

A New Technique for Pixie Ear Deformity after Lower Facelift Surgery

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ABSTRACT

Background: Lower face and neck lift may be easily noticed by most plastic surgeons as well as other individuals, by spotting some peculiar landmarks. Besides obvious post-operative scars or other major post-operative complications, ear synkinesis, also called “operated look ear”, “stuck on”, “pulled” or “pixie” ear, is among the prominent features [1].

Treating ear synkinesis may be challenging and unsatisfactory for both patients and surgeons. It would be rather avoidable than correctable [2].

The reported technique is a simple modification of the incision around the ear lobe to prevent and treat pixie ear deformity that may occur following lower facelift operations.

Keywords: *Pixie ear deformity – Lower facelift.*

INTRODUCTION

Jowl and neck sagging are common bothering and unpleasant site for many women as they age. There are various treatment options including lower face and neck lift, preferred by a good percentage of females, due to its superior and longer lasting results, as compared to non-surgical interventions. The demand for this operation increases with individuals aging, and with the public familiarity about advances in cosmetic surgery [2,3].

Post-operative side effects are not uncommon with such tedious procedures, especially in the non-expert hands. Among the noticeable complaints following this procedure is the pixie look or ear lobe synkinesis [4]. Although many surgeons [2, 4-7] have addressed this problem, the complaint of the unnatural ear lobe look following lower facelift surgery still endures.

This deformity is caused by the extrinsic pull of the medial cheek and jawline skin flaps at the ear lobe attachment point, the “otobasion inferius” [4]. The tension results in the otobasion inferius

migrating from a posterior cephalic position to an anterior caudal position [8].

By modifying the incision around the ear lobe, we aimed to prevent pixie ear deformity after surgical lower facelift procedures.

PATIENTS AND METHODS

Twenty-three females who had lower facelift surgery from the period of January 2015 till January 2018 were included in this study. The patients were divided into Group A, included 11 patients with lower facelift using other technique(s), and Group B, included 12 patients who were surgically treated for lower facelift using our technique. The resultant scars and ear lobe shape were compared to other females who had undergone the same procedure using other traditional techniques.

In our study, all females included were non-smokers and non-diabetic, factors that could affect the aesthetic outcome of the wound scar.

The procedure was explained to each lady at the time of operation, and the possible side effects including the post-operative scar, as well as the methods to treat the outcome if it occurred.

Surgical technique:

Markings were done pre-operatively, and the ear lobe pulled downward to mark the reflection of the lobe extent and angle dimension to the adjacent area Fig. (1A). Pulling the ear lobe helps identify the extent of the pre-operative marking, which may be due to the presence of tiny unidentifiable ligaments reflecting the angle anchoring the ear lobe. Letting go of the pull on the ear lobe re-drapes and hides the lower part of the marking, which may be a good indication of the scar re-draping post-operatively Fig. (1B).



Fig. (1): (Left) pre-operative marking, (Right) post-operative scars marked.

A small V-shaped incision just at the most prominent area of ear lobe attachment to the facial skin, was done along with the classic pre-auricular incision for lower facelift. After full work of lower face-lifting, suspension sutures by propylene 3/0 were applied deep at the SMAS level just below the otobasion angle to the mastoid fascia, as well as subcutaneous sutures. The skin closed by simple interrupted stitches by propylene 5/0.

Post-operative photos in both groups were evaluated and scores given according to the expert opinion of five other surgeons. The evaluation of the post-operative results of the ear lobe look was settled as a score from 0 to 2; was taking:

0 = No noticeable ear lobe deformity.

1 = Mild ear lobe deformity.

2 = Noticeable pixie ear deformity.

Results were also evaluated after 6 months according to two recent key points that are essential to evaluate ptosis and pseudo-ptosis [9], which are also applied to assess "pixie" ear deformity.

These two points include:

A- Inter-tragal to Otobasion inferius distance (I-O distance) (cephalic).

B- Otobasion inferius to Subaurale distance (O-S distance) (free caudal segment).



Fig. (2): Four months post-operatively.

RESULTS

Post-operatively, the aesthetic results were equivalent between the both groups, and all patients tolerated both procedures well. All parameters were similar for both groups as regard ecchymosis, incidence of wound dehiscence. At 3 months, a significant greater improvement of scar and shape of ear lobe for the Group B, was noticeable by patients and their relatives that was approved by the expert opinion of five other surgeons.

The traditional incision for lower facelift surgery showed a pixie ear deformity post-operatively, but strangely enough, six of the eleven patients in Group A were not bothered with the look.

Results of our technique showed superior outcome to the traditional technique, as pixie ear did not occur except mildly in one case post-operatively. One minor drawback in our technique was in three cases, the appearance of a little scar just below the ear lobe. In one case, the scar was revised with surgical repair, while in two other cases laser resurfacing was performed.

According to the score table, the two groups were evaluated by two different surgeons, who scored the operative results for each case individually from 1-2 (Table 1).

Table (1): Number of cases according to the scoring 0-2.

	Score 0	Score 1	Score 2
Group A	2	3	6
Group B	8	3	1

As regard, Inter-tragal to otobasion inferius distance (I-O distance), and Otobasion inferius to subaurale distance (O-S distance), (Table 2) illustrate the difference between means in each group pre and post-operatively.

Table (2): Means of inter-tragal to otobasion inferius distance (I-O distance), and Otobasion inferius to subaurale distance (O-S distance) in mm.

	Group A		Group B	
	Pre-op.	Post-op.	Pre-op.	Post-op.
I-O distance	10.33±0.65	13.33±0.45	10.73±0.35	11.22±0.65
O-S distance	5.58±0.95	2.38±0.95	5.43±0.7	4.29±0.65

DISCUSSION

With different methods for avoiding or treating pixie ear deformities, no single technique is superior to others, and the post-operative possibility of ear lobe deformity remains to be challenging.

Authors have attributed ear synkinesis (pixie) ear to several factors. Among the factors are skin over-resection and imbalance between the vertical and horizontal skin lift vectors, and/or tractional distortions through improper SMAS tension [5].

The reported technique was to ensure minimal tension on the scar preventing its downward migration and thus its visibility. A small V-shaped incision preserved the angle at the caudal end of

the ear lobe. In addition, suspension sutures and anchoring the subcutaneous tissue firmly was enough to relieve tension on the skin flaps to avoid flap displacement, an abnormal ear lobe appearance, or visible scars at the incision site.

Some authors stressed on the fact that prevention is better than treatment [2], while others postulated other options to try and avoid or treat pixie ear. Marlen et al., showed a method of interrupting the incision around the ear lobe. They stopped anterior to the lobe and finished behind it, avoiding dissection of the ear lobe from its base as a whole [10].

Knize emphasized on a similar technique of a modified incision to improve the elevated temporal hairline, visible mastoid skin scars, and the natural appearance of the tragus and ear lobule. The author highlighted the importance of a flap anchoring suture to the remarkably stable ear cartilage [1].

Laurence [11] described a technique where a posterior triangular incision to the ear lobe was done, and anchored to the mastoid fascia, resulting in a hidden scar and a less obvious pixie ear post-operatively.

Kaye [12] combined a modification to the previous technique, by adding a posterior ear lobe rotational flap and a concha-mastoid suspension suture that were executed with each facelift procedure. Among 105 patients, they noticed pixie ear deformity in only 2% of cases and pseudo-ptosis in 1%.

The technique presented in this study are preliminary; a long-term (three-year) follow-up is still needed to emphasize the results.

Conclusion:

The described technique allows less skin scarring, and a more natural look for ear lobe after lower face lift surgery. Further long-term assessment of the results is necessary.

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