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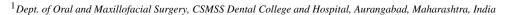
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Review Article

Facial aesthetic surgery: Enhancing beauty through maxillofacial procedures

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ABSTRACT

Facial aesthetic surgery aims to restore or improve facial harmony by addressing specific concerns and enhancing desirable features. This article explores the importance of facial harmony in our perception of beauty and attractiveness, highlighting the impact it has on an individual's self-esteem and confidence. Common surgical procedures such as rhinoplasty, genioplasty, blepharoplasty, facelifts, and lip augmentation are discussed, emphasizing their ability to enhance facial harmony and proportions. The article also examines recent technological advancements in facial aesthetic surgery, including minimally invasive techniques, computer-assisted surgical planning, and 3D imaging, which contribute to more precise outcomes. Considerations and potential risks associated with facial aesthetic surgery are addressed, emphasizing the importance of qualified surgeons, thorough evaluation, and open communication. The conclusion highlights the evolution of facial aesthetic surgery, its ability to enhance natural beauty, and its growing significance in the field of oral and maxillofacial surgery.

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1. Introduction

Facial harmony plays a crucial role in our perception of beauty and attractiveness. It involves achieving a balanced and proportionate relationship between various facial features such as the nose, chin, cheekbones, and jawline. When these features are in harmony, they create a visually pleasing and aesthetically balanced appearance. ¹

With a growing awareness of the profound influence that optimal cosmetic dentistry can exert on an individual's self-image, self-esteem, and self-confidence, patients are seeking more than just the closure of gaps or the whitening of their smiles. Today's patients are increasingly attuned to the size, proportion, and positioning of their teeth in relation to their overall smile and facial appearance. By seamlessly integrating the art and science of cosmetic

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dentistry into our enhancement therapy, we consistently achieve outstanding results. This examination delves into the transformative impact that cosmetic dentistry can have on fostering facial harmony. It underscores the critical significance of conducting a comprehensive esthetic diagnosis and a thorough bioesthetic evaluation for each patient. Furthermore, it emphasizes the value of both objective and subjective assessments, illustrating how a meticulous evaluation of each patient's unique attributes can facilitate the creation of smiles that are not only harmonious but also remarkably natural. ²

Furthermore, facial harmony can have a significant impact on an individual's self-esteem and confidence. When facial features are in balance, it can enhance a person's overall appearance and contribute to a positive self-image. Conversely, when there are noticeable imbalances or asymmetries in facial features, it can lead to self-consciousness and dissatisfaction with one's appearance.³

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Facial aesthetic surgery aims to restore or improve facial harmony by addressing specific concerns and enhancing desirable features. Procedures such as rhinoplasty, genioplasty, blepharoplasty, and facelifts are commonly performed to achieve facial harmony. For example, rhinoplasty can reshape and refine the nose to achieve better facial balance, while genioplasty can reposition or augment the chin to improve facial symmetry and proportion. These procedures are carefully tailored to the individual's unique facial anatomy and desired outcome, with the ultimate goal of achieving facial harmony and enhancing the patient's natural beauty.

Facial asymmetry plays a significant role in how we perceive beauty and attractiveness. Research has shown that asymmetries closer to the midline of the face have a more pronounced impact on attractiveness compared to those affecting the outer regions of the face. 4 Interestingly, studies by Swaddle and Cuthill have suggested that completely symmetrical faces may not be perceived as more attractive, as they may lack the natural directional asymmetries that contribute to a person's emotional expressiveness.⁵ Furthermore, Kowner's research has indicated that a low degree of facial asymmetry in typical individuals does not necessarily diminish their overall attractiveness rating.⁶ This suggests that while facial symmetry is a crucial aspect, it is not the sole determinant of facial beauty. Instead, achieving facial harmony, including appropriate facial proportions and satisfactory midline facial symmetry, emerges as essential elements that collectively influence our perception of attractiveness.

2. Common Surgical Procedures in Facial Aesthetics

2.1. Genioplasty (Chin augmentation)

Genioplasty, also known as chin augmentation, is a surgical procedure that aims to improve the symmetry, projection, or proportion of the chin, thereby enhancing facial harmony. The chin plays a crucial role in overall facial aesthetics, as it contributes to the balance and proportion of the lower face. When the chin is recessed or disproportionately small, it can create an imbalance in facial features. Research has demonstrated the positive impact of genioplasty on face aesthetics and patient satisfaction.

Osseous genioplasty, a surgical procedure for altering chin morphology, was investigated in an Indian patient group over a long-term study by Deshpande SN et al. The research aimed to assess patient satisfaction, complications, and the durability of results. Among 37 subjects with at least two years of follow-up, the procedure showed high success rates, with 97.3% of patients reporting satisfaction and no significant complications. The chin's altered structure maintained stability over time. This study demonstrates that osseous genioplasty is a safe and effective method for achieving a harmonious facial profile, with minimal

complications and excellent, lasting results.⁷

2.1.1. Blepharoplasty (Eyelid surgery)

Blepharoplasty, commonly known as eyelid surgery, is a surgical procedure aimed at rejuvenating the appearance of the eyes by removing excess skin, reducing puffiness, and correcting sagging eyelids. The eyes are a focal point of the face, and the appearance of the eyelids can significantly impact facial aesthetics and overall facial harmony.

Research has highlighted the positive outcomes of blepharoplasty in terms of quality of life and cosmetic results.

Blepharoplasty is a surgical procedure aimed at rejuvenating the appearance of the eyelids. It involves removing excess skin, fat, and muscle to restore a more youthful look. Additionally, it addresses various functional issues like ptosis, brow ptosis, entropion, ectropion, or eyelid retraction. To ensure successful outcomes, careful preoperative assessment is essential, considering the patient's desires, expectations, and medical history. Surgical planning should account for factors like skin excess, fat prolapse, and individual facial features. Complications can arise, so informing patients about potential risks is crucial, and postoperative management varies depending on the nature of concerns, from reassurance to further surgical intervention. Overall, blepharoplasty combines art and science to achieve both aesthetic enhancement and functional improvement in the delicate region of the eyelids.8

Blepharoplasty can address several concerns, including drooping eyelids, under-eye bags, excess skin, and wrinkles around the eyes. By correcting these issues, blepharoplasty enhances the appearance of the eyes, making them appear more youthful, alert, and harmonious with the rest of the face. The procedure aims to restore a natural and rejuvenated look to the eyes, contributing to facial harmony and overall facial aesthetics. The psychological benefits of blepharoplasty should not be overlooked. Patients often experience an improvement in self-confidence and a more positive perception of their facial appearance following blepharoplasty. The rejuvenation of the eyes and the resulting facial harmony contribute to a more youthful and refreshed overall appearance, leading to increased satisfaction and improved psychological well-being. 9

2.1.2. Rhytidectomy (Facelift)

By tightening and realigning facial tissues, a facelift, also known as a rhytidectomy, is a surgical operation intended to correct indications of facial aging. In order to seem younger and more refreshed, it seeks to lessen the visibility of wrinkles, sagging skin, and other age-related changes. Numerous studies have shown the benefits of facelift surgery as an effective technique for facial rejuvenation.

Roostaeian J, et al. (2014) examined the effects of facelift surgery on facial beauty, patient satisfaction, and perceived age in a study that was published in Aesthetic Plastic Surgery. The study involved a thorough review of pictures taken before and after individuals had facelift surgery. The outcomes showed a reported age reduction, significant increases in face attractiveness, and high levels of patient satisfaction. ¹⁰

Facelift surgery can treat a variety of issues, including deep wrinkles, drooping skin around the mouth, jowls, and neck, and diminished face volume. A facelift improves the face's young and harmonious look by tightening the underlying facial muscles and removing extra skin. To increase volume and get the best cosmetic results, other face rejuvenation treatments, such as fat grafting, are frequently used in conjunction with the surgery.

Additionally remarkable are the facelift surgery's psychological advantages. Following the treatment, patients frequently express more self-assurance, higher self-esteem, and a more favorable body image. A sense of general well-being and contentment with one's face aesthetics are boosted by the restoration of a younger and more renewed look. ¹¹

2.1.3. Lip augmentation

A cosmetic treatment called lip augmentation aims to improve the fullness, definition, and proportion of the lips. It is a well-liked course of therapy for people aiming for a more symmetrical and alluring face look. Various methods, such as the use of dermal fillers, fat grafting, or surgical operations, can be used to amplify the lips.

Numerous studies have shown that lip augmentation has a significant impact on patient satisfaction and lip aesthetics.

The shape and fullness of the lips play a vital role in facial aesthetics, and achieving natural-looking lip augmentation is a primary goal. A safe and effective method for lip enhancement has been described, known as "the step-by-step Φ (Phi) technique. 12 " This approach involves injecting hyaluronic acid (HA) in small, controlled amounts, never exceeding 1-1.5 ml in a single session. The golden ratio Φ (phi), approximately 1.618, is used to identify precise injection points on the lips, ensuring symmetry and proportion. By carefully considering each patient's existing lip volume and addressing potential asymmetry, this technique has been successfully employed in 833 patients, resulting in high levels of patient satisfaction. Notably, it minimizes the risk of severe complications and unnatural outcomes, making it a safe and reliable choice for lip augmentation, with only mild side effects like swelling, redness, and mild pain observed. In summary, the step-by-step Φ technique offers a safe, easy-to-learn, and effective approach to achieving natural and harmonious lip enhancements. 12

The goal of lip augmentation operations is to give the patient's lips a larger, more defined appearance that complements their facial characteristics. Lip augmentation can considerably contribute to a more harmonious and attractive facial profile by improving lip volume and contour. The operation is customized to the patient's desired result, considering elements including natural lip architecture, symmetry, and proportion.

Lip augmentation has a good psychological effect on self-esteem and body image. Following lip augmentation, patients frequently express greater confidence and pleasure with their overall face look. The increased lip aesthetics result in a more appealing, harmonious, and young face aesthetic, which improves psychological well-being. ¹²

3. Advancements in Facial Aesthetic Surgery

3.1. Minimally invasive techniques

Recent advancements have introduced minimally invasive procedures such as injectables (e.g., Botox, dermal fillers) and non-surgical skin tightening treatments, providing patients with less downtime and more subtle improvements. A study published in Dermatologic Surgery reported high patient satisfaction and significant aesthetic improvements with minimally invasive facial rejuvenation procedures. ¹³

3.2. Computer-assisted surgical planning

Using cutting-edge imaging technology and computerassisted planning, face cosmetic surgery has undergone a revolutionary change. Now that surgeons can simulate and see surgical results, accuracy and patient satisfaction have increased. ¹⁴

3.3. Three-dimensional (3D) imaging

3D imaging enables improved preoperative planning and patient communication by allowing surgeons to record and analyse face characteristics in a three-dimensional space. The efficacy and dependability of 3D imaging for face analysis and surgical planning were established in a research published in the Journal of Cranio-Maxillofacial Surgery. ¹⁵

4. Considerations and Potential Risks

Facial aesthetic surgery, like any surgical procedure, carries certain risks. Patients considering such procedures should seek consultation with qualified and experienced oral and maxillofacial surgeons. Thorough evaluation, realistic expectations, and open communication between the surgeon and patient are crucial for achieving desired outcomes and minimizing potential risks. Proper patient selection, surgical expertise, and adherence to ethical guidelines are essential factors for successful facial aesthetic surgery outcomes. ¹⁶

5. Conclusion

Facial aesthetic surgery has evolved significantly in recent years, offering patients the opportunity to enhance their natural beauty and boost their self-confidence. Through a range of procedures, skilled oral and maxillofacial surgeons can help patients achieve facial harmony and rejuvenation while prioritizing patient safety and satisfaction. As technology and techniques continue to advance, facial aesthetic surgery will undoubtedly play an increasingly significant role in the field of oral and maxillofacial surgery.

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7. Conflict of Interest

None.

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