Rhinoplasty in the Middle Eastern Patient: A Look at the Finer Details for the Advanced Surgeon

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Received Date: July 08, 2015, Accepted Date: November 27, 2015, Published Date: December 07, 2015.

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Abstract

The Middle Eastern nose has a unique number of characteristics. A thorough knowledge and mastery of these characteristics allow the rhinoplasty surgeon to achieve optimal aesthetic and functional results. Unfortunately, many novice surgeons adhere to the conventional rhinoplasty technique without paying particular attention to the patient’s ethnicity creating an unharmonious face. Over rotation, feminization in male patients, excessive scarring, difficulty breathing, pinched tip and nostril notching are examples of some of the reasons for which many Middle Eastern patients seek revision surgery in our practices. These complications can be avoided by a careful nasal and facial analysis and applying ethnically balance techniques to the individual patient resulting in ideal cosmetic and functional outcomes. We hereby review some of unique nasal characteristics.

Introduction

The aesthetics of the nose play an important role in the overall concept of attractiveness of a person. Its central and prominent location on the face, immediately demands notice of the viewer’s eyes.

The nose is a complex 3D structure composed of bony, cartilaginous, and ligamentous components arranged in an interdependent manner resting upon the bony foundation of the midface and draped over by a soft tissue-skin envelope. Intrinsic of each component of the nose is its form, size, and strength. Additionally, there is an important interplay between the components and in relation with adjacent and supporting structures that the nose its final shape and functionality.

Cosmetic rhinoplasty is an operation whereby the architecture of the nose is surgically modified to create a nose that is harmonious and balanced for the patient’s face. In addition, the rhinoplasty surgeon must be cognizant of nasal function to establish and maintain optimal nasal airway.

During initial patient consultation desiring a rhinoplasty, a complete and thorough medical and surgical history must be obtained. History of trauma and the use of intranasal medications must be noted. During exam and later with the use of photography, careful facial analysis must be made in frontal, profile, bird’s eye and basal views. The rhinoplasty surgeon must then analyze each external component of the nose by physical examination and assess the dynamic portions such as the internal valve. Is the nasal root midline? Is there a hump present? What is the character of the nasal skin? Is the nasal tip midline or deviated? Is the tip bulbous, boxy, or pinched? Is the nostril show excessive? Is the tip hanging or over-rotated?

The internal nose must be systematically examined using anterior rhinoscopy and fiberoptic nasal endoscopy. Any septal deviation, turbinate size and mucosal quality, nasal valve insufficiency, masses or polyps, and other findings must be documented and considered in the design of the operations customized for the patient. A one-size-fits-all approach is fraught with dissatisfaction and complications.

The physical examination does not end with the nasal analysis. Taking a step back, the rhinoplasty surgeon must assess the place of the nose on the face. By dividing the face into vertical fifths and horizontal thirds, every aspect of the face must be carefully analyzed. Is the small and setback chin giving the nose the illusion of a large appearance? Is the deep set nasal root giving the appearance of a hump? Is the nose too narrow or too wide in relation to the intercanthal distance?

Once an objective systematic analysis has been performed, the surgeon must address the patient’s desires. One must be very clear about the reason for which the patient has seeked a cosmetic or functional consultation. What the surgeon may view as adequate may not be viewed as such by the patient and vice versa. A long frank discussion about the wishes, possibilities, and limitation must be had with the patient during the consultation.

The Middle Eastern Nose

There are a number of characteristics that make the Middle Eastern nose unique [1]. Without a thorough knowledge of these differences and expertise in dealing with these differences, the novice rhinoplasty surgeon is likely to create a nose that is unfit for the patient’s ethnicity creating an unharmonious face resulting in patient dissatisfaction. Within the Middle Eastern category, the nuances of the Persian (Iranian), Armenian, North African, Phoenician, and Gulf Region must be studied and mastered by the rhinoplasty surgeon. A number of distinct features define a Middle Eastern nose as detailed below. However, the rhinoplasty surgeon must be aware that not all of the character need be present in every patient. The customization of rhinoplasty for the individual patient cannot be overemphasized.

Thick Sebaceous Skin

This type of skin has the advantage of providing a nice coverage over the underlying cartilaginous framework, camouflageing irregularities that may be present. By the same token, the sebaceous skin does make the refinement of the tip difficult. The rhinoplasty surgeon must assess the skin quality and make necessary changes in operative technique, including thinning the tip subcutaneous tissue during the procedure. Without noticing this unique character of the Middle Eastern nose, the novice surgeon may be puzzled by unfavorable result despite adequate cartilaginous tip refinement.

Wound Healing

Excessive scar tissue contracture and keloid formation is characteristic of Asian, African, Hispanic and middle eastern
patients. With this in mind, extra careful soft tissue handling and utmost surgical finesse must be applied to prevent excess scarring underneath the soft tissue envelope which may leave to notching of the nostrils, pulling forces on the cartilages, inverted V deformity, as well as keloiding and unsightly scarring at the columellar incision site. Intraoperative or postoperative use of injectable local corticosteroids could be considered in these patients should there be any concerns about excessive scar formation to maximize optimal results.

**Upper and Lower Lateral Cartilages**

The upper lateral cartilages may produce a narrow angle with the nasal septum predisposing many Middle Eastern patients to nasal valve insufficiency. Although many of these patients may request a “narrower nose,” the rhinoplasty surgeon must be aware of this possibility and counsel patients accordingly. In revision of many patients who have had their rhinoplasty performed in the Middle East, we have noticed an unappealing pinched look to the middle third of the nose, which usually appears after a year or two postoperatively. This indicated over resection of the upper lateral cartilages without reconstituting the internal nasal valve appropriately. Although the nose may look pleasing upon the termination of the procedure, a poor long-term result is usually resulted.

The lower lateral cartilage of the Middle Eastern nose is usually wider, flatter, and weaker than the Caucasian nose. Although during a conventional tip refining maneuver such as the cephalic trim a minimum of 6mm width of lower lateral cartilage must be preserved, in the Middle Eastern patient we prefer a wider preservation to prevent collapsing of the external valve and notching of the nostrils. In select cases the external valve must be reinforced with cartilage grafts to achieve a structurally sound and aesthetically pleasing result. It must be emphasized that although the ligamentous attachments of the tip to the overlying skin and the intercartilaginous ligamentous attachments are considered a “minor tip-supporting” component as described by Tardy, these play a much more important role in the tip support of the Middle Eastern nose. Attention to this variation is crucial in preventing tip collapse in this patient population [2].

**Nasal Bones**

Longer nasal bones in the Middle Eastern population may require that they have intermediate osteotomies in addition to the conventional medial and lateral osteotomies to achieve narrowing, correction of a crooked nose, and closure of the open roof caused by hump reduction. It is very important not to over resect the dorsal hump causing a feminize look to the male Middle Eastern patient [3]. This is an issue we encounter often when seeing male Middle Eastern patients seeking revision rhinoplasty due to dissatisfaction caused by a feminized nose.

This review is not intended to be a comprehensive treatise on every variation associated with the Middle Eastern nose. Many other concepts and variations (alar base width, deep radix, etc.) exist and we invite the interested reader to consults the textbooks on the topic. The purpose of this manuscript is to call the attention of the rhinoplasty surgeon to the presence of these variations and the need for further study and mastery of the related techniques.

**Discussion**

Conventional and basic rhinoplasty teaching is centered around the Caucasian female nose. These concepts and technique cannot be applied to every ethnicity and gender without due variation. A one-size-fits-all rhinoplasty approach is fraught with dissatisfaction and complications [4]. A thorough knowledge and mastery of the ethnic variations in the Middle Eastern population is of paramount importance when consulting a patient for primary rhinoplasty. A complete and systematic nasal and facial analysis as well as a comprehensive understanding of the patient’s wishes is crucial in achieving optimal results.

**References**


