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INDIAN NOSE – A CHALLENGE IN PRIMARY COSMETIC RHINOPLASTY. HOW WE DID IT!

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ABSTRACT
Primary cosmetic rhinoplasty refers to the surgical manipulation of previously unoperated nose for esthetic enhancement. The main objective in a primary rhinoplasty is controlling shape, definition, rotation and projection of nasal tip while preserving its integrity. The Indian nose presents a plethora of variations from the 'much sought after' Caucasian nose. The Surgical techniques used are Nasal tip plasty, dorsal hump downsizing and septoplasty were carried out with open rhinoplasty. open rhinoplasty is a versatile procedure and was considered for the patient as nasal tip plasty, dorsal hump downsizing and septoplasty was planned. Thus it was concluded that Open rhinoplasty offered better visualization, improved access and reduced surgical time.

INTRODUCTION

The nose has a key position in the overall aesthetics of the face. [1] A beautiful nose is one that is pleasing to the eye when viewed in isolation, but does not distract from the eyes and mouth. An unsatisfactory nose is one that draws the observer's eye from aforementioned feature of non-verbal emotion.

Since the time of Papyrus nasal deformity correction was practiced surgically.[1,2] The word 'Rhinoplasty' is derived from two greek words, 'rhino' meaning nose and 'plasticos' meaning to shape or mould.

For rhinoplasty in Indian patients, one must evaluate and plan aesthetic goals, which mostly deviate from the Caucasian nose. Open or external rhinoplasty is an excellent choice in patients who require multiple procedures on the nose. [8]

CASE REPORT

An eighteen year old male patient presented to our department with the chief complaints of a deformed nose and desire to undergo surgery.

Pre-operative evaluation

On frontal view, the nose showed a very prominent hump on the dorsum and a deviated nasal septum. (Figure 1) Radiological evaluation showed a mild degree of deviated nasal septum. Operative goal was to reduce the nasal dorsal hump, remove the septal deviation and define the tip.

Surgical plan

1. Open rhinoplasty with transcolumellar and rim incisions
2. Septoplasty with cartilage harvest
3. Dorsal hump reduction
4. Spreader graft for dorsal and columellar support
5. Nasal tip derotation

Surgical technique

Patient's surgery was planned under general anesthesia. Under sterile conditions, the nasal incision markings were done. The mixture of 2% lignocaine, 0.5% bupivacaine, 1:100000 adrenalin and 1ml of hyalase was prepared and injected locally. Transcollumellar incision and rim incisions were placed. (Figure 2) Mucochondral flap was reflected upto the dorsal hump. Deviated nasal septal cartilage was removed (fig 3), reshaped and used as a spreader graft to increase the angle between dorsal septum and the upper lateral cartilage ,also aids in supporting the dorsal septal cartilages (Figure 4 and 5).

Dorsal hump was reduced using a nasal rasp. Suturing was carried out using PDS 2 material (Figure 6). Bolster sutures were placed at either side of nasal ala. Post surgery stent was placed. Patient was followed up at regular intervals (Figure 7).

CLINICAL PHOTOGRAPHS

Figure 1.

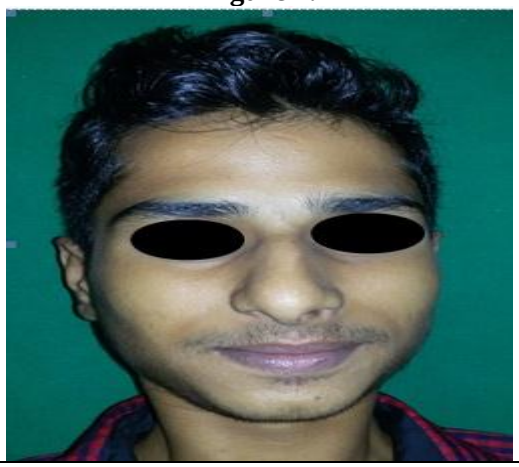


Figure 2.

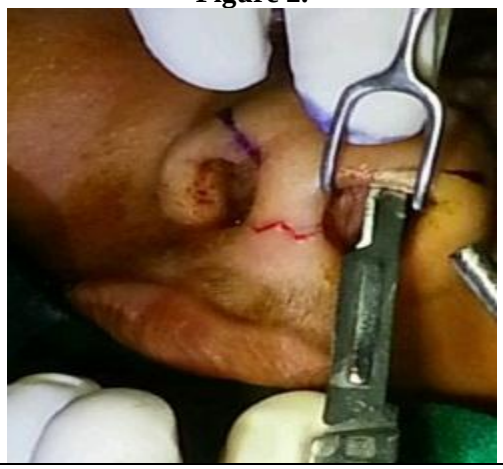


Figure 3.

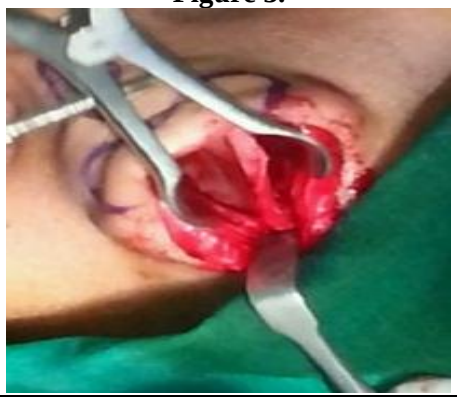


Figure 4.

Figure 5.

Figure 6.

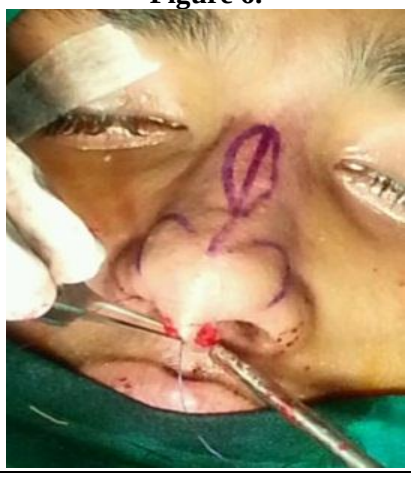
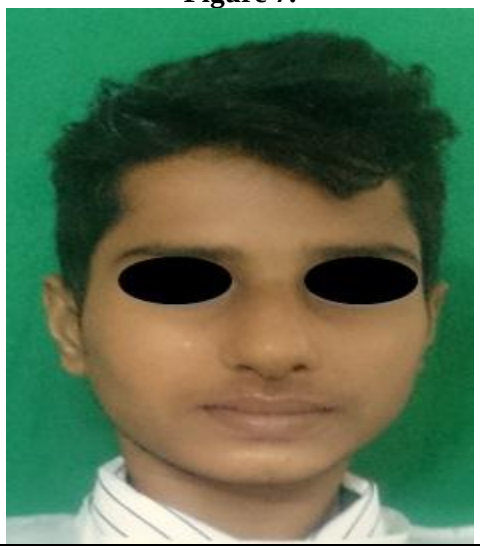


Figure 7.



DISCUSSION

The nose is the key element of beauty which is universal and generally involves harmony, balance, regularity, and poise [3]. The nose, being the center stage of the face, can appear larger, wider, thicker, longer, or higher than what is considered an accepted norm, and must be in harmony with the face or type of face, so that it is considered attractive in a theoretical sense [3,2]. Beauty is in the eyes of the beholder and therefore assessment, surgical procedures, and outcomes must be practical. The European noses have been portrayed as being straight with a narrow nasal bridge, a well-defined and projecting nasal tip, alar refinement, and a nasolabial angle of about 90°. People belonging to the ethnic minorities may feel set apart due to 'nonstandard appearance'. These patients may desire nasal alterations to bring them closer to what they have come to accept as beautiful or desirable [3].

The cosmetic objective of the person who desires to blend in, and look like the majority, are radically different from the person who wishes to have a more attractive nose without losing ethnic character. These desires and expectations need to be clearly understood preoperatively so that the operation will be appropriate [3, 1].

The most characteristic presentation of Indian patients is the presence of a prominent bulbous tip with thick sebaceous skin, especially on the tip. [3]. The nasal bones are usually broad with a very prominent hump, which is usually cartilaginous and bony. This hump is also associated with a typical droopy nose, which droops further on smiling because of the prominent effect of the depressor septi nasal muscle. In turn this gives an over projected look to the nasal tip and also makes the dorsum look more prominent than usual [4]. Sometimes one finds a deficiency of the alar cartilages, causing a weakness in the tip area as well. This group of patients presents with a wide range of problems; requiring surgeries which might include reduction of the dorsum and lateral/medial osteotomies to narrow the bony vault, defining the nasal tip and debulking the fibrofatty tissue overlying the cartilages [3,4]. The presence of a prominent dorsal hump is one of the main reasons that patients seek cosmetic rhinoplasty. Dorsal surgery has been traditionally confined to simple hump trimming and leveling the nose in a profile view [4].

Primary cosmetic rhinoplasty includes open and closed rhinoplasty. [8] Closed rhinoplasty is done to alter the shape of nose via endonasal surgical access. The most difficult challenge of the closed rhinoplasty approach is to achieve a predictable and desired alteration of both bony and cartilage structures via minimal direct visualization of altered structures in their anatomic passive relationships [5, 8].

Originally the closed technique was predominantly a reductive technique involving dorsal reduction and nasal osteotomies. Nasal tip modification was considered difficult and only amenable to minor changes. An advantage of the closed rhinoplasty technique is the speed, lesser dissection, and absence of a skin incision [8].

The transcolumellar incision with bilateral marginal extensions, also described as the open rhinoplasty technique, has become progressively popular since the 1980s.

The open approach has allowed more rapid understanding of the anatomy by observing students, translating into a greater number of surgeons who acquire the skills and interest for this surgery. This flap allows the placement of complex grafts (shield, columella, tip, supra tip, ala, spreader, and so forth) under direct vision. The greater visibility of the open rhinoplasty also facilitates soft-tissue modification of the nasal tip [5, 8].

Concomitant septoplasty is frequently performed in the patient undergoing primary open rhinoplasty.[9,8]

The septal cartilage is approached for function (deviated septum) or used as a donor site for cartilage reconstruction for the tip, ala, columellar strut, or spreader grafts. Disadvantages of the open rhinoplasty technique include slightly increased operative time for flap elevation, the presence of the transcolumellar scar, and paresthesia of the nasal tip [9, 7].

CONCLUSION

Open rhinoplasty offered better visualization, improved access and reduced surgical time for combined tip plasty, septoplasty and dorsal hump downsizing.

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