

How to Avoid Earlobe Deformation in Face Lift

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Abstract

Background During the postoperative period following a facelift, caudal extension of the earlobe secondary to pulling of the submandibular tissues can occur. This earlobe shape, often termed “pixie ear”, is unnatural, and patients often request its repair. The objective of this study was to design a modified facelift technique that provides natural, aesthetically acceptable, and long-lasting results.

Methods In patients with pixie ear secondary to classical rhytidectomy, we omitted the incision around the earlobe; instead, we interrupted it in front of the earlobe and finished it behind the earlobe, without fully dissecting the earlobe from its base. We then performed all required stages of the facelift: detachment of the cellulocutaneous flap, manipulation of the superficial musculoaponeurotic system, establishment of homeostasis, lifting of the cutaneous flap, and finally suturing of the retained edges of the skin onto the cartilage matrix of the pinna.

Results The above-described operative technique was used in 24 patients from October 2008 to January 2014. Long-lasting projected results were achieved in each case.

Conclusions The modified facelift technique described herein can be used to perform facelifts with a pre-existing

pixie ear, as well as to prevent the development of pixie ear.

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Keywords Face lift · Rhytidectomy · Superficial musculoaponeurotic system · Earlobe · Pixie ear

Introduction

In facelift procedures, the earlobe is dissected and separated from its base. It is then sutured at the end of the procedure so that its postoperative shape is natural and well rounded, without downward stretching due to pulling of the submandibular and cervical tissues. However, this technique does not always lead to the desired result. In some cases, the earlobe together with the cicatrices begins to slide downward. This process of earlobe elongation continues as long as the pull of the underlying tissues remains strong (Fig. 1).

Such extended or augmented earlobes, often termed pixie ears, are unnatural in appearance, and an undesired outcome of the facelift procedure. Women often conceal this defect with their hair or earrings; men have fewer options for concealment. Many patients thus request repair of the pixie ear. However, the classical operative techniques lead to additional visible cicatrices.

We designed a modified facelift operation that has made it possible to avoid pixie ear-like deformations and obtain natural, aesthetically acceptable, and long-lasting results. We herein describe this technique and its outcomes.

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Fig. 1 Example of a failed face lift

Materials and Methods

Operative Technique

The preoperative markings are shown in Fig. 2 and Video 1. A top-to-bottom incision was made in front of the base of the helix, extending around the tragus from the back, and proceeding from the intertragic notch in front of the earlobe, stopping at the lowest attachment point of the earlobe. The incision was then restarted at the lowest attachment point of the earlobe but from the back and proceeding upward along the projection of the retroauricular fold. Thus, the incision did not proceed around the earlobe, but was rather interrupted in front of the earlobe and finished behind it (Fig. 2a).

Next, mobilization of the earlobe was performed all the way to the cartilage matrix of the pinna. Detachment of the facial cellulocutaneous flap and submandibular and cervical areas as well as all other required manipulations of the superficial musculoaponeurotic system (SMAS) was completed (Fig. 2b). After establishment of homeostasis, the retained skin edge of the earlobe was lifted up together with the earlobe (Fig. 2c) and sutured to the solid cartilage matrix of the pinna with one or two interrupted sutures using 3/0 Vicryl and two cutaneous sutures using 5/0 Prolene in the front and back of the base of the earlobe. The frontal interrupted suture was situated in the intertragic notch (Fig. 2d). The wound that appeared after the folding of the earlobe was sutured using two to three interrupted stitches on the front and back surfaces of the earlobe (Fig. 2e). It was sometimes necessary to excise small triangular areas of the skin to adequately appose the wound edges (Fig. 3a). The pixie ear shape was thus transformed into a well-rounded earlobe (Video 1). The entire cellulocutaneous flap was then lifted upward and sideways. The

Fig. 2 Preoperative markings. **a** Intraoperative photo. Incision. **b** Intraoperative photo. Mobilization of earlobe, of whole skin cellulocutaneous flap. **c** Intraoperative photo. Earlobe and skin edge are lifted up. **d** Intraoperative photo. Moment of earlobe skin edge fixation to solid cartilage matrix. **e** Intraoperative photo. Moment of earlobe wound suturing from backside

excess skin was excised and the wounds were sutured. As shown in Fig. 4, the above-described operation technique can be outlined in the following manner: point A moves to point A1, and point B moves to point B1.

The indications for our modified facelift technique are as follows: congenital, traumatic, or iatrogenic augmented (extended) earlobes; large earlobes with a broad base requiring a reduction in height and width; and a coarse, deforming cicatrix below, behind, and on the surface of the earlobe caused by a failed facelift.

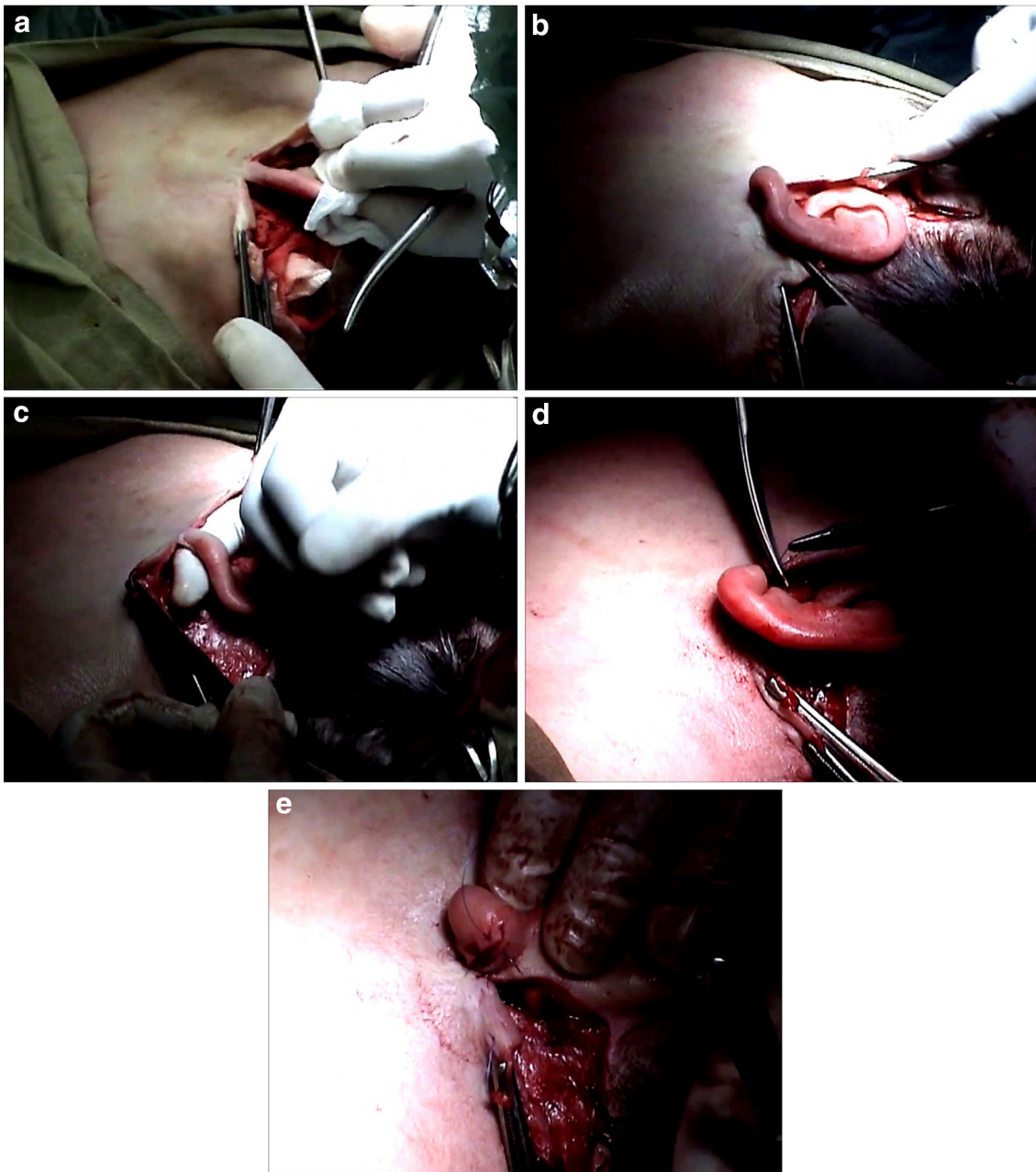
From October 2008 to January 2014, we performed 24 facelifts with the above-described modifications; 7 were primary operations and 17 were reoperations. All patients were female with an average age of 52 years. The patients' surgical characteristics according to age are presented in Table 1.

Results

We monitored the operative outcomes for 2.0–3.5 years in 5 patients, for 1.0–2.0 years in 8 patients, and for <1.0 year in 11 patients. In all cases, we obtained stable postoperative results: the earlobe remained well rounded, its base did not slide downward, and the cicatrices in the parotid area remained hidden. There were no indications of any complications related to this modified facelift. All wounds healed by primary intention, and the patients' social rehabilitation period did not exceed the normally expected limits (Figs. 5, 6, 7, 8 and 9).

Discussion

A number of anatomical and morphological studies of the ear and parotid areas have been performed. These reports have discussed the possibilities of surgical repair of the pinna in general and, in particular, for surgical antiaging procedures and cervicoplasty to alter its shape and standing [1, 2]. More recent specialized scientific literature on facelifts has dealt extensively with the negative postoperative aspects of such surgical procedures, namely the unnatural appearance of the operative outcome [3–10]. The most obvious characteristics of an artificial-appearing result include unnatural lifting of the lower part of the face,



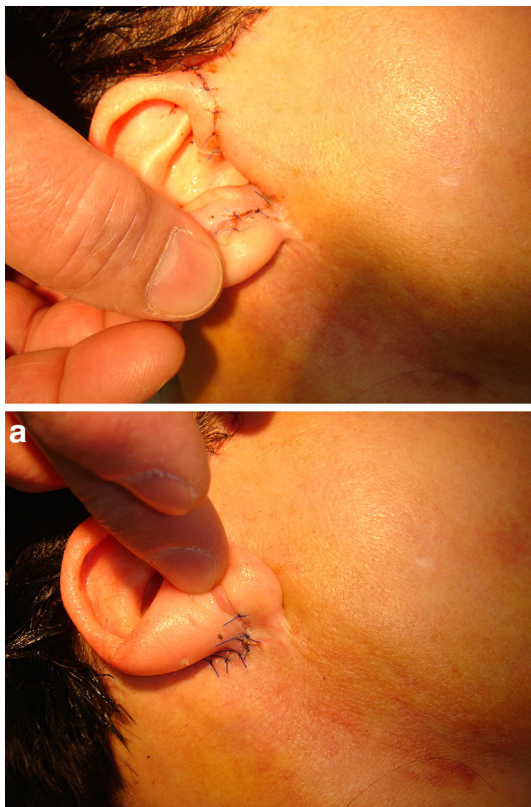


Fig. 3 Cicatrices on the front surfaces of the earlobe. **a** Cicatrices on the back surfaces of the earlobe

visible cicatrices in the front part of the face as well as below and behind the earlobe, and elongation and downward shifting of the earlobe. The principal cause of such deformations after rhytidectomy is excessive pulling on the base of the earlobe during the postoperative period, which may be particularly problematic if the mobilized flap of the submandibular or cervical areas (cutaneous and/or SMAS) is overstrained or sutured to the earlobe. Regardless of whether a facelift is performed using the classical techniques or short incisions (e.g. S-lift, minimal-access cranial suspension) or by tensioning or covering the SMAS, earlobe deformation is still possible because the tension of the SMAS and/or the skin below the earlobe might distort the lobe, resulting in the development of pixie ear. Correction of such a deformation is considered to be a difficult task, and suggested methods have included the V–Y flap, “Pac Man” flap, and thread facelift. Stuzin [1] suggested dissecting the lowest triangular earlobe edge and suturing it to the base of the pinna, thus achieving a well-rounded shape. Man [3] recommended suturing the mobilized cellulocutaneous flap of the submandibular and cervical areas and the SMAS flap to the mastoidal periosteum, rather than suspending it to the base of the pinna. The method proposed by Frishberg [8] involves creating a triangular de-

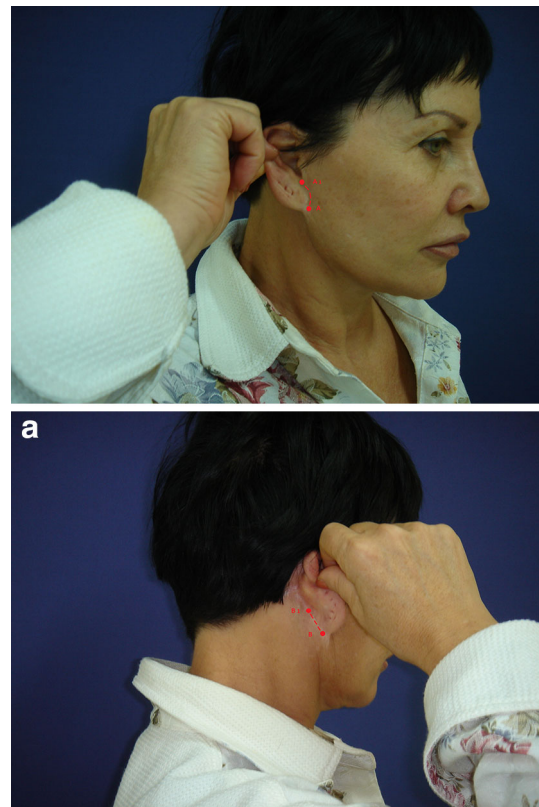


Fig. 4 Outline of the earlobe base transfer: Point A moves to point A1, **a** Outline of the earlobe base transfer: point B moves to point B1

epidermized area on the cutaneous flap already sutured in the area of the base of the ear and then suturing the base of the earlobe to it.

These suggested techniques are based on the clinical experiences of the authors and the results of anatomic and morphological studies. No such studies have involved patients who have undergone rhytidectomy. Such studies may provide a better understanding of the causes of pinna deformities, thus helping to develop more effective preventive measures.

Through many years of clinical practice, we have attempted almost all recommendations to prevent facelift-associated earlobe deformities and treat them through additional post-facelift surgeries. These measures, however, have not always been successful, which is why we have designed a technique involving the establishment of cutaneous support at the base of the earlobe that prevents its shape from changing after a facelift.

The main difference between our method and others is that in our method, the incision is not made around the pinna; that is, we do not edge the earlobe, but rather interrupt the incision in front of the earlobe and finish it behind the earlobe. Thus, the edge of the earlobe skin is left untouched at its base. At the end of the operation, this area



Fig. 5 Female patient, 52-year old.,- before operation, **a** the same patient, 5 days after, **b** the same patient 1 year after the operation



Fig. 6 Female patient, 59-year old, before operation, **a** the same patient 4 months after, **b** the same patient 4.5 years after the operation



Fig. 7 Female patient, 44-year old, before the operation, **a** the same patient condition after a facelift 5 years earlier, **b** the same patient 5 months after the operation, same earlobe pulled down



Fig. 8 Female patient, 47-year old before- condition after a facelift 7 years earlier, **a** the same patient 5.5 months after the operation

of skin (about 0.8–1.5 cm wide) is lifted upward, and the base of the earlobe is grasped and sutured to the solid base of the pinna. This cutaneous flap supports the base of the earlobe, serving as a counterweight to the tension of the lifted tissues and preventing the earlobe from sliding down. In cases of reoperation, this location may have pronounced cicatrices from the previous operation. We do not excise these cicatrices, but move them upward with the earlobe and suture them to the base of the ear. The cicatrices, sometimes quite large and coarse, can thus easily be concealed in the crease under and behind the earlobe and are not visible after the operation. They contribute to supporting the earlobe base, and the skin does not slide down during the postoperative period (Figs. 3, 4, 5, 6, 7, 8 and 9).

Several characteristic aspects of the herein-described facelift modification should be discussed:

1. The length of the lifted cutaneous flap is limited by the length of the stretched earlobe. That is why the main indication for this operation is considered to be a stretched earlobe of ≥ 2 cm. It might seem that a facelift within the 2 cm range is not sufficient to obtain a satisfactory outcome; however, our experience has shown otherwise. Repeated rhytidectomies do not, as a rule, require removal of large amounts of skin.



Fig. 9 Female patient, 55-year old, before operation, condition after a lower facelift 8 years earlier, a the same patient 4 days later. **b** same earlobe pulled down, **c** same patient 5.5 months after the operation

Table 1 Surgical characteristics according to age

Reason for treatment	Indications	Patients (n)	Age in years (n)		
			<45	45–55	>55
Face and neck skin wrinkles and soft tissue ptosis	Face and neck involutive changes and presence of pixie ear	7	1	2	4
Correction of pixie ear after unsuccessful facelift	Presence of pixie ear	4	0	2	2
Repeat facelift	Face and neck soft tissue ptosis, skin wrinkles, and presence of pixie ear	13	0	5	8
Total		24	1	9	14

Additionally, if the operation includes mobilization and SMAS lifting, tightening of the skin in the lower zone of the face and the neck bottom to top on 2 cm; that is, removing this volume of skin is more than adequate to achieve a good facelift result.

- Toward the end of the operation, the lower skin edge of the earlobe is sutured to the base of the pinna, whereas the earlobe itself is folded in half; therefore, the obtained punctured wound must be sutured on both the front and back. The resulting cicatrix on the front surface of the earlobe is usually situated in the projection of the intertragic notch and is perfectly inconspicuous in the postoperative period. The cicatrix on the back surface of the earlobe is not visible.
- One might assume that incomplete release of the detached cutaneous flap from the lobule of the pinna creates difficult working conditions deep within the wound, such as limitations in visibility, tissue mobilization, homeostasis, and application of stitches. In our experience, however, it is quite easy to adjust to this technique with no difficulties.

Conclusions

We have described a new facelift technique that prevents the development of or repairs an already existing pixie ear deformation. This face lift technique requires more experience and empirical data before it becomes widespread; however, we predict that this operation will be very useful in certain circumstances.

Conflict of interest The authors declare that they have no conflict of interest.

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