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Full Length Research Paper

Quality of life after septal surgery

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To assess the quality of life in patients who have been through the surgical intervention related to nasal septum in ENT department of Abbasi Shaheed Hospital, Karachi. This study was done from January 2008 to August 2008. Case based study, with post-interventional quality of life assessment questionnaire. One hundred patients undergoing nasal septum related surgery, after their full informed and written consent, were included in this study. The age limit was above 18 years and both the sexes were included. They were given a questionnaire (Glasgow benefit inventory score-GBI) to be fulfilled on the first follow up day after a week's time from the day of surgery and then subsequently on the second visit that is, at about two week's time from their first visit and the last one after the lapse of 1 month from the time of second visit. Average score of patients as per the GBI on the first follow up visit was 17; on second subsequent visit was 39 and on the last visit it was 50 thereby showing a positive correlation between the improvement in quality of life and septal surgery. Septal surgery has a definite and positive impact on improving the health related quality of life of patients.

Key words: Quality of life (QOL) after surgery, outcome assessments.

INTRODUCTION

Nasal septal deformity is a frequent clinical entity, and septoplasty comprises one of the most common procedures performed by otolaryngologists today (Samad et al., 1992). Septal surgeries are performed to improve the nasal airways by correcting the deviations of the nasal septum. They are often done alone or in combination with sub-mucosal diathermy (SMD) to the inferior turbinate or other turbinate surgery.

Deviation of nasal septum can result in nasal obstruction, sinus disease, crooked nose deformity and other structural problems. Substantial deviations of the nasal septum may also affect the humidification, olfaction, and air filtering and temperature regulation of the nose. The development of septal surgery, or septoplasty, has passed through many phases over the past 100 years. Contemporary septal surgery began when Cottle et al. (1958) and Cottle and Loring (1948). Goldman (1956) and Gubisch (1995) described the disadvantages of radical septal surgery. A conservative philosophy was developed that favoured limited tissue excision and the preservation or reconstitution of the supporting septal components. These conservative techniques, collectively called as septoplasty, were more reliable than sub-mucosal resection, which healed unpredictably. The decision to perform sub-mucosal resection is no longer controversial. Contemporary septal surgery incorporates both techniques, a blend of conservative septal surgery and judicious resection of the non-supporting septal components.

Health-Related Quality of Life (HRQL) measures the impact of a pathologic condition on patient's daily life. There are two aspects which are measured: (i) Disease or condition specific outcome measures which assess nasal symptoms and (ii) General health status outcome measures which are generic and assess a broad range of health status indicators and effects of illness (Calder and Swan, 2007). Disease specific outcome measures which

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1. Has the result of the *operation/intervention* affected the things you do?**				
Much worse worse 1	A little or somewhat 2	No change better 3	A little or somewhat 4	Much better 5
2. Have the results of the *operation/intervention* made your overall life better or worse?**				
Much better better 5	A little or somewhat 4	No change worse 3	A little or somewhat 2	Much worse 1
3. Since your *operation/intervention*, have you felt more or less optimistic about the future?**				
Much more optimistic 5	More optimistic 4	No change 3	Less optimistic 2	Much less optimistic 1
4. Since your *operation/intervention*, do you feel more or less embarrassed when with a group of people?**				
Much more embarrassed 1	More embarrassed 2	No change 3	Less embarrassed 4	Much less embarrassed 5
5. Since your *operation/intervention*, do you have more or less self-confidence?**				
Much more self-confidence 5	More self-confidence 4	No change 3	Less self-confidence 2	Much less self-confidence 1
6. Since your *operation/intervention*, have you found it easier or harder to deal with company?**				
Much easier 5	Easier 4	No change 3	Harder 2	Much harder 1
7. Since your *operation/intervention*, do you feel that you have more or less support from your friends?**				
Much more support 5	More support 4	No change 3	Less support 2	Much less support 1
8. Have you been to your family doctor, for any reason, more or less often, since your *operation/intervention*?**				
Much more often 1	More often 2	No change 3	Less often 4	Much less often 5
9. Since your *operation/intervention*, do you feel more or less confident about job opportunities?**				
Much more confident 5	More confident 4	No change 3	Less confident 2	Much less-confident 1
10. Since your *operation/intervention*, do you feel more or less self-conscious?**				
Much more self-conscious 1	More self-conscious 2	No change 3	Less self-conscious 4	Much less self-conscious 5
11. Since your *operation/intervention*, are there more or fewer people who really care about you?**				

Figure 1. The GBI questionnaire (all-purpose).

have been used to include the nasal obstruction septoplasty effectiveness study (NOSE) (Stewart et al., 2004), the sinonasal outcome test (SNOT) (Buckland et al., 2003), the Fairlay nasal symptom score (Arunachalam et al., 2001) and the nasal health survey (Seigel et al., 2000). The genera health status questionnaire which was used includes the Nottingham health profile and Glasgow benefit inventory (GBI).

The Glasgow benefit inventory (GBI) is a post intervention questionnaire that contains 18 questions (Figures 1 and 2) which are completed by the patients or an interviewer. The scores range from +100 to -100. The

10. Since your *operation/intervention, do you feel more or less self-conscious?**

Much more self-conscious	More self-conscious	No change	Less self-conscious	Much less self-conscious
1	2	3	4	5

11. Since your *operation/intervention, are there more or fewer people who really care about you?**

Many more people	More people	No change	Fewer people	Many fewer people
5	4	3	2	1

12. Since you had the *operation/intervention, do you catch colds or infections more or less often?**

Much more often	More often	No change	Less often	Much less often
1	2	3	4	5

13. Have you had to take more or less medicine for any reason, since your *operation/intervention,?**

Much more medicine	More medicine	No change	Less medicine	Much less medicine
1	2	3	4	5

14. Since your *operation/intervention, do you feel better or worse about yourself?**

Much better	Better	No change	Worse	Much worse
5	4	3	2	1

15. Since your *operation/intervention, do you feel that you have had more or less support from your family?**

Much more support	More support	No change	Less support	Much less support
5	4	3	2	1

16. Since your *operation/intervention, are you more or less inconvenienced by your *health** problem?**

Much more inconvenienced	More inconvenienced	No change	Less inconvenienced	Much less inconvenienced
1	2	3	4	5

17. Since your *operation/intervention, have you been able to participate in more or fewer social activities?**

Many more activities	More activities	No change	Fewer activities	Many fewer activities
5	4	3	2	1

18. Since your *operation/intervention, have you been more or less inclined to withdraw from social situations?**

Much more inclined	More inclined	No change	Less inclined	Much less inclined
1	2	3	4	5

Figure 2. The GBI questionnaire (all-purpose); a continuation of the questionnaires.

calculation is as follows: Total score is divided by 18; then from the result 3 is subtracted from this result with multiplication by 50 to give the final score http://www.ihr.mrc.ac.uk/scottish/products (MRC Institute of Hearing Research, 2008). GBI is a valuable tool for the assessment of benefit from nasal septal surgery for nasal obstruction and may be applicable in clinical practise (Uppal et al., 2005).

MATERIALS AND METHODS

The aim of this study was to measure the change in patients' overall health status following the nasal septal surgery with or without turbinate surgery.

The patients who were admitted for the nasal septal surgery were included in the study after their full written and informed consent was taken. Patients of age below 18 years were not included; both sexes were included in the study. Those patients who were having a second or subsequent revision septal surgery were not included in the study. Patients were either given the GBI to be filled out or were completed by us after asking the patients. This was done on three occasions – at one week, three weeks, and seven weeks postoperatively.

The venue was the ENT department, Abbasi Shaheed Hospital, Karachi and it was done form January 2008 to August 2008. The number of cases enrolled in the study was 100 of which the males were 82 (82%) while females were 12 (12%). The mean age was 22.5 years.

The outcome measure was GBI score. It was recorded, giving a measure of change in the health status of the patients. Statistical analysis was performed using the SPSS [statistical program for

social sciences] software version 10.

RESULTS

Average score of patients on the first follow up visit was 17; on second subsequent visit was 39 and on the last visit it was 50 thereby showing a positive correlation between the improvement in quality of life and septal surgery.

DISCUSSION

In the available literature, it is clear that most of the times the focus of study has been the disease specific symptoms like catarrh, obstruction etc while the general health related status was seldom determined and even if it did- it failed to show any significant improvement. In our study, we have found that not only in the disease specific symptoms but also in the general health related areas patients found significant improvement (average GBI on first visit is 17, then 35 and finally 50).

Studies like that of Buckland et al., (2003), concentrated mostly on the disease specific symptoms while those of Arunachalam et al. (2001) and Konstantinidis et al. (2005) assessed the general health status by using the Nottingham health profile and general health questionnaire and GBI respectively but failed to show any significant improvement in their study.

In our study, it is evident that there is a significant improvement in the general health status of the patients and, although not measured, there has also been a dramatic improvement in the disease specific symptoms. No authors have used the GBI to assess outcome measure for the septoplasty but few have used it as an outcome measure for rhinoplasty McKeiman et al. (2001) and others like endoscopic sinus surgery, post tonsillectomy, laser palatoplasty.

Conclusion

Our surgery suggests that, if septal surgery is well-performed and for the correct indications, it improves the overall health related quality of life.

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