

## 46 How to Minimize Inherent Contradiction in Facelift Operation Focusing on a Combined Method with Facial Bone Reduction

Kiyotaka Watanabe

### 46.1 Introduction

For a long time, the author has doubted the effects of various facelift operations currently performed for rejuvenation: The existing standard facelift operations result in larger facial surfaces owing to pulled skin although wrinkles and drooping are eliminated.

Since it is widely believed across the world that the contour of a young face is sharp and small, to create an enlarged facial surface is, in some sense, to create an aged face, thus decreasing the rejuvenative effects expected in facelift.

### 46.2 Young Female Face and Its Changes with Aging

A young woman has a small, full face with a round or oval contour, and there are no wrinkles or drooping. This can be recognized in various paintings across the world, and it is also true for Noh masks or traditional Japanese paintings, making it a universal recognition (Fig. 46.1).



**Fig. 46.1.** **a** A Noh mask of a young woman. **b** A Japanese painting of a young woman's face



**Fig. 46.2.** **a** A facial contour and a facial surface of a young woman. **b** A facial contour and a facial surface of an old woman

#### 46.2.1

##### Changes of Facial Contour with Aging

Owing to degeneration of soft tissue, including skin, fascia and muscles, elasticity is lost. At the same time, changes of accumulated areas of subcutaneous fat make the middle part of cheeks indented and the lower part of cheeks bulky and ptotic. Ptotic cheeks make a contour of the lower third of a face squared. These changes make a facial contour larger and angular with aging.

#### 46.2.2

##### Changes of Facial Surface

Decreased elasticity owing to degenerated muscles of facial expression, fascia and skin creates fine wrinkles and drooping on a facial surface, and irregularities of a surface become conspicuous. Specifically, changes caused by aging first appear around eyelid areas because skin at eyelids is thinnest in a face.

At the same time, large grooves such as infraeyelid, and nasojugal and nasolabial folds become deep. Furthermore, a retreated hairline at the frontal and lateral sides help produce an impression that facial surface is wider. These features are the specific characteristics of an aged face (Fig. 46.2).

#### 46.3

##### Inherent Contradiction in Facelift Operation

Usually, in a facelift operation performed for rejuvenation, drooping cheeks are eliminated by pulling drooping soft tissue back and upward. In this method, a contour is corrected into a round shape to a certain degree, and wrinkles and irregularities on a facial surface are decreased. But by pulling soft tissue backward, the hairline of a forehead in a front view is not only retreated, but sideburns in a profile view are also retreated; thus, an enlarged facial surface unavoidably results (Fig. 46.3).

This result inherently contradicts our common understanding that a small face is a young face, and this phenomenon reduces rejuvenative effects expected in facelift.



**Fig. 46.3.** **a** Preoperative and **b** postoperative conditions. Changing of a facial contour and facial surface by facelift operation in frontal views. **c** Preoperative condition and **d** postoperative condition. Changing of a facial contour and facial surface by facelift operation in profile view. In both views, drooping and wrinkles are eliminated but an enlarged facial surface can be recognized

#### 46.4

##### Ancillary Procedure to Solve Inherent Contradiction

Some ancillary procedures, as mentioned in the following, have been attempted to solve an enlarged facial surface, an inherent contradiction in facelift:

1. Hairline incision
2. Liposuction
3. Micro hair graft
4. Reconstruction of sideburns using rotation of a local flap

Now, I will focus on facial bone reduction as the fifth procedure, which has never been combined with facelift to solve inherent contradiction.

#### 46.5

##### Facial Bone Reduction Combined with Facelift

Since Orientals belong to the brachycephalic group, the face is wider than that of Westerners, who belong to the dolichocephalic group: thus, Orientals often have protruded malar and mandibular angles, and this is the cause for a flat and large-looking face in a front view. Retreated sideburns after facelift will emphasize these characteristics, and protruding facial bone and mandibular angles may disturb easy lifting of soft tissue.

For these patients, the author tried to decrease protrusion on a facial surface not only to make it smooth but also to make an entire facial contour smaller than

the preoperative one. For this purpose, with the simultaneously combined malar and mandibular angle reduction, it is possible to obtain far better rejuvenative effects using the same incision as for facelift to avoid enlargement of a facial surface after facelift procedure.

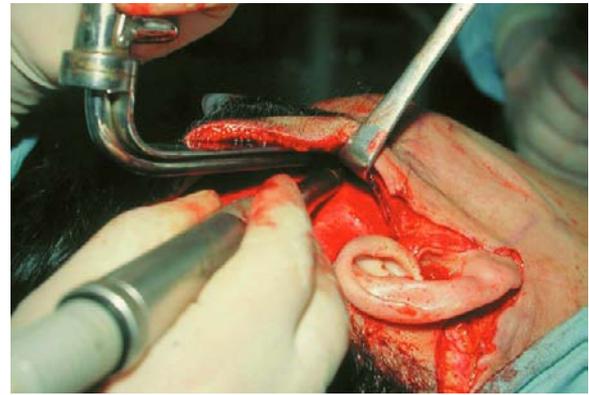
An additional favorable side effect is that partial undermining of periosteum makes displacement of soft tissue easier.

The facial bone reduction is done under direct vision, so it is very likely to prevent facial nerve injury.

## 46.6

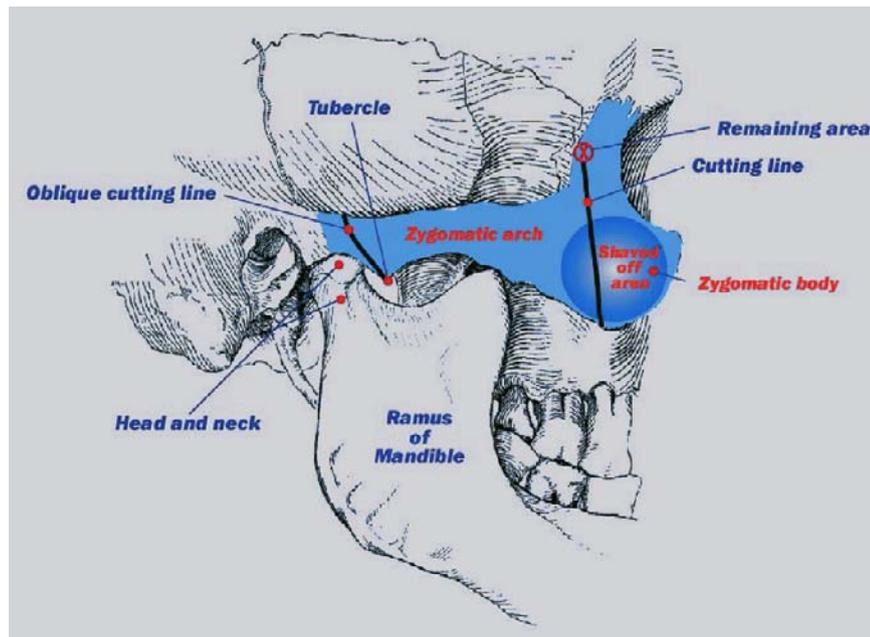
### Malar Bone Reduction

In a case where malar bone protrusions are noted, radiographs should be taken preoperatively in the arch positions and water positions. On the basis of the condition of the malar bodies and arches, it is necessary to plan how much and where to shave off the bone. First the malar body is exposed and shaved down thoroughly with a round burr, and the region just before the synthetic line of the body and arch is cut completely with a reciprocating saw, and at 1–2 cm of the upper edge of the zygomatic body it is not cut completely.



**Fig. 46.4.** The procedure of malar bone reduction performed along with facelift. The malar body was shaved down with a round burr

Next, the tubercular region of the arch is bluntly exposed and obliquely cut completely. Then, a greenstick fracture is made to get movability of the arch. The cutting edges of the upper and lower sides of the arches are bluntly displaced, and the middle part of the arch is indented and fixed. Wiring or a miniplate



**Fig. 46.5.** Shaving area and place at which malar bone is cut



**Fig. 46.6.** A 48-year-old woman with malar bone protrusion. Note the width of the face in the frontal view became narrow in the postoperative condition. **a** Preoperative condition and **b** postoperative condition



**Fig. 46.7.** A 45-year-old woman showing the condition of malar bone protrusion. **a** Preoperative condition and **b** postoperative condition



**Fig. 46.8.** A 63-year-old woman showing the condition of malar bone protrusion. **a** Preoperative condition and **b** postoperative condition



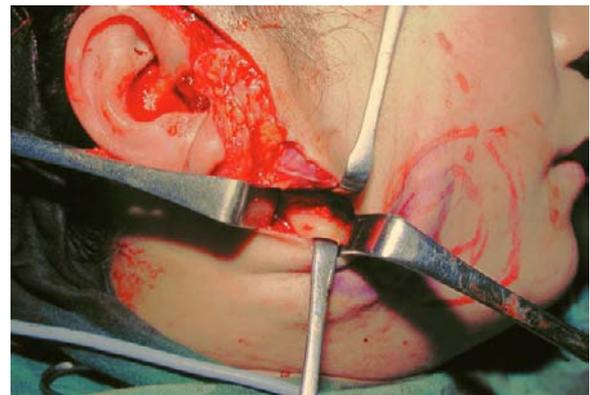
**Fig. 46.9.** Preoperative and postoperative conditions of malar bone reduction performed along with facelift

is used if necessary (Figs. 46.4, 46.5). Several cases are illustrated in Figs. 46.6–46.9.

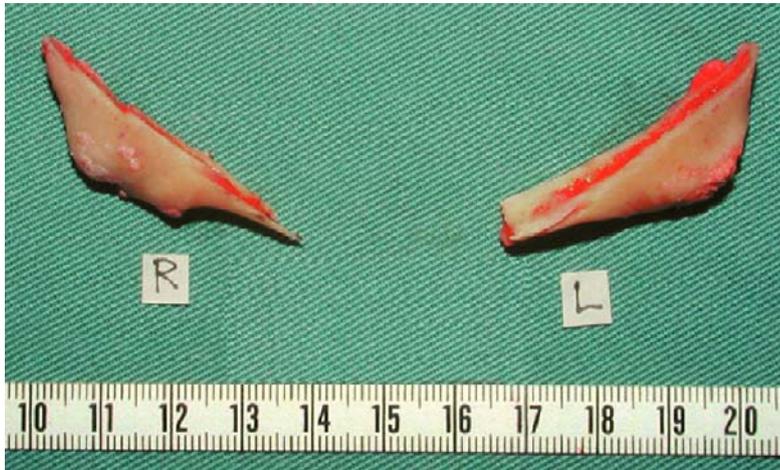
#### 46.7

##### Mandibular Angle Reduction

Frontal cephalograms should be taken before operation to check for the degree of flaring, and mandibular panoramagraphs for the degree of angle protrusions. On the basis of the condition, it is important to make a preoperative plan concerning where and how much to eliminate. Superficial musculo-aponeurotic system (SMAS) undermining near to the angles performed at the time of facelift could provide relatively easy vision of mandibular branches of facial nerves. With great care not to damage these branches, the origin of the masseter muscle is excised a little bit for a full subperiosteal exposure of the angles to be excised, and bone is excised in a full thickness with an oscillating or a reciprocating saw. Direct vision allows a surgeon to eliminate residues completely, avoid a resultant linear contour, and make natural mandibular plane angles. In principle, the masseter muscle is not excised except when it is too thick (Figs. 46.10, 46.11). Some cases are illustrated in Figs. 42.12 and 46.13.



**Fig. 46.10.** The procedure of angle reduction performed along with facelift. The protruded angle is exposed under direct vision



**Fig. 46.11.** The resected bone of both angles



**Fig. 46.12.** A 45-year-old woman who has protruded mandibular angles. **a, b** Pre- and postoperative conditions in frontal view. **c, d** Pre- and postoperative conditions in profile view. You can note that the postoperative facial contour is smaller than the preoperative one



**Fig. 46.13.** A 47-year-old woman who has extremely protruded mandibular angles. **a, b** Pre- and postoperative conditions in frontal view. **c, d** Pre- and postoperative conditions in profile view. In the postoperative condition shown in the profile view, you can note the mandible became smooth and natural

## 46.8

### Advantages and Disadvantages

The advantages are as follows:

1. It is possible to perform additional procedures helpful to make a facial contour smoother and smaller and to avoid having a larger facial surface. In this way, we can minimize the inherent contradiction in facelift and get more effective rejuvenative results in facelift.
2. Effective rejuvenative effects can be expected in making a small and smooth facial contour without extensive undermining; thus, less undermining of soft tissue is required, and less damage is caused to

patients who are already in the degeneration stage, and acceleration of degenerative change of soft tissue is avoided.

3. Facial bone reduction can be safely performed under direct vision.
4. The facial bone reduction procedure does not require creation of additional scars.

The disadvantages are as follows:

1. The operation time is somewhat prolonged, but a moderate undermining may set off this disadvantage compared with extensive undermining.
2. When combined with facial bone reduction, general anesthesia may be required.

## 46.9

### Discussion

The main objective of facelift has been to effectively eliminate wrinkles and drooping of a face; however, a resultant enlarged facial surface that possibly creates a larger-looking face has been neglected for a long time, and no discussion has been held so far.

Also, a hairline incision to avoid hairline retreat is not adequate for Orientals, who easily have invisible scars. Various rotation flaps have been used to avoid an unnatural look that may be caused by disappeared sideburns. Hinderer and some others have introduced various methods useful for making new sideburns.

In my view, these ideas put emphasis on maintaining the facial balance and conditions as naturally as possible, but not on lessening a facial surface for a small-looking face.

The drooping lower third of a facial contour becomes smaller, and the facial surface becomes smooth to a certain degree by facelift. Liposuction, when used for patients with highly accumulated subcutaneous fat at cheeks and submandibular regions, is effective as an additional method, and is now frequently combined with facelift.

For Orientals, who belong to the brachycephalics, many of them have malar and mandibular angle protrusions, and facial bone reduction has been performed for the aesthetic purpose.

Onizuka and I performed a malar reduction for aesthetic purposes in 1983 for the first time in the world. Since then, many surgeons have attempted and reported various malar reduction techniques for aesthetic purposes [1–7].

In contrast, in the case of Westerners, who belong to the dolichocephalics, malar augmentation is frequently used for the aesthetic purposes. Gonzalez Ulloa [8] reported in 1974 that he performed malar augmentation with facelift. Hinderer [9] and other surgeons also reported malar augmentation using prostheses for the aesthetic purpose.

Also, many surgeons, including Yang [10], Baek [11] and Deguchi [12], reported various techniques or mandibular angle reduction for the purpose of treating square-looking mandibular angle protrusions and obtaining a smaller facial contour too.

However, no report was found concerning facelift combined with mandibular angle reduction to avoid the inherent contradiction of an enlarged facial surface. Nagase et al. [13] recommended SMAS lift for elderly people following angle reduction in order to correct redundant skin around the mandibular region, but they did not perform facial bone reduction simultaneously with facelift to prevent enlargement of a facial surface.

As I mentioned earlier, Orientals, who belong to the brachycephalics, usually have flat faces, and malar and mandibular angle protrusions. For these patients, displacing soft tissue is difficult and a resultant enlarged facial surface may sometimes emphasize bony protrusions. I would like to point out that with my method, displacing soft tissue becomes easier although an extensive undermining is not required, and a resultant small and smooth facial contour could enhance rejuvenative effects of facelift.

---

## 46.10

### Conclusions

In the traditional facelift, too much emphasis seems to be placed on how to undermine soft tissue and effectively pull it in order to decrease wrinkles and drooping. Although wrinkles and drooping are improved by pulling skin, and a contour of the lower third of a face becomes somewhat smaller in front views, a retreated hairline results in a larger surface. There is a risk of a face becoming larger in both front and profile views.

This contradicts with our common and traditional understanding that a young face is small, thereby reducing the effects of rejuvenation, the objective of facelift.

Under such circumstances, the author tried not only removing wrinkles and drooping, but also minimizing the contradiction by undermining moderately, and creating a face as small as possible.

My idea will minimize the inherent contradiction of facelift, and produce better rejuvenative effects than the standard facelift.

I believe this will be one of the important ideas. The objectives of rejuvenative surgery are not only to decrease wrinkles and drooping of a face with minimal damage to soft tissue but also to try to make a face smaller and smoother.

---

### References

1. Onizuka, T., Watanabe, K., et al., A Reduction Malarplasty, *Aesth. Plast. Surg.*, 7:121–125, 1983
2. Baek, S.M., Chung, V.D., Kim, S.S., Reduction Malar Plasty, *Plast. Reconstr. Surg.*, 88:53–61, 1989
3. Sumiya, N., Itoh, Y., Ozumi, K., Reduction Malarplasty, *Plast. Reconstr. Surg.*, 113:1497–1499, 2004
4. Sumiya, N., Watanabe, K., et al., Reduction of Zygoma for Cosmetic Purpose, *Aesth. Plast. Surg.*, 14:1–9, 1993
5. Watanabe, K., Cosmetic Contouring of the Midface, *Technique for Sculpturing the Malar Prominence*, *Problem in Plastic & Reconstructive Surgery*, December 1991, Lippincott, Philadelphia

6. Watanabe, K., Reduction Malar Plasty, *Aesth. Plast. Surg.* 7:121-125, 1983
7. Whitaker L.A., Temporal and Malar-Zygomatic Reduction and Augmentation, *Cir. Last. Surg.*, 18:55-64, 1991
8. Gonzalez Ulloa, M., Building out the Malar Prominences as an Addition to Rhytidectomy, *Plast. Reconstr. Surg.*, 3:293, 1974
9. Hinderer, U.T., Malar Implants for Improvement of the Facial Appearance, *Plast. Reconstr. Surg.*, 56:157, 1975
10. Yang, D.B., Park, C.G., Mandibular Contouring Surgery for Purely Aesthetic Reasons, *Aesth. Plast. Surg.*, 640, 2001
11. Baek, S.M., Chung, V.D., Kim, S.S., The Prominent Mandibular Angle: Preoperative Management, Operative Technique and Result 42 Patients, *Plast. Reconstr. Surg.*, 83:272, 1989
12. Deguchi, M., Iio, Y., et al., Angle-Splitting Osteostomy for Reducing the Width of the Lower Face, *Plast. Reconstr. Surg.*, 99:1831, 1997
13. Nagase, T., Yoshimura, K., et al., Angle-Splitting Osteostomy Followed by Facelift for Elderly Patients with Prominent Mandibular Angle, *Plast. Reconstr. Surg.*, 115:633-645, 2005