



## **Identical Twins Rhinoplasty; Twice the Challenge**

**Sultan Alanazy<sup>1\*</sup> and Turki Aldriweesh<sup>2</sup>**

<sup>1</sup>Department of Otolaryngology, Head and Neck Surgery, College of Medicine, Al Qassim University, Al Qassim, Saudi Arabia.

<sup>2</sup>Department of Otolaryngology, Head and Neck Surgery, College of Medicine, Prince Sattam Bin Abdulaziz University, Al Kharj, Saudi Arabia.

### **Authors' contributions**

This work was carried out in collaboration between both authors. Author SA designed the study, wrote the protocol and wrote the first draft of the manuscript. Author TA managed the literature searches and editing. Both authors read and approved the final manuscript.

### **Article Information**

DOI: 10.9734/BJMMR/2017/33672

Editor(s):

(1) Mohammad Waheed El-Anwar, Otorhinolaryngology Department, Faculty of Medicine, Zagazig University, Egypt.

Reviewers:

(1) Lincoln Saito Millan, Pacific Private Hospital, Australia.

(2) Adham Farouk, Alexandria University, Egypt.

(3) Silviu Albu, Iuliu Hatieganu University of Medicine and Pharmacy, Romania.

(4) G. S. Oladipo, University of Port Harcourt, Nigeria.

Complete Peer review History: <http://www.sciencedomain.org/review-history/19303>

**Mini-review Article**

**Received 25<sup>th</sup> April 2017**

**Accepted 28<sup>th</sup> May 2017**

**Published 2<sup>nd</sup> June 2017**

### **ABSTRACT**

In identical twins, they have strong special environmental, psychological and social relationships. Rhinoplasty is one of the most popular procedure and in this group of the population carries distinct consideration regarding the evaluation of the behavior of each of them, dysmorphia, expectations, motivation, operative timing, phenotype identities, and result. The rhinoplasty surgeon deals with them as a two-part unit. The aim of this review is to elaborate the difficulty of rhinoplasty in identical twins from the first visit until post-operative period.

*Keywords: Twins; rhinoplasty; facio-plasty; surgery.*

### **1. INTRODUCTION**

To be part of identical twins is special thing due to strong environmental, psychological and social

relationships. They fuse together and losing their ego boundaries in a phenomenon called "twinning" [1]. They often assume themselves as one unit and each of them consider his/herself as an extension and responsible of another twin.

\*Corresponding author: E-mail: [sultan55m@hotmail.com](mailto:sultan55m@hotmail.com);

Also, they talk about themselves by using the pronoun we instead of I because of strong relationship [2,3].

Rhinoplasty is one of popular procedure that aims to change the external and internal shape of the nose. It can be cosmetic, functional or reconstructive rhinoplasty [4-6]. In cosmetic rhinoplasty, the aim is to correct external shape of the nose, while in functional rhinoplasty the aim is to improve the function of the nose like difficulty in breathing [7].

Rhinoplasty in identical twins carries distinct consideration regarding the evaluation of the behavior of each of them, dysmorphia, expectations, motivation, operative timing, phenotype identities and result [8]. As consequences, this needs greater effort from surgeon to perform rhinoplasty on such patients as two parts of one unit. The surgeon should understand the outcome of surgery will not be evaluated by the patient only but also by another twin [8]. However, rhinoplasty as surgery in identical twins passes through the same process in singleton patients, except that the surgeon deals with the two-part unit. Limited data were published about this entity. Here we aim to elaborate the difficulty of rhinoplasty in identical twins from the first visit until post-operative period.

## 2. INITIAL VISIT

In general, the first visit in rhinoplasty is important to determine the patient's expectations, fears and concerns [9,10]. In the beginning, elaborate the main problem in the appearance of the patient focusing on his/her motivation for the surgery which will lead to the identification of unrealistic surgical expectations [10]. Also, medical and surgical history should be taken in a careful way with more attention to previous nasal surgery or trauma [9].

Regarding expectations in identical twins, it is important to know that they like to be similar, more similar or look different [10]. To achieve that, open-end questions are used with sufficient time for each of them separately [2]. At the end, patient satisfaction and result of surgery should be discussed with each part of identical twins.

## 3. EVALUATION AND PHYSICAL EXAMINATION

During the regular examination, nose and face should be thoroughly assessed. This includes inspection, palpation, and intranasal

examination. During an inspection of the nose, skin, cartilage and bone should be observed well. Digital palpation is performed along all parts of the nose to identify the fracture lines. Intranasal examination aims to evaluate baseline view, nasal mucosa, nasal septum and turbinate. It is done before and after applying the decongestant. If needed, nasal endoscopy is performed for more details of deformity [9,11].

Evaluation and physical examination in identical twins are like that in regular rhinoplasty. However, in identical twins, they are identical in genotype but their phenotype expression can vary and should be assessed before surgery [8]. Furthermore, environmental factors can contribute to facial asymmetry which includes sleep position, smoking, alcohol consumption, dentures, tooth extraction, stress and headache [12].

## 4. STANDARD PHOTOGRAPHY AND COMPUTER IMAGING

In standard photography, frontal, lateral, oblique and basal views should be taken [6]. Recently, imaging and computer analysis were used frequently as important tools for both patient and surgeon. By using it, the patient can obtain better imagination about the result of surgery. Also, the surgeon can get the better aesthetic result from surgery prospectively [9,13].

In addition, patient's expectations and wishes can obtain in relation to individual anatomy [14]. In identical twins, computer imaging is a worthwhile tool to understand the wishes and result of surgery in both of them. However, there are limitations of this software program and should be known by the patients [9,15].

## 5. SURGICAL CONSIDERATION

For surgical aim and plan, the surgeon should consider the aim of surgery to be successful surgery for each twin regardless the outcome of the surgery of another twin [16]. The time of surgery in identical twins is extremely important because the twin who was operated first will be assumed as a clinical model for another part if not done on the same day. Surgery of both twins can be done on the same day or can be done days, weeks, or months in between [8]. Regarding surgical techniques, either open or closed approach can be used depends on preoperative assessment and plan. In addition to regular surgical candidates, identical twins have

the advantage of using isogenic grafting from another part of twins with high successful rate [17].

## 6. CONCLUSION

In identical twins, they have strong environmental, psychological and social relationships and often assume themselves as one unit. These unique relationships make the rhinoplasty in these patients more difficult and more challenge for the surgeon. This needs a thorough evaluation of psychological aspect of these patients along with proper facial analysis to achieve a successful surgical outcome for the surgeon and identical twins.

## CONSENT

It is not applicable.

## ETHICAL APPROVAL

It is not applicable.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

## REFERENCES

1. Jarrett D, McGarty M. Twin yearning. *Hillside Journal of Clinical Psychiatry*. 1980;2(2):195-215.
2. Al-Sebeih KH, AbouSheleib W. Identical twins rhinoplasty: Challenges & psychological aspects. *Journal of Otology & Rhinology*; 2015.
3. Erikson EH, Erikson JM. *The life cycle completed (extended version)*: WW Norton & Company; 1998.
4. Friedman O, Cekic E, Gunel C. Functional rhinoplasty. *Facial Plast Surg Clin North Am*. 2017;25(2):195-9. Epub 2017/02/21  
DOI: 10.1016/j.fsc.2016.12.004  
PubMed PMID: 28340650
5. Floyd EM, Ho S, Patel P, Rosenfeld RM, Gordin E. Systematic review and meta-analysis of studies evaluating functional rhinoplasty outcomes with the NOSE score. *Otolaryngology–Head and Neck Surgery*. 2017;156(5):809-15.
6. Rohrich RJ, Ahmad J. Rhinoplasty. *Plastic and Reconstructive Surgery*. 2011;128(2):49e-73e.
7. Yu K, Kim A, Pearlman SJ. Functional and aesthetic concerns of patients seeking revision rhinoplasty. *Archives of Facial Plastic Surgery*. 2010;12(5):291-7.
8. Mühlbauer W. Plastic surgery on identical twins. *Annals of Plastic Surgery*. 1991;26(1):30-9.
9. Steiger JD. The rhinoplasty consult. *Facial Plastic Surgery*. 2011;27(05):393-6.
10. Constantinides M. The rhinoplasty consultation and the business of rhinoplasty. *Facial plastic surgery clinics of North America*. 2009;17(1):1-5.
11. Johnson MD. Management of pediatric nasal surgery (Rhinoplasty). *Facial Plastic Surgery Clinics of North America*; 2017.
12. Liu MT, Iglesias RA, Sekhon SS, Li Y, Larson K, Totonchi A, et al. Factors contributing to facial asymmetry in identical twins. *Plastic and Reconstructive Surgery*. 2014;134(4):638-46.
13. Sharp H, Tingay R, Coman S, Mills V, Roberts D. Computer imaging and patient satisfaction in rhinoplasty surgery. *The Journal of Laryngology & Otology*. 2002;116(12):1009-13.
14. Mühlbauer W, Holm C. Computer imaging and surgical reality in aesthetic rhinoplasty. *Plastic and Reconstructive Surgery*. 2005;115(7):2098-104.
15. Rohrich R, Ahmad J. Open technique rhinoplasty. *Plastic Surgery 3<sup>rd</sup> ed*, New York: Saunders Elsevier. 2012;387-412.
16. Goodwin M. Variables in rhinoplasties in identical twins. *Eye, Ear, Nose & Throat Monthly*. 1972;51(3):109-10.
17. Yigit B, Bicer A, Aytöp D. Isogenic cartilage transfer in rhinoplasty procedure. *Journal of Craniofacial Surgery*. 2015;26(1):e1-e2.

© 2017 Alanazy and Aldriweesh; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

*Peer-review history:*  
*The peer review history for this paper can be accessed here:*  
<http://sciencedomain.org/review-history/19303>