		
Gender	Males	Females
Number	42	30

Table I shows that out of 72 patients, males were 42 and females were 30.

Table II Endoscopic Findings

Findings	Number	P value
DNS	34	0.05
Middle Turbinate Hypertrophy	18	
Inferior Turbinate Hypertrophy	5	
Enlarged Agger Nasi	6	
Mpd In Middle Meatus	5	
Edematous/Polypoidal Up	4	

Table II, graph I shows that endoscopic findings were DNS in 34, middle turbinate hypertrophy in 18, inferior turbinate hypertrophy in 5, enlarged agger nasi in 6, Mpd in middle meatus in 5 and edematous/polypoidal up in 4 cases. The difference was significant (P < 0.05).

Graph I Endoscopic Findings

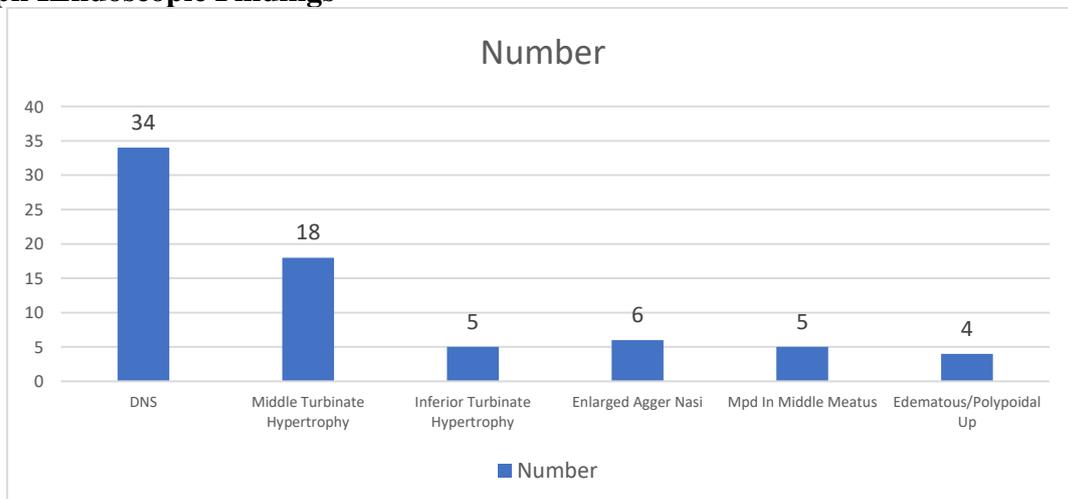
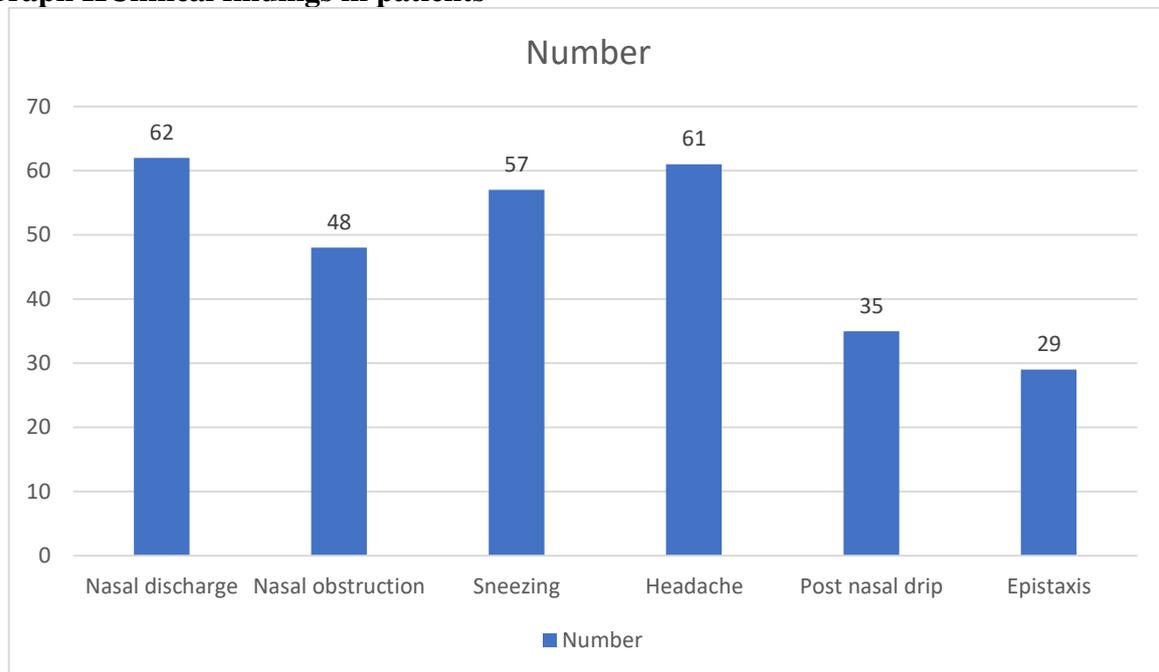


Table III Clinical findings in patients

Clinical findings	Number	P value
Nasal discharge	62	0.81
Nasal obstruction	48	
Sneezing	57	
Headache	61	
Post nasal drip	35	
Epistaxis	29	

Table III, graph II shows that clinical features were nasal discharge in 62, nasal obstruction in 48, sneezing in 57, headache in 61, post nasal drip in 35 and epistaxis in 29. The difference was significant ($P < 0.05$).

Graph II Clinical findings in patients

DISCUSSION

Nasal polyps (NP) are mucosal sacs containing oedema, fibrous tissue, vessels, inflammatory cells and glands.⁷ NP are common presentations seen in patients of CRS and are considered to be associated with more severe forms of disease with poor post treatment outcome.⁸ The presence of ballooning of mucosa into polyps and also recurrence of polyps after surgery when aeration is improved has led to the thought that NP is a separate entity.⁹ The present study was conducted to assess cases of chronic sinonasal diseases & nasal polyposis using functional endoscopic sinus surgery.

We found that out of 72 patients, males were 42 and females were 30. Endoscopic findings were DNS in 34, middle turbinate hypertrophy in 18, inferior turbinate hypertrophy in 5, enlarged agger nasi in 6, Mpd in middle meatus in 5 and edematous/polypoidal up in 4 cases. Bajoliya et al¹⁰ selected 80 patients of chronic sinonasal diseases & nasal polyposis attending the department of otorhinolaryngology. All patients underwent functional endoscopic sinus surgery, using the Messerklinger's approach. The overall result revealed that 85.49% patients considered themselves asymptomatic or improved following surgery. No major complication directly related to FESS occurred in this series. The important finding

wereosteomeatal complex obstruction seen in 88.75%, polyp in nose in 46.25% of cases. Radiological evaluation done by coronal section (axial & sagittal if needed) CT scanning revealed the maxillary sinus most common site of mucosal involvement 76.25% followed by anterior ethmoid sinus in 53.75% cases. Frontal and sphenoid sinuses were involved in 26.25% and 15% cases respectively.

We observed that clinical features were nasal discharge in 62, nasal obstruction in 48, sneezing in 57, headache in 61, post nasal drip in 35 and epistaxis in 29. Nair et al¹¹ in their study 90 patients of chronic rhinosinusitis who were classified into two groups depending on presence and absence of nasal polyps. The two groups were evaluated using subjective (patient complaints) and objective (computed tomography scan and endoscopy scores) criteria. Preoperative data were compared with data obtained 12 months post endoscopic sinus surgery. The study included 38 patients of chronic rhinosinusitis and 52 patients of nasal polyps. The patients of nasal polyp group presented with increased severity of symptoms of nasal blockage, nasal discharge and reduced sense of smell as compared to the chronic rhinosinusitis group who had significantly higher presentation of headache and facial pain. The preoperative CT scan revealed significantly higher bilateral disease with increased involvement of multiple sinuses in nasal polyp group. Post endoscopic sinus surgery both the groups showed significant improvement in their symptoms with the nasal polyp group demonstrating reduction in improvement on 1 year follow up. In this study they have found the patients with chronic rhinosinusitis and nasal polyp have varied severity of symptoms with the nasal polyp group having higher nasal symptoms and increased severity as compared to chronic rhinosinusitis group.

Toros et al¹² in their study of symptoms have observed higher symptom scores and worse objective findings in patients of NP. Deal and Kountakis¹³ have described a statistically higher improvement among CRS patients as compared to NP patients. Smith et al¹⁴ in a study of preoperative factors that predict surgical outcome and Poetker et al¹⁵ on the outcomes of ESS on chronic rhinosinusitis with NP have found better preoperative CSS scores in patients with NP resulting in a positive impact on the QOL. Other authors have described NP to have a significant negative impact on patients with more severe symptoms and less improvement after operative interventions.^{16,17}

CONCLUSION

Authors found that Chronic rhinosinusitis is common among all people. Functional endoscopic sinus surgery is useful in these patients.

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