

Post-Operative Depression in Rhinoplasty Patients

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ABSTRACT

Objective: To explore the development of depression in patients undergoing rhinoplasty.

Study Design: Cross-sectional study

Place and Duration of Study: This study was conducted at the Halcyon Medical Centre Lahore, July 2018 to March 2020.

Materials and Methods: It is a cross-sectional study consisting of 38 patients. Out of these 10 patients were male and 28 females. 35% patients went through this surgery for medical reasons while remaining for aesthetic purposes. Follow up plan for rhinoplasty patients already in place at our Halcyon Medical Centre Lahore. All the patients coming for follow up after rhinoplasty were properly assessed for the complications one can have after rhinoplasty. Patients who showed signs and symptoms of major depression were assessed in detail for early identification and management.

Results: Out of 38 patients undergoing rhinoplasty, only 5 patients showed signs of major depression. Four of these were females and one male. Total percentage of affected individuals was 13 % which might not be clinically significant but it seems to be more common among females as compare to men.

Conclusion: Depression might not be a clinically significant post-operative complication of Rhinoplasty but still it can be troublesome for patients, their families and carers.

Key Words: Rhinoplasty, Plastic surgery, Depression, Psychiatry.

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INTRODUCTION

Plastic surgery has emerged as an advancing field for the last few decades.¹ The continuous advancement of medical equipment and techniques in this field have had an effect on the surgical as well as pharmaceutical development. One of the important change seen in this regard is the rising trend of aesthetic surgery.² Despite risk of complications, many people undergo cosmetic surgery. Like other surgeries, plastic surgeries also accompany post-operative complications which may be physical or psychological in nature. The most significant complications are scarring, keloids, organ damage, dissatisfaction and depression.³ Rhinoplasty is a surgery designed to change the shape of nose.⁴

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The upper part of nose being the bone and lower part cartilage, both these connective tissues need to be dissected and recreated accordingly. Most common reason of rhinoplasty is either to change the appearance of nose or to resolve breathing problems. The recovery time is around 2 weeks.⁵ However, Rhinoplasty has some side effects, the most considerable being the bruising and swelling under eyes. In addition, a little swelling of the nose is expected, which might take almost six months to one year to resolve.

Post-surgical depression can be of concern among patients undergoing Rhinoplasty. Depression is a mood state of sadness, gloom, and pessimistic ideation with loss of interest or pleasure in normal activities.⁶ It has been reported to occur more frequently among cosmetic surgery patients. Personal satisfaction is important when dealing with the appearance and a significant obsession is noted among some patients. This has led to an enormous increase in the number of individuals undergoing aesthetic procedures.⁷

In case of Rhinoplasty, though rare but post-operative psychological reactions to the procedure are noted.⁸ Risk of developing such psychological complications is more likely in patients undergoing surgery for cosmetic reasons.⁹ Some patients describe their feelings as clear cut depression after the procedure. Routinely, most of the patients' motive for surgery is a better cosmetic outcome. The feeling of un-satisfaction is commonly seen when they don't find the results as they had expected. An important point of concern here is if patients who present with similar complaints of

depression or social phobia prior to the procedure are included in the study, befitting conclusions cannot be made. Some patients suffering from chronic illness or psychological disorders will present with similar complaints after the surgery.¹¹ In our study, we included those cases who were previously not diagnosed with depression and were not on any antidepressant medication before rhinoplasty.

While the reasons of depression in such patients remain debatable, the findings of our study might help devise plans to avoid or at least minimise postoperative depression. This can be done with better procedure, comprehensive patient consultation and follow-ups.

MATERIALS AND METHODS

This cross-sectional study was conducted on Rhinoplasty patients at Halcyon Medical Centre, Lahore between July 2018 to March 2020. The study included 38 patients, out of which ten were males and 28 females.

The study included two types of patients:

- 1: Patients with aesthetic motives.
- 2: Patients with functional motives, most commonly being the breathing problems.

Data regarding these two sets of individuals was collected from the clinic. ICD-10 criterion was used for diagnosis of depression. For the collection of data, these patients were briefly explained regarding the research, its objectives and clinical goals. Period of recovery is sometimes greater than expected in some cases and for the psychological parameters evaluation, a proper follow up is vital. One of the most important things to be done is the assessment of the patient before the surgery to rule out any prior depressive symptoms.

Inclusion Criteria: We included adult patients who went through rhinoplasty in this period i.e. between July 2018 to March 2020. Otherwise Healthy individuals who were not on any antidepressants prior to undergoing surgery were included in the study.

Exclusion Criteria: Patients suffering from depression or on antidepressant medication were excluded from the study.

Each individual was called for a follow up according to protocol of our medical centre. Every patient with rhinoplasty was free to discuss any concern postoperatively. However, patients who showed signs and symptoms of major depression were given necessary care and proper management if they had any problem. All of their concerns were noted down and explained to them.

All the data collected from these individuals was analyzed. SPSS Software version 16 was used for data entry, analysis and compilation. For qualitative variables, frequency and percentage distribution tables were generated. Mean and standard deviation were calculated for quantitative variables. P value of 0.05 was taken as significant.

RESULTS

It is usually noted that women have more interest in cosmetics and aesthetics than men. Same is the case in our study. There were total of 38 patients out of which 26% were men and 74% women. It is given in tabular form as follows.

Table No.1: Gender detail with percentage

Gender	No. of Patients	Percentage
Male	10	26%
Female	28	74%

For procedure such as Rhinoplasty there can be two motives. One is Medical or Functional motive. The other reason is cosmetics. Most of the patients arriving in plastic surgery clinics have cosmetic motive. Our results also show that most of the patients had cosmetic reasons to undergo Nose Reshaping procedure

Table No.2: Motive of surgery of patients with percentage

Motive of Surgery	% age of patients	No. of Patients
Medical Reasons	34%	13
Cosmetic Motive	66%	25

Patients with medical reasons were mostly men and with cosmetic motive were mostly women. Personal satisfaction is an important parameter when considering the results of a cosmetic surgery. In case of Rhinoplasty, nose reshaping is a useful procedure for cosmetic reasons, but the results are not always satisfactory. Following data describes the personal satisfaction in first 2 months after rhinoplasty.

Table No.3: Gender-wise personal satisfaction of patients

Gender	No. of Satisfied Patients	No. of unsatisfied Patients
Male	09 (23.68%)	01 (2.63%)
Females	24 (63.15%)	04 (10.52%)

Depression after the surgery was analysed. Following information was gathered in these individuals.

Table No.4: Depression after surgery detail

	Category-1 without Depression	Category-2 with Depression	Total	P Value
Group-1 Males	09	01	10	0.731
Group-2 Females	24	04	28	0.841
Total	33	05	38	

As depicted in the above data, P value is greater than optimal value of 0.05.

Number of patients who visited the clinic and went through the procedure of Rhinoplasty were mostly women. Ratio of men to women was 1:3. The basic motive of surgery in these cases was for cosmetic reasons. Most of the patients who had gone surgery for

medical reasons were satisfied with the results. Dissatisfaction and psychological issues were seen in patients more concerned with cosmetic reasons.

04 out of 05 patients who were not satisfied with the results were female and their motive was cosmetic improvement. There were total 5 patients who developed major depression. Out of these 04 (80%) were females and 01 patients (20%) was male. This makes a total percentage of 13 % patients who presented with Post-Operative Major Depression.

DISCUSSION

This study was conducted to evaluate post-operative depression in Rhinoplasty patients. Demographic details are important when evaluating cause and response of patients undergoing cosmetic surgery.¹² Pakistan being developing country doesn't report many cases of cosmetic surgery as compare to developed countries. Cultural norms and social behaviour are usual barriers to cosmetic surgeries.¹³ Besides aesthetic motives, functional causes are probable causes of surgeries such as Rhinoplasty. The number of female patients visiting the clinic for aesthetic reasons is greater than the number of male patients.¹⁴ Functional reasons may be similar in both males and females but aesthetic motive is greater in females. In western population, cosmetic surgery has increased in the last decade.¹⁵ Similarly, our results show that mostly females went through Rhinoplasty and the number of females going through this procedure for medical reasons was less than those due to cosmetic reasons. Rhinoplasty patients can also present with breathing problems which might have better prognosis.¹⁶ In our study, five patients showed signs and symptoms of major depression. One was male and four females. Most of the patients were satisfied after one month of surgery. Four female patients who showed symptoms of depression were not satisfied with the results initially. "P" value for both male and females was much greater than 0.05. Therefore, our results show that post-operative depression is not statistically significant. However, major depression can be a very serious health problem which should be dealt carefully and plastic surgeon should get the help of psychiatrist or psychologist if needed. We noticed that our patients were reluctant to visit psychiatrist or psychologist due to stigma. This can improve by proper awareness & psycho education.

Naraghi, M, et al, conducted a research and they concluded that depression is not clinically significant in Rhinoplasty patients.¹⁷ Only a few patients showed post-operative depression in their research and few of these already had some psychological complications prior to surgery. The main reason of this insignificance is success of surgery and alleviation of any breathing problem associated.¹⁸ If any post-operative depression was observed in these patients, it was treated within a

short period of time. Both psychotherapy and anti-depressants proved to be effective in such cases. Patient satisfaction is an important concern which cannot be ignored.^{19,20}

Our research shows similar results. Focus of our research was major depression though statistically insignificant but can be a major health problem for the patients and challenging for treating doctor as well.

CONCLUSION

The findings of our research suggest that the level of satisfaction among patients undergoing rhinoplasty was high, with rather little or no complications of psychological nature. Though Depression was not statistically significant Post-Operative complication of Rhinoplasty in our study, it cannot be ignored. It was more common among females especially those undergoing surgery for cosmetic reason. Major depression is a serious health condition and even if it happens in a few patients, it can be very disturbing for the patient and family as well.

Recommendations: We suggest that the patient undergoing surgery should be carefully evaluated for any major psychiatric illness before the procedure and patients for rhinoplasty with cosmetic indications should be selected very carefully. Collaboration between Plastic surgery, psychology and psychiatry teams will go a long way in improving the outcome of our patients.

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Author's Contribution:

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Data Analysis:	- all above -
Revisiting Critically:	- all above -
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REFERENCES

1. Edmonds A. Pretty modern: beauty, sex, and plastic surgery in Brazil. Duke University Press; 2010.
2. Gunasekaran A, Yusuf YY, Adeleye EO, Papadopoulos T. Agile manufacturing practices: the role of big data and business analytics with

- multiple case studies. *Int J Production Res* 2018; 56(1-2):385-97.
3. Gidron Y. *Effects of Psychological Predictors and Interventions on Recovery from Surgery*. Behavioral Medicine. Springer, Cham; 2019. p.151-165.
 4. Lavernia L, Brown WE, Wong BJ, Hu JC, Athanasiou KA. Toward tissue-engineering of nasal cartilages. *Acta biomaterialia* 2019;88:42-56.
 5. Hakimi AA, Prasad KR, Hong EM, Standiford L, Chang E, Cobo R, Jang YJ, Wong BJ. Video Standards for Rhinoplasty Education: A Review and Recommended Guidelines. *Facial Plastic Surg Aesthetic Med* 2020;22(3):219-24.
 6. Ghavimi MA, Nezafati S, Yazdani J, Poulak T, Amini M, Poulak T, et al. Comparison of edema and ecchymosis in rhinoplasty candidates after lateral nasal osteotomy using piezosurgery and external osteotomy. *J Advanced Pharmaceutical Technol Res* 2018;9(3):73.
 7. van Loon M, van den Broek S, ten Cate O. A Model Study Guide for Case-Based Clinical Reasoning. *Principles and Practice of Case-based Clin Reasoning Educ* 2018;121.
 8. Kendler KS. The phenomenology of major depression and the representativeness and nature of DSM criteria. *Am J Psychiatr* 2016;173(8):771-80.
 9. Sarwer DB, Crerand CE. Evaluation of Body Dysmorphic Disorder in Patients Seeking Cosmetic Surgery and Minimally Invasive Treatments. *Body Dysmorphic Disorder; Advances in Research and Clinical Practice* 2017;449.
 10. Simonacci F, Bertozzi N, Grieco MP, Grignaffini E, Raposio E. Procedure, applications, and outcomes of autologous fat grafting. *Annals Med Surg* 2017;20:49-60.
 11. Balaji SM. Cleft rhinoplasty-columellar lengthening prolabial reconstruction with Abbe flap. *Annals Maxillofacial Surg* 2016;6(1):63.
 12. Silva I, Cardemil C, Kashani H, Bazargani F, Tarnow P, Rasmusson L, et al. Quality of life in patients undergoing orthognathic surgery—A two-centered Swedish study. *J Cranio-Maxillofacial Surg* 2016;44(8):973-8.
 13. Woods K. 'Facing'Identity in a 'Faceless' Society: Physiognomy, Facial Appearance and Identity Perception in Eighteenth-Century London. *Cultural and Social History* 2017;14(2):137-53.
 14. Chambrone L, de Castro Pinto RC, Chambrone LA. The concepts of evidence-based periodontal plastic surgery: Application of the principles of evidence-based dentistry for the treatment of recession-type defects. *Periodontol* 2000. 2019; 79(1):81-106.
 15. Jovic M, Sforza M, Jovanovic M, Jovic M. The Acceptance of Cosmetic Surgery Scale: Confirmatory factor analyses and validation among Serbian adults. *Current Psychol* 2017;36(4): 707-18.
 16. Gao Y, Niddam J, Noel W, Hersant B, Meningaud JP. Comparison of aesthetic facial criteria between Caucasian and East Asian female populations: an esthetic surgeon's perspective. *Asian J Surge* 2018;41(1):4-11.
 17. Naraghi M, Atari M. Gender differences in aesthetic rhinoplasty patients: a study on psychopathological symptoms. *Open J Med Psychol* 2016;5(01):1.
 18. Patnaik U, Nilakantan A, Bajpai R, Addya K. Comprehensive assessment in cosmetic rhinoplasty: the use of the Derriford Appearance Scale for evaluation of patients. *medical journal armed forces India* 2019;75(2):184-9.
 19. Xiao H, Zhao Y, Liu L, Xiao M, Qiu W, Liu Y. Functional/aesthetic measures of patient satisfaction after rhinoplasty: a review. *Aesthetic Surg J* 2019;39(10):1057-62.
 20. Herruer JM, Prins JB, van Heerbeek N, Verhage-Damen GW, Ingels KJ. Does self-consciousness of appearance influence postoperative satisfaction in rhinoplasty? *J Plastic, Reconstructive & Aesthetic Surg* 2018;71(1):79-84.