

Short Communication

A Novel Technique of Pixie Ear Correction Using a Modified V-Y Plasty in Revision Rhytidectomy Surgery

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Keywords

- Rhytidectomy
- Face-lift
- Pixie-ear
- Scar revision

Abstract

Background: The “Pixie ear” earlobe deformity is a condition where the ear lobe is unnaturally pulled in a straight line towards the angle of the mandible. It is often due to excess tension on closure of the face-lift flap at its attachment to the earlobe.

Method: We describe a simple and effective technique for surgical correction of this deformity, based on a skin-preserving V-Y plasty.

Results: We have performed this technique on 22 patients over a 10 year period, with no recurrences or revisions required. The technique we describe can be used in an isolated manner or in conjunction with revision face-lift surgery.

Conclusion: We provide a simple, safe and reproducible skin-preserving technique for correction of a deformity with highly satisfactory post-operative results.

Level of Evidence: IV

INTRODUCTION

The “Pixie ear” earlobe deformity is a condition where the ear lobe is unnaturally pulled in a straight line towards the angle of the mandible (Figure 1a and 2a), giving the earlobe an unsightly tethered appearance. The pixie ear deformity may be congenital in origin or may occur as an unwanted outcome of prior facelift surgery. In these cases, the cause of the deformity is due to excess tension on closure of the flap at the lowest attaching point of the earlobe, called the otobasion, as it attaches to the side of the face.

Numerous techniques have been described to prevent the formation of the pixie-ear deformity in primary face-lift cases. These include the use of various post-auricular incisions [1] as well as the use of tension-distributing barbed sutures around the ear [2].

Various corrective techniques are described in the literature, though most involve removal of skin, therefore resulting in a smaller earlobe [3,4]. V-Y plasties and flaps have been described for treatment of congenital ear defects, such as cryptotia, although the flap location, design, and overall aim are different in this condition [5].

MATERIALS AND METHODS

A chart review of all secondary facelifts performed by the senior author was undertaken. Patients who had correction of the pixie ear deformity were further analyzed.

Diagnosis of the pixie-ear deformity was made based on the characteristic pulled and tethered appearance of the earlobe in patients who had previous facelift surgery.

RESULTS AND DISCUSSION

Of the 208 secondary facelift procedures performed over a ten year period (2004-2014) by the senior author, 22 had correction of a pixie ear deformity. All 22 patients were female and all deformities were bilateral, however not necessarily symmetrical in severity. No relapses of the deformity occurred during the study period.

Surgical Technique

Our technique is a modified V-Y plasty placed adjacent to the post auricular crease of the ear lobe, at the point of maximal visible and palpable tension. The steps are outlined in Figure 1 a – 1h.

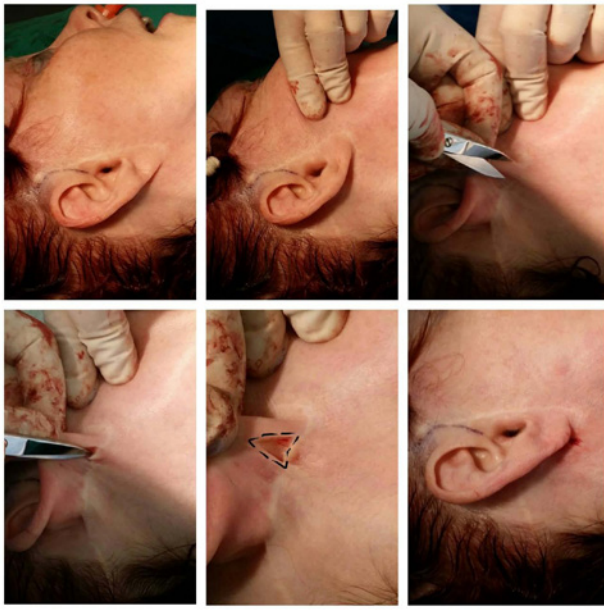


Figure 1 Intra-op steps of technique. 1a – 1 f from left to right.

Firstly, the assistant retracts the “pixie ear” in a superomedial direction. This is in the direction towards the “ideal” position of where the otobasion should be (Figure 1b)

The surgeon then identifies a region in the posterior aspect of the lobe which is under tension and a fibrous band may be felt. A pair of heavy scissors, in our case a double edge Converse scissor, are used to make a single, sharp, straight “V” like cut, simply due to the straight scissor edges being open and contacting the skin surface (1c-d). The V shape immediately springs to form an arrow-like shape, forming the basis of our V-Y plasty (Figure 1e). Immediately a release and relaxation of the lobe is noticed, once the ear is placed back to its resting position. 6-0 nylon sutures are placed to close the superior aspect of the V, as per figure 3, leaving the inferior aspect to incorporate with the revision facelift incision.

A deep plane rhytidectomy is then performed, with incisions placed to incorporate the inferior aspect of the V-Y. This in essence is a scar excision of the previous scar at the level of the earlobe. New skin will be recruited and sutured tension-free, being hidden behind the new ear-lobe. Once the face-lift flap is raised and maximally mobilized, planning is made for a tension-free closure all around the ear. Excess skin and SMAS is resected and any thick or unsightly scarring in the region of the pixie-ear deformity is excised, given new skin will be mobilised to the otobasion area.

We remove sutures on the eighth post-operative day and re-evaluate patients at 6 weeks (Figure 2b). Occasionally at the 6 month visit, a small amount of hyaluronic acid filler is injected into the lobes for volume and finesse if required.

Discussion

Our technique has 4 major advantages over other described techniques which utilize various skin flaps or the use of grafts

- 1- The incision is placed behind the earlobe and therefore results in less visible scarring.
- 2- The region of maximal tension is released and therefore a cause of the deformity is dealt with early on in the surgery.
- 3- Earlobe skin is not removed but re-distributed in a more natural, aesthetically pleasing manner. Removal of skin will result in a smaller earlobe which may become noticeable and attract unwanted attention.
- 4- There is no associated donor site morbidity as with other techniques of utilising distal grafts [6].

Numerous effective techniques have been described for correction of a pixie-earlobe deformity [3-7]. Techniques which involve removal of skin [3,4] may be counterproductive given the already limited and compromised earlobe epithelial surface area and tension in the region. Percutaneous techniques with “stab incisions” have also been described⁷. This technique would not be taking the tension off the otobasion region per-se, rather it would redistribute tension and relies on leaving non-dissolving sutures inside the lobe to maintain shape.

Volumizing techniques where conchal cartilage and dermafat

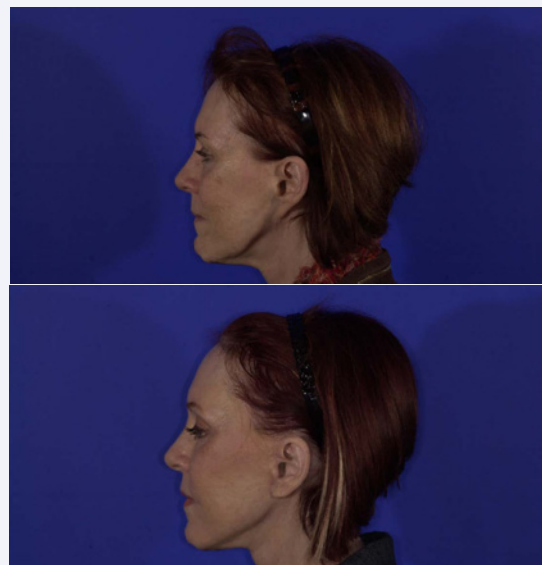


Figure 2 Fig 2a and 2b. 2a – Pre-op pixie ear deformity. 2b – Post-op

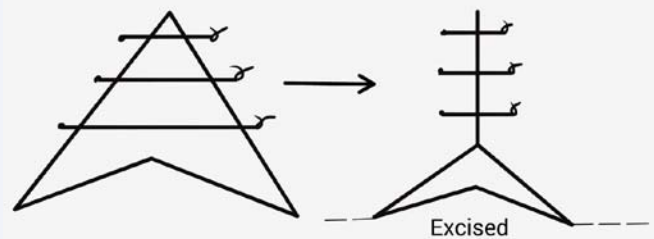


Figure 3 Closure technique for V-Y plasty. Upper aspect is closed with 6-0 nylon, lower aspect is incorporated with facelift incision and later excised.

grafts are placed into a pocket made in the earlobe have also been described [6]. These techniques do not remove any skin from the region and also have the advantage of controlling the amount of volumization.

Our technique could potentially be modified to allow for the insertion of grafts to add volume to the earlobe, although we feel the need is infrequent and the simplicity of occasional fillers outweighs the issues which may occur with grafting the earlobe.

CONCLUSION

In order to prevent the pixie ear deformity, a tension free and meticulous closure is necessary. Other adjunctive techniques have been described to further prevent its formation [1,2].

Our technique provides a simple, cosmetically pleasing and reproducible skin-preserving technique for correction of the deformity. Other techniques of pixie ear correction where skin is removed should be considered where ear-lobe size reduction is suitable. Consideration of volumizing the earlobe may be undertaken intra-operatively or can be addressed post-op.

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