

Secondary Genioplasty for the Treatment of Chin Deformity After 12-year malpractice Genioplasty and rhinoplasty in an Iranian woman: a rare case report

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Abstract

Facial aesthetics play an important role in the personality and beauty of a person. A 42-year-old woman who had a 12-year history of rhinoplasty before visiting us that her surgeon did an extraoral genioplasty by grafting excess cartilage of her nose to chin for esthetic reasons. The patient had a deformity that resulting soft tissue ptosis in the chin. To correct this, we removed grafted cartilages from the chin then performed a routine advancement genioplasty. Finally, we did bone grafting among advancement operations. Thus, we made the facial contour of her face appear slenderer and smooth after surgery. The surgeon must be aware of possible long-term complications.

Keywords: Genioplasty, Chin, Deformity

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Introduction

Facial aesthetics play an important role in the personality and beauty of a person ¹. One of the most dominating features in the face is chin projection and shape. It is regarded as a significant characteristic of facial attractiveness ².

Symmetry and harmonious proportion of the chin to the upper and middle third of the face are very important. Significant deformity in the chin can give an unaesthetic look in an otherwise aesthetically pleasant facial profile. Chin deformities can be defined as (a) excessive chin, (b) deficient chin, (c) asymmetrical chin, or a combination of these ³. Surgical alteration of the chin has been used for many years to achieve proportional lower third of the face to the upper and middle third of the face ⁴.

A common surgical procedure used by maxillofacial surgeons is genioplasty ⁵. There are different types such as advancement, rotational, setback, alloplastic, and reduction genioplasty ⁶. Genioplasty can be done alone or in conjunction with other osteotomies to attain better chin symmetry ⁷. Most of the changes in the chin are achieved in a single-step surgery. Hofer performed sliding genioplasty for the first time to advance the receding chin by using an extraoral approach ⁵.

Converse published his work on chin augmentation using bone graft through an intraoral approach ⁸.

Genioplasty has a steep and long learning curve, and the complication rates range from 3% to 30% with the average of 10% by a plastic surgeon survey ⁹. Most common complications are sensory deficits in the chin (6.46%) followed by infection (5.95%) ¹⁰. The objective of this study was to describe a secondary Genioplasty for the Treatment of Chin deformity after 12-year malpractice Genioplasty and rhinoplasty in an Iranian woman.

Case

A 42-year-old woman who had a 12-year history of rhinoplasty before visiting us that her surgeon did an extraoral genioplasty by grafting excess cartilage of her nose to chin for esthetic reasons. She desired to have a normal and slenderer chin. Despite favorable outcomes in the previous surgery of the chin in the initial years, the patient had a deformity that resulting soft tissue ptosis in the chin that was presumed to be the major cause of her unsatisfactory outcome due to deformity of grafted excess cartilage of her nose to chin (excess cartilage of her nose comes from her rhinoplasty) after 12-year postoperative (Fig 1).

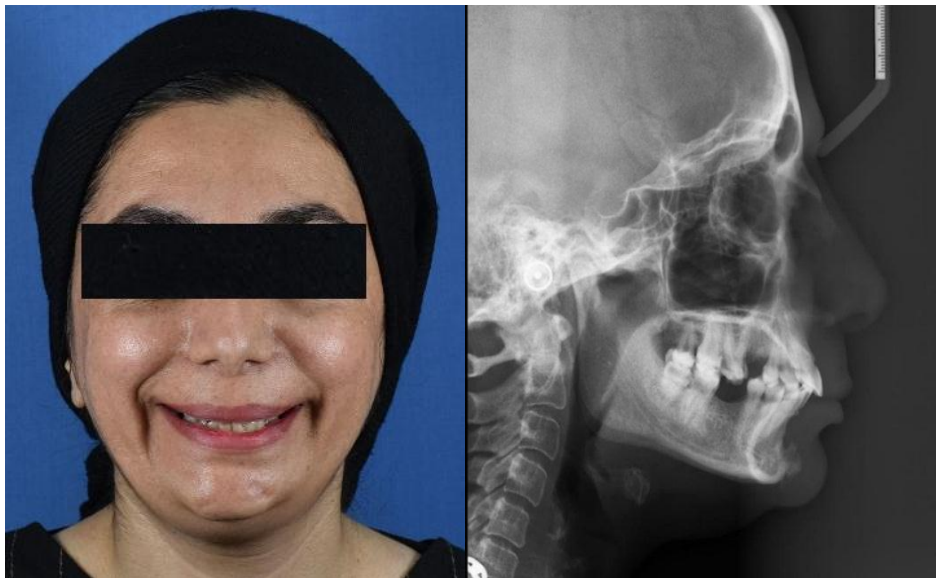


Figure 1: A 42-year-old woman who had a 12-year history of rhinoplasty

To correct this, we removed grafted cartilages from the chin then performed a routine advancement genioplasty. Finally, we did bone grafting among advancement

operations. Thus, we made the facial contour of her face appear slenderer and smooth after surgery ([Fig. 2](#)).



Figure 2: Operation persuader for correction of deformity

We performed histopathological analyzes on removed grafted cartilages from the chin to assuring nasal origin of her extra cartilages from the chin. The results confirmed her acclaim about malpractice genioplasty (Fig 3). Figure4 shows good results and correction of chin deformity after the genioplasty.



Figure 2 : particles of deformity for pathological assessment

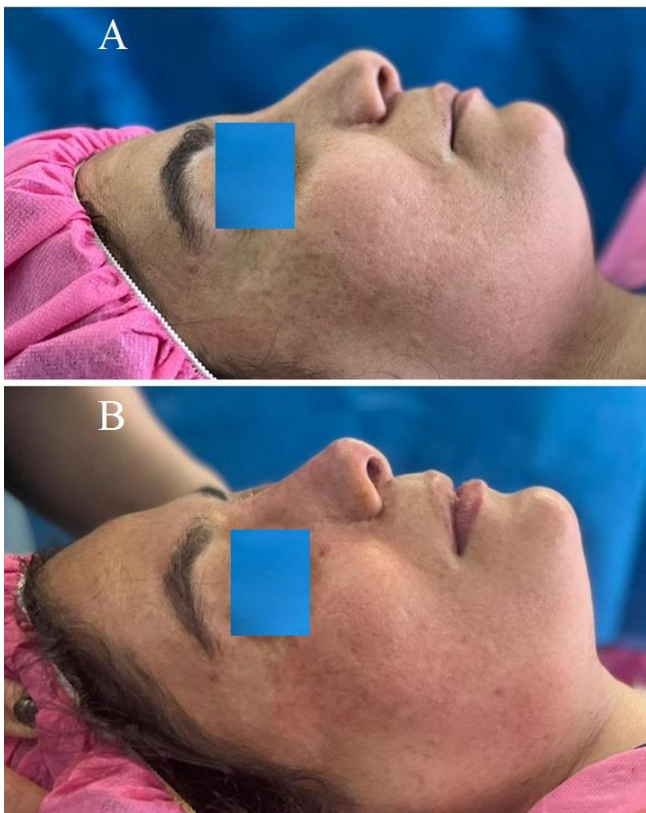


Figure 3 : A : before surgery, B: after surgery for correction of chin deformity.

Discussion

Possible complications of genioplasty are bleeding, mandibular fracture, mental nerve lesion, damage to tooth roots, bone resorption of the mobilized segment, failure to stabilize the osteotomized segment, and ptosis of the lower lip¹¹.

Genioplasty is generally done to treat a number of abnormalities of the chin, cases of mandibular advancement or setback, correction of vertical height, and transverse asymmetries. Although some studies recognize that the use of alloplastic implants for chin augmentation is technically easy to perform and presents a low rate of complications, most literature reports insist that the basal osteotomy of the chin offers more advantages. This is due to its versatility, predictability of soft tissue contour, higher rate of patient satisfaction, and low incidence of postoperative complications¹².

Different techniques as well as the associated advantages and disadvantages have various complications. The augmentation techniques with different materials in plastic surgery take a wide range. The transplantation of tissues has therefore been wrongly established, which is removed in the context of a simultaneously carried out rhinoplasty. As an indication for cartilage transplantation according to Nasenhöckertraferung, Mottura and KaracaaGlan add the slightly pronounced microglia at sufficiently large nasal high presence. Otherwise, an alloplastic implant is used. The placement of the cartilage can, as described by Mottura, can be subperiosteal or to KaracaoLlan epiperiosteal. A bone erosion, as often described after silicone implantation from Friedland and Matarasso, does not occur after placing the cartilage transplant after review of the literature sources¹³⁻¹⁴.

If the cartilage transplant cannot be transplanted as a whole due to its morphology, the possibility of crushing is available. This can be done by cutting or mortar. The resorption rate after this procedure within the first 6 postoperative months is estimated at 25% of the output volume. A slight overcorrection is therefore considered necessary¹³.

Among 200 cases treated by genioplasty, Richard et al reported only 6 complications. The cases reported in the present study showed rare complications that A 42-year-old woman who had a 12-year history of rhinoplasty, surgeon placed extra oral genioplasty by grafting excess cartilage of her nose to chin for esthetic reasons. The patient had a deformity that resulting soft tissue ptosis in chin that was presumed to be the major cause of her unsatisfactory outcome due to deformity of grafted excess cartilage of her nose to chin (excess cartilage of her nose comes from her rhinoplasty). The transplantation of

tissues has therefore been wrongly established, which is removed in the context of a simultaneously carried out rhinoplasty. Here, it is natural in terms of cartilage tissue. This is forecast in particular because of its opposite bones' lower absorption behavior as advantageous. In addition, both interventions occur sometimes without significant additional burden on the patient and both add themselves to the aesthetic improvement of the face profile.

Lazar et al.¹³ represented a rare case of an intraosseous mucocele following chin augmentation by a nasal osseocartilaginous graft. This case was reported as one of three manifestations of a respiratory implantation cyst. Its origin is most likely based on epithelium-like cells that have been incompletely removed from the resected nasal hump. Although severe complications of this technique have rarely been described, the surgeon must be aware of possible long-term side effects and should meticulously remove adherent nasal mucosa from the graft.

Highlights

What Is Already Known?

Facial aesthetics play an important role in the personality and beauty of a person.

What Does This Study Add?

The surgeon must be aware of possible long-term complications.

Authors' Contributions

Concepts, writing and editing this case report: Nima Sadeghi.

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Conflicts of Interest Disclosures

None.

Consent For Publication

I declare consent for publication.

Ethics approval

Not applicable

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