

ORIGINAL ARTICLE

The Effectiveness Of Functional Endoscopic Sinus Surgery In The Treatment Of Chronic Rhinosinusitis: A Retrospective Study

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ABSTRACT

Introduction: Chronic rhinosinusitis (CRS) is a common disease that affects the life style of many patients. The aim of the study was to evaluate the symptom relief by functional endoscopic sinus surgery (FESS) and to also confirm that FESS is the modality of treatment in patients with refractory CRS and nasal polyposis.

Materials and Method: Retrospective study over a period of 1 years (feb, 2014 to feb, 2015) 80 patients with or without nasal polyposis have been cared for in the department of ENT AND HEAD AND NECK SURGERY, UPRIMS & R, SAIFAI, ETAWAH (U. P.). the study was proceed only after the approval of institute ethical committee . Patients were assessed for CRS symptoms preoperatively and postoperatively using clinical examination. Most common symptom of CRS was nasal obstruction followed by headache. Patients also complained of anosmia, facial pressure, postnasal drip, purulent nasal discharge, halitosis, cough, earache. Post-operative follow up of 3months there was improvement in the symptoms.

Results: All minor symptoms had improved 100%. Nasal obstruction responded best, next followed by facial pain and anosmia (all symptoms P value<0.001). An overall improvement of 86.66% was noted.

Conclusion: FESS is a effective tool for chronic rhinosinusitis because of less chance of hospital stay and good result post operatively.

Keywords: Chronic rhinosinusitis, Functional endoscopic sinus surgery, Nasal obstruction.

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INTRODUCTION

Functional endoscopic sinus surgery is a treatment of choice in clinically challenging chronic rhinosinusitis (CRS) and in nasal polyposis. CRS not only causes significant physical symptoms but also results in substantial functional and emotional impairment. Endoscopic sinus surgery has become excellent subjective and objective outcome with a very low complication rate. After FESS surgery remove nasal obstruction and preserve the mucociliary function and hence improved patency of osteomeatal-complex.¹ Aim of our study was to evaluate the symptom relief by functional endoscopic sinus surgery (FESS) and to also confirm that whether FESS is the modality of treatment in patients with refractory CRS and nasal polyposis.

MATERIALS AND METHODS

Our study includes of 80 cases with chronic rhinosinusitis admitted in ENT ward (with and without polyposis), not responding to medical treatment for at least 3 months, who underwent FESS between feb 2014 to feb 2015 the study was proceed only after the approval of institute ethical committee. Of these cases 55 were CRS without polyposis and 25 were CRS with

polyposis. Revision and recurrent cases were excluded from the study. Diagnosis of both the groups was based on clinical and radiological methods.² Post-operatively merocele were used for anterior nasal packing, which was removed 24 h later. The patients were discharged on the 2nd or 3rd postoperative day. Postoperatively all the patients were instructed to use alkaline nasal douching till the nasal crusting reduced (2–3 weeks), and were reviewed at 7th day, 1 month, and 3 month. At each visit the patients symptoms were assessed by diagnostic nasal endoscopy.

STATISTICAL ANALYSIS

Data were analyzed using SPSS version 21. Results were made using chi square test.

RESULTS

80 patients were enrolled in the study, of which 65 were men and 15 were women. Patients belonged to a wide range of age group between 18 and 60 years. Duration of symptoms were anywhere between 6 months to 15 years. All cases had bilateral disease that had undergone extensive medical management before being considered for surgery. The most commonest symptom was, nasal block (N = 75,93.75%), followed by anosmia (N = 56,70%), facial pressure (N = 50,62.50%), postnasal drip (N = 40, 50%), headache (N = 40,50%), nasal discharge (N=30,37.5%), fatigue (N= 22,27.50%), halitosis (N = 19,23.75%), dry cough (N = 11,13.75%), dental pain (N = 8,10%) (Table 1). Most of the patients in our study have nasal obstruction followed by anosmia, facial pain and PND. Every patient's were planned for diagnostic nasal endoscopy and after that for confirmation and to

know the extent of pathology do the non contrast computerized tomography scan nose and paranasal sinuses both axial and coronal cut. Routine and special blood investigations were done and planned for surgery. Post-operative period was uneventful and all the patients were discharged after 2-3 days. Postoperatively result at the end of 3 months was high (Table 2) (84.66%, P=0.001).

DISCUSSION

Chronic Rhinosinusitis has become one of the major diseases that affect most of the patients in many parts of the world. Most of them respond well with medical therapy. Those who fail to respond to medical treatment can be managed with FESS.³ 86.66% of our patients in this study were symptom free with very good relief at the end of 3 month follow up (P<0.001). In our study only those patients included, who fail to respond to medical treatment. The result of our study are similar to those of other studies which also reported that FESS is a useful technique for many of nasal symptoms like nasal obstruction and rhinorrhea.⁴ Post operatively 90.66% of the nasal obstruction showed improvement. 85.71% with anosmia, 86% with facial pressure/pain, 77.5% with post nasal drip and 76.66% with purulent nasal discharge, showed improvement after surgery at the end of 3 month follow up (Table 2). Headache and Nasal obstruction responded very well. These results are very similar to other study done previously.⁵⁻¹⁵ FESS is a very effective and safe procedure because of it reduced morbidity and cost to the patients.

Symptoms	No symptoms	Mild	Moderate	Severe	%
Facial pain/pressure	30	5	15	30	50 (62.5%)
Nasal block	5	10	25	40	75 (93.75%)
PND	40	12	18	10	40 (50%)
Anosmia	24	8	36	12	56 (70%)
Nasal discharge	50	8	8	14	30 (37.5%)
Headache	40	7	13	20	40 (50%)
Halitosis	61	10	5	4	19 (23.75%)
Dental pain	72	4	1	3	8 (10%)
Fatigue	58	12	6	4	22(27.50%)
Cough (dry)	69	5	2	4	11(13.75%)

Table-1: Preoperative symptom profile

Symptoms	-2	-1	0	1	2	% success
Facial pressure/pain	0	1	6	0	43	86%
Nasal block	0	2	5	0	68	90.66%
PND	0	4	2	3	31	77.5%
Anosmia	0	3	5	0	48	85.71%
Nasal discharge	0	2	4	1	23	76.66%
Headache	0	3	3	2	32	80%
Halitosis	0	0	0	0	19	100%
Dental pain	0	0	0	0	8	100%
Fatigue	0	0	0	5	17	77.27%
Cough (dry)	0	0	0	3	8	72.72%

Table-2: Post-operative symptom profile

CONCLUSION

FESS is an emerging method in the field of ENT and Head and neck surgery and it is a main treatment of CRS. Functional endoscopic sinus surgery (FESS) is highly effective in controlling symptoms of CRS, either with or without nasal polyps. In our study we evaluated subjectively the overall clinical improvement and symptomatic after the procedure. Limitations of surgery include old age, patient not coming for follow-up and also acute infection.

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