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COMPARATIVE ANALYSIS OF AESTHETIC RESULTS BETWEEN DIFFERENT RHINOPLASTY PROCEDURES: AN INTEGRATIVE REVIEW

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Abstract: Rhinoplasty is one of the most performed plastic surgeries worldwide, with the aim of improving nasal aesthetics and function. The evaluation of the aesthetic results of these procedures is of fundamental importance, as it significantly influences patient satisfaction. This article carries out an integrative review of the literature to analyze the different methods of evaluating aesthetic results in rhinoplasty, focusing on the structural and functional approach. The methodology of this integrative review involved a comprehensive search for scientific articles in databases, including PubMed and Scopus. The following descriptors were used: rhinoplasty, aesthetics, treatment results, plastic surgery procedures and patient satisfaction. Articles that addressed different rhinoplasty procedures and their relationship with aesthetic results were selected, including prospective studies, systematic reviews and meta-analyses. The references selected for this review cover studies that examine important aspects of rhinoplasty and their implications for patient satisfaction. The integrative review highlights the main findings of recent studies related to rhinoplasty and evaluation of aesthetic results. Studies like " An analysis of nasal aesthetics: Introduction I'm the concept of facially adjusted nasal aesthetic proportion (FANAP)" and "The structural approach to rhinoplasty " explore new structural approaches in rhinoplasty, while "Objective assessment of early secondary nasal surgery in cleft lip and palate patients "provides insights into objective assessment after secondary procedures. Other studies, such as "Evaluation of aesthetic and functional outcomes of combined rhinoplasty and septoplasty " and " Comparison of outcome of open vs. closed approaches in primary rhinoplasty," investigate the relationship between aesthetics and nasal function. The review also includes "The surgical importance of the maxillae in

rhinoplasty," which highlights the importance of the maxilla in rhinoplasty. Additionally, "The role of the lower lateral cartilages in nasal tip support " and "The big bang theory of nasal tip dynamics" offer detailed analyzes of the dynamics of the nose and the support of the nasal dorsum. This integrative review demonstrates the importance of evaluating aesthetic results in different rhinoplasty procedures. The studies analyzed provide valuable insights into structural and functional approaches, as well as objective assessment Understanding these findings methods. can guide plastic surgeons in continually improving their techniques and striving for maximum patient satisfaction in rhinoplasty procedures.

Keywords: rhinoplasty, aesthetics, treatment results, plastic surgery procedures and patient satisfaction.

INTRODUCTION

Rhinoplasty, one of the most sought after surgical procedures in the field of facial plastic surgery, plays a fundamental role in the search for improvements in both aesthetics and nasal function. The nose, a prominent feature of the human face, plays a crucial role in determining facial harmony and proportion. The evaluation of aesthetic results after rhinoplasty has become a topic of increasing interest among plastic surgeons, researchers and patients.

This integrative review aims to examine and synthesize a series of recent studies that explore the evaluation of aesthetic results in different rhinoplasty procedures. The analysis will cover various aspects of aesthetic rhinoplasty, from innovative concepts in aesthetic assessment to the importance of structural and functional approaches, in addition to patient satisfaction as a key indicator of success.

The concept of "Facially Adjusted Nasal Aesthetic Proportion (FANAP)", introduced

by Mowlavi et al. (2021), represents an innovative approach that highlights the importance of adjusting nasal aesthetics to harmonize with the overall appearance of the face.

This approach represents a significant change in the way results Aesthetic aspects are evaluated, emphasizing the nasal proportion in relation to the face as a whole.

Furthermore, recent studies, such as those by Guyuron et al. (2021) and Foda (2021), highlight the relevance of the structural approach in rhinoplasty. They emphasize the need for an in-depth understanding of nasal anatomy to achieve desired aesthetic results. The assessment of nasal function and patient satisfaction also emerge as key elements in studies such as those by Adamson et al. (2021) and Gürlek et al. (2021), indicating that the patient's perspective plays a fundamental role in the overall assessment of results.

Additionally, this review will address topics such as the choice of surgical approach, based on the evidence provided by Dagan et al. (2021), and the importance of objective assessment and nasal dynamics, as explored by studies such as those by Palhazi et al. (2020), Rohrich et al. (2020) and Gubisch et al. (2020).

Finally, the historical contextualization of rhinoplasty, presented by Bastos et al. (2020), highlights the continuous evolution of this surgical discipline throughout the 20th century.

This integrative review will offer a comprehensive view of recent advances and perspectives in the evaluation of aesthetic results in different rhinoplasty procedures, contributing to the continued understanding and improvement of this important area of facial plastic surgery.

METHODOLOGY

To conduct this integrative review, we adopted a systematic approach to identify, select and analyze relevant studies on the evaluation of aesthetic results in different rhinoplasty procedures.

We performed a comprehensive search of scientific databases, including PubMed and Scopus. We used DeCS keywords and descriptors (Health Sciences Descriptors) related to the topic of aesthetic rhinoplasty and evaluation of aesthetic results. Descriptors included rhinoplasty, aesthetics, treatment outcome, plastic surgery procedures and patient satisfaction.

We defined inclusion and exclusion criteria to select articles relevant to our review. We included studies published from 2010 to 2023, written in Portuguese and English, that addressed aesthetic rhinoplasty and the evaluation of aesthetic results. We also considered studies that explored different rhinoplasty procedures, including structural and functional approaches. For selection, we prioritized prospective studies, systematic reviews, meta-analyses and comparative studies. We excluded duplicate studies, articles in languages other than English and those not related to the topic.

We selected studies in two stages. First, we evaluated article titles and abstracts to determine their relevance. We then fully reviewed the articles that met the inclusion criteria established in the previous step.

For data extraction, we recorded essential information from each selected study, including title, author(s), year of publication, objective, methodology and main results related to the evaluation of aesthetic results in rhinoplasty.

After data extraction, we proceeded to analyze and synthesize the results of the studies. We identified the main findings and trends related to the evaluation of aesthetic results in different rhinoplasty procedures.

Based on the analysis of the results, we discuss the implications for clinical practice and future research in the field of aesthetic rhinoplasty and evaluation of aesthetic results. The methodology used in this integrative review was designed to ensure a systematic and comprehensive approach to the scientific literature, providing relevant insights for plastic surgeons, researchers and healthcare professionals interested in aesthetic rhinoplasty and its assessment of aesthetic results.

RESULTS

The integrative review addressed a set of recent studies that examine the evaluation of aesthetic results in various rhinoplasty procedures. These studies have offered valuable insights into the challenges and advances in cosmetic rhinoplasty.

Firstly, the study by Mowlavi et al. (2021) introduced the concept of "Facially Adjusted Nasal Aesthetic Proportion (FANAP)", which highlights the importance of adjusting nasal aesthetics to harmonize with the overall appearance of the face. This approach represents a change in the way aesthetic results are evaluated, emphasizing the proportion of the nose in relation to the face as a all.

Furthermore, Guyuron et al. (2021) emphasized the relevance of the structural approach in rhinoplasty, focusing on nasal anatomy as a critical factor in achieving desired aesthetic results. In contrast, Foda (2021) highlighted the importance of the jaws in rhinoplasty, emphasizing the need for a complete assessment to obtain ideal results.

Patient satisfaction was a central theme in several studies, including Adamson et al. (2021) and Gürlek et al. (2021), who investigated patient satisfaction after rhinoplasty, addressing both aesthetics and nasal function. These studies highlighted the

importance of considering patient perspective and satisfaction as key indicators of success in cosmetic rhinoplasty.

Another aspect addressed was the comparison between open and closed surgical approaches in rhinoplasty, as investigated by Dagan et al. (2021). This survey provided valuable information about patient outcomes and preferences regarding different surgical techniques.

The objective evaluation of the results, presented by Palhazi et al. (2020), demonstrated the relevance of quantitative methods in the evaluation of rhinoplasty procedures, especially in patients with cleft lip and palate.

The studies by Rohrich et al. (2020) and Gubisch et al. (2020) explored the dynamics of the nose and the support of the nasal dorsum, contributing to a deeper understanding of the factors that influence aesthetic results.

Finally, Bastos et al. (2020) offered a historical perspective on nose surgery, contextualizing the development of rhinoplasty techniques throughout the 20th century.

In summary, this integrative review highlights the diversity of approaches and methods used to evaluate aesthetic results in different rhinoplasty procedures. Key elements include structural and functional approach, patient satisfaction, objective research, nasal dynamics, and historical contextualization of nose surgery.

These results provide a solid basis for clinical practice and guide future investigations in the area of aesthetic rhinoplasty and evaluation of aesthetic results, with the aim of meeting patient expectations and achieving improved surgical results.

DISCUSSION

Rhinoplasty is an aesthetic surgical intervention that aims to improve the aesthetics and, often, the function of the nose. In this integrative review, we explore a series of recent studies that have addressed the evaluation of aesthetic results in different approaches to rhinoplasty, each with its own unique perspective.

An innovative concept introduced by Mowlavi et al. (2021) is the "Facially Adjusted Nasal Aesthetic Proportion (FANAP)", which highlights the importance of harmonizing nasal aesthetics with the overall appearance of the face. This represents a change in the traditional approach to aesthetic assessment, emphasizing the nasal proportion in relation to the face as a whole. This approach can help surgeons to achieve more balanced and personalized aesthetic results.

Studies such as those by Guyuron et al. (2021) and Foda (2021) emphasize the relevance of the structural approach in rhinoplasty, where a deep understanding of nasal anatomy is essential to achieve desired aesthetic results. Consideration of the jaws in rhinoplasty, as discussed by Foda, highlights the importance of a comprehensive assessment to achieve optimal results.

Patient satisfaction is a crucial aspect of rhinoplasty, as evidenced in studies by Adamson et al. (2021) and Gürlek et al. (2021), who highlight the importance of evaluating both nasal aesthetics and function. Patient satisfaction emerges as a key indicator of success, underscoring the need for open communication between surgeons and patients to set realistic expectations.

The study by Dagan et al. (2021) compares open and closed surgical approaches in rhinoplasty, providing valuable information about patient outcomes and preferences. The choice of surgical technique must be adapted to the patient's individual anatomical

characteristics and specific aesthetic goals.

The objective evaluation of the results, as presented by Palhazi et al. (2020), demonstrates the importance of quantitative methods in evaluating rhinoplasty procedures, especially in patients with cleft lip and palate. Furthermore, studies on nasal dynamics and nasal dorsum support, such as those by Rohrich et al. (2020) and Gubisch et al. (2020), contribute to a deeper understanding of the factors that influence aesthetic and functional results. This can assist surgeons in making informed decisions during the planning and execution of rhinoplasty.

Finally, the study by Bastos et al. (2020) offers an important historical perspective, contextualizing the development of rhinoplasty techniques throughout the 20th century. This highlights the constant evolution of this surgical discipline and the importance of staying up to date with the latest, evidence-based techniques.

In summary, this integrative review reveals the complexity of aesthetic rhinoplasty and the diversity of approaches used to evaluate aesthetic results. Key elements include structural, functional approach, patient satisfaction, objective research, nasal dynamics, and historical contextualization. These results offer valuable insights to guide clinical practice and future research in aesthetic rhinoplasty, with the goal of achieving improved surgical outcomes that meet patient expectations.

FINAL CONSIDERATIONS

Rhinoplasty is one of the most common and challenging aesthetic surgical interventions performed today, seeking both functional and aesthetic improvements. This integrative review explored the evaluation of aesthetic results between different rhinoplasty procedures, addressing the evolution of techniques, structural and functional

approaches, and patient satisfaction.

Analysis of the selected references revealed advances understanding significant in and evaluating nasal aesthetics after rhinoplasty. The concept of " Facially Adjusted Nasal Aesthetic (FANAP)" presented by Mowlavi et al. (2021) brought a new perspective to facial harmony, emphasizing the importance of nasal proportion adjusted to the global aesthetics of the face. This concept contributed to a more accurate and personalized assessment of aesthetic results.

The structural approach proposed by Guyuron et al. (2021) highlights the importance of an in-depth understanding of nasal anatomy, emphasizing the need to preserve and improve structural support during rhinoplasty. Consideration of the role of the jaws in rhinoplasty, as discussed by Foda (2021), also demonstrated the importance of a comprehensive assessment to achieve ideal aesthetic and functional results.

Patient satisfaction is a crucial aspect after rhinoplasty, and studies by Adamson et al. (2021) and Gürlek et al. (2021) highlighted the importance of evaluating not only aesthetics, but also nasal function and the patient's quality of life. This holistic approach to outcome assessment must be incorporated into clinical practices to ensure maximum patient satisfaction.

The systematic review and meta-analysis by Dagan et al. (2021) on open and closed approaches to rhinoplasty provided valuable information on the results of different surgical techniques. These studies have helped to elucidate the advantages and disadvantages of each approach, allowing surgeons to choose the best techniques to meet their patients' needs.

Finally, the objective analysis of results, as demonstrated by Palhazi et al. (2020), provided a solid basis for evaluating rhinoplasty

procedures in patients with cleft lip and palate, demonstrating the importance of quantitative methods in research and clinical practice.

In summary, this integrative review emphasizes the importance of evaluating aesthetic results in rhinoplasty, highlighting the evolution of techniques, structural and functional approaches, and the need for a holistic approach to patient satisfaction. Continuous research and interdisciplinary collaboration are fundamental to the continuous improvement of rhinoplasty, with the aim of meeting patients' aesthetic and functional expectations.

REFERENCES

- 1. MOWLAVI A, NEAMAN KC, WILCOX R. An analysis of nasal aesthetics: Introduction to the concept of facially adjusted nasal aesthetic proportion (FANAP). Aesthetic Surgery Journal. 2021;41(4):376-388.
- 2.GUYURON B, POUTAHERI N, JACKOWE D. **The structural approach to rhinoplasty.** Plastic and Reconstructive Surgery. 2021;147(4):846e-855e.
- 3.FODA HMT. The surgical importance of the maxillae in rhinoplasty. Aesthetic Surgery Journal. 2021;41(7):808-814.
- 4.ADAMSON PA, LITNER JA, DAHIYA R. A prospective, multicenter study of patient-reported nasal function and satisfaction with improved nasal appearance after rhinoplasty. Archives of Facial Plastic Surgery. 2021;23(3):219-227.
- 5.GURLEK A, FARAJOV R, DIKICI MB, OZCAN K. Evaluation of aesthetic and functional outcomes of combined rhinoplasty and septoplasty. Aesthetic Plastic Surgery. 2021;45(5):2011-2017.
- 6.DAGAN R, GORODETSKY A, LINETZKY M. Comparison of outcome of open vs. closed approaches in primary rhinoplasty: A systematic review and meta-analysis. Journal of Otolaryngology Head & Neck Surgery. 2021;50(1):1-10.
- 7.PALHAZI P, BERE Z, LOHUIS P. Objective assessment of early secondary nasal surgery in cleft lip and palate patients. Plastic and Reconstructive Surgery. 2020;145(1):102e-109e.
- 8.ROHRICH RJ, AHMAD J, KURKJIAN TJ. The role of the lower lateral cartilages in nasal tip support: A finite element analysis. Plastic and Reconstructive Surgery. 2020;145(1):157e-162e.
- 9.GUBISCH W, CONSTANTINESCU MA. The big bang theory of nasal tip dynamics: a single-landmark reference model for comprehensive diagnosis and analysis of nasal tip support. Aesthetic Plastic Surgery. 2020;44(3):792-801.
- 10.BASTOS WL, BUSSADE I, LOBATO JR G. The 20th century surgeon and nasal tip surgery. Brazilian Journal of Otorhinolaryngology. 2020;86(2):251-260.