International Journal of Otorhinolaryngology and Head and Neck Surgery
Deeba F et al. Int J Otorhinolaryngol Head Neck Surg. 2020 Oct;6(10):1827-1829
http://www.ijorl.com
pISSN 2454-5929 | eISSN 2454-5937

DOI: http://dx.doi.org/10.18203/issn.2454-5929.ijohns20204183

Original Research Article

Evaluation of the quality of life before and after functional endoscopic sinus surgery among patients with nasal polyps by means of SF-36 questionnaire

Farah Deeba, Syed Waseem Abbas*, Ihsan Ali

Department of ENT, Government Medical College Srinagar, Jammu and Kashmir, India

Received: 17 July 2020
Accepted: 17 August 2020

***Correspondence:**
Dr. Syed Waseem Abbas,
E-mail: itz4n@yahoo.com

ABSTRACT

Background: Aim of the study was to evaluate the quality of life before and after FESS among patients with nasal polyps.
Material and Method: This study was done in Government Medical College Srinagar from January 2019 to December 2019 for a period of 12 months. A total of 69 patients with nasal polyposis who underwent FESS were included in the study. They were given a questionnaire SF-36 to be fulfilled preoperatively, 3 months and at 6 months after surgery.
Result: The preoperative SF-36 score was 79.35 and postoperative score was 83.62 at 3 months, 86.88 at 6 months.
Conclusion: SF-36 questionnaire values showed improvement at 3 months and then at 6 months of follow up.

Keywords: Functional Endoscopic Sinus Surgery, SF-36, CRS

INTRODUCTION

Sinonasal pathology is one of the most frequent cause of the disease which impairs quality of life. The most common symptoms of diseases of the nose and paranasal sinuses are nasal obstruction or congestion, anterior and posterior nasal discharge, epistaxsis, hyposmia or anosmia, headache, snoring, facial pain, facial pressure. These symptoms may be due to anatomical obstruction of ostium, septal deviation, concha bullosa, paradoxic middle turbinate, nasal polyps, chronic rhinosinusitis (CRS).[1]

Functional surgical treatment by endoscopic sinus surgery (FESS) is presently the most preferred treatment for CRS.[2,3] and is based on hypothesis that diseased sinonasal mucosa can get reverted if ventilation and drainage are improved, thus restoring mucociliary clearance.[4] In general, patients QOL improves after FESS.

The most widely used instrument for general health and the best example of a "generic" HR-QOL instrument is the Medical Outcome Study Short-form 36-item Health Survey.[5] Disease specific instruments have been shown to be superior to generic health-status instruments when the burden of disease studied is lower than the threshold detected by a generic HR-QOL questionnaire.[6]

METHODS

This prospective hospital-based study was conducted in the Postgraduate Department of Otorhinolaryngology, Head and Neck Surgery, Government SMHS Hospital, Srinagar from January 2019 to December 2019. All patients attending the department were included after fulfilling the inclusion criteria.

Inclusion criteria

Patients who underwent FESS for nasal polyps. Patients aged 18 years or above.

Written informed consent was taken from all the patients. Detailed history was taken and complete ENT examination was done. Non-contrast enhanced computed tomography was done as and when required

In all patient's disease specific quality of life measurement was done using SF-36 scale. This was done on three occasions- preoperatively, 3 months and at 6 months after surgery.

Data was entered in Microsoft Excel spreadsheet. Continuous variables were summarized as mean and standard deviation. Categorical variables were summarized as percentages. Comparison of SF-36 scores before and after rhinologic surgeries were done using Paired 'T' test. Two-sided p values were reported and a $p<0.05$ was considered as statistically significant.

RESULTS

A total of 69 patients underwent FESS in our institution during study period. The SF-36 questionnaire was given pre and post operatively among patients with nasal polyps who met inclusion criteria. SF-36 scale changed from 79.35 pre-operatively to postoperative score of 83.62 at 3 months, 86.88 at 6 months.

Our study included 45 (65.2%) females and 24 (34.7%) males. Females outnumbered the males in our study.

Table 1: SF-36 pre-operative score in patients without any comorbidity (n=69).

Functions	Mean	SD	Min	Max
Physical function	97.66	2.51	95	100
Role function physical	100.0	0.00	100	100
Bodily pain	91.30	9.40	78	100
General health	46.51	11.03	40	65
Vitality	66.35	2.23	65	70
Social function	76.95	11.29	65	88
Role functional emotional	100.00	0.00	100	100
Mental health	59.38	3.78	57	66
Total	79.35	2.98	76.94	84.17

Table 1 shows SF-36 values preoperatively, total as well as sub-scale wise. Role function physical and role functional emotional having 100% preoperative values.

Table 2 shows that SF-36 values at 3 months, total as well as subscale wise. There was mean value of 100 for sub scale, physical function, role functional physical and role functional emotion. All subscales showed significant improvement.

Table 2: SF-36 at 3 months follow up (n=69).

Functions	Mean	SD	Min	Max
Physical function	100.00	0.00	100	100
Role function physical	100.00	0.00	100	100
Bodily pain	97.19	4.52	90	100
General health	63.13	7.72	55	75
Vitality	66.09	6.37	60	75
Social function	78.98	14.73	65	100
Role functional emotional	100.00	0.00	100	100
Mental health	64.02	6.46	60	74
Total	83.62	2.37	81.67	87.22

Table 3: SF-36 at 6 months follow up (n=69).

Functions	Mean	SD	Min	Max
Physical function	100.0	0.0	100	100
Role function physical	100.0	0.0	100	100
Bodily pain	100.0	0.0	100	100
General health	69.22	5.35	60	75
Vitality	69.69	5.89	65	80
Social function	90.23	5.19	88	100
Role functional emotional	100.0	0.00	100	100
Mental health	70.18	4.92	66	77
Total	86.88	1.01	85.97	88.33

Table 3 shows that SF-36 values at 6 months, total as well as subscale wise. There was mean 100 for subscale-physical function, role function physical and role functional emotional. All subscales showed significant improvement.

DISCUSSION

Quality of life (QOL) is an important assessment in clinical interventions. QOL is a subjective evaluation of the effects of a disease or therapeutic effects of its treatment on patient's health and several patients with the same objective conditions may have different QOLs. It includes not only symptoms of the disease but also a wide spectrum of daily life activities such as social and physical activities, practical and emotional problems, and general feeling of patients related to their disease.[7]

In the present study the measurement of General health related quality of life (QOL) was performed using the Short Form-36 Health Survey (SF-36). The SF-36 Health Survey consists of a questionnaire with 36 items organized into several subject areas. Each item represents a scale in itself or part of a scale. The SF-36 Health Survey records eight aspects of subjective health, using different item numbers: Physical functioning (PF-10

items), Role Functioning Physical (RP-4 items), Bodily pain (BP- 2 items), General health (GH-5 items), Vitality (VT- 4 items), Social Functioning (SF-2 items), Role Functional Emotional (RE- 3 items), and Mental Health (MH- 5 items).

In the study General quality of life using SF-36 was seen improved after surgical intervention in all patients with total mean 79.53, 83.62, 86.88 preoperative, at 3 months and at 6 months respectively with p value <0.001.

General HR-QOL using SF-36 showed maximum improvement in sub scales, in general health with preoperative value of 46.51 to postoperative value of 69.22 at 6 months, in social function with preoperative value of 76.95 to postoperative value of 90.23 at 6 months and in mental health with preoperative value of 59.38 to postoperative value of 70.18. Similar results were stated in study conducted by Sahlstrand-Johnson[8] and Soler et al.[2]

CONCLUSION

General health related quality of life measured with SF-36 in patients undergoing nasal surgeries showed improvement, total as well as sub scale wise

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Stankiewicz J, Lal D. Primary Sinus Surgery. In: Flint P, Haughey B, Lund V, Niparko J, Robbins K, Tomas JR, et al. Cummings Otolarygology Head and Neck Surgey Sixth Edition. Philadelphia: Elsevier. 2015;752-82.
2. Soler ZM, Mace J, Smith TL. Symptom based presentation of chronic rhinosinusitis and symptom specific outcomes after endoscopic sinus surgery. Am J Rhinol. 2008;22:297-301.63-76.
3. Garratt A, Scmidt L, Mackintosh A, Fitzpatrick R. Quality of life measurement: bibliographic study of patient assessed health outcome measures. BMJ 2002;324:1417-9
4. Stammberger H, Posawetz W. Functional endoscopic sinus surgery: concept, indications and results of the Messerklinger technique. Eur Arch Otolaryngol. 1990;247.
5. Ware JE Jr, Sherbourne CD. The MOS 36-item short-form health survey (SF-36). I. Conceptual framework and item selection. Med Care. 1992;30:473-83.
6. Gliklich RE, Hilinski JM. Longitudinal sensitivity of generic and specific health measures in chronic sinusitis. Qual Life Res. 1995;4:27-32.
7. Stewart MG, Smith TL, Weaver EM, Witsell DL, Yueh B, Hannley MT et al. Outcomes after nasal septoplasty: results from the Nasal Obstruction Septoplasty Effectiveness (NOSE) Study. Otolaryngol Head Neck Surg. 2004;130:283-90.
8. Sahlstrand JP, Ohlsson B, Ahlner-Elmqvist M. Endoscopic sinus surgery improve quality of life and decrease absenteeism in patients with chronic rhinosinusitis-a multi-centre study From The 10th Symposium of Experimental Rhinology and Immunology of the Nose Stockholm, Sweden. Rhinology.2017;55(3):251-6.

Cite this article as: Deeba F, Syed WA, Ali I**.** Evaluation of the quality of life before and after functional endoscopic sinus surgery among patients with nasal polyps by means of SF-36 questionnaire. Int J Otorhinolaryngol Head Neck Surg 2020;6:1827-9.