Otoplasty

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Introduction

The incidence of a prominent ear deformity approaches 5 %, with an unfurled antihelix and a deep conchal bowl accounting for the most common variations [1]. Individuals with prominent ears, especially children, are sometimes exposed to significant psychological distress [2]. Thus, otoplasty can be performed to surgically contour the protruding ears to a less prominent, more natural position. Otoplasty involves exposing the auricular cartilage and mastoid fascia, placing sutures to recreate the antihelical fold, and setting the auricle back in its desired anatomic location. Complications include both short-term (e.g., infection, hematoma, necrosis) and long-term (e.g., asymmetry, inadequate correction) problems. The most common complication is patient dissatisfaction [1].

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Indication

1. Prominent ear deformity [3]

Essential Steps

Preoperative Markings

1. Postauricular incision

Intraoperative Details

1. Place the patient in supine position; pad all pressure points, tuck the arms, and place sequential compression devices on the lower extremities.
2. General endotracheal anesthesia induced by anesthesia team.
3. Mark postauricular incision as a small ellipse.
4. Infiltrate the incision line and postauricular tissues with 1 % lidocaine with epinephrine.
5. Prep and drape the face, bilateral ears, and surrounding periauricular areas.
6. Incise at the postauricular incision line down to the posterior surface of the auricular cartilage.
7. Dissect out this plane to expose the entire posterior surface of the auricular cartilage.

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Elevate posteriorly to expose the mastoid fascia.
8. Fold the ear to recreate a natural-appearing antihelical fold.
9. Insert 1.5 in. 25 gauge needles through the anterior surface of the ear to mark where the permanent sutures will be placed.
10. Place three Mustarde sutures at the marked locations using permanent, double-armed supramid.
11. Place a Furnas suture from the posterior auricular cartilage to the mastoid fascia, again using permanent suture.
12. Incise the excess skin down to the lobule and repair it with simple interrupted 5-0 plain gut.
13. Dress and cover the incision with fabricated conforming pressure dressing.

Postoperative Care

1. Pack the incision with cotton or straps soaked with antibiotic-containing preparation or disinfecting agent [3].
2. Change the dressing twice during the first week, with the first change occurring on postoperative day 1 or 2 [3].
3. Remove sutures and replace dressing with a headband 1 week post-op [3].

Possible Complications

1. Hematoma
2. Infection
3. Skin and cartilage necrosis [1]
4. Recurrent deformity [1]
5. Inadequate correction
6. Asymmetry
7. Patient dissatisfaction [1]

Operative Dictation

Diagnosis: Prominent ears
Procedure: Otoplasty

Indication

Patient is a _____ presenting with protruding ears. The patient complains of dissatisfaction with their appearance and social stigmatization and desires correction. The patient and family express understanding of the risks, benefits, and alternatives to the procedure and wish to proceed. After their questions are answered, informed consent is obtained.

Description of the Procedure

The patient was met in the preoperative holding area and marked. The patient was then brought to the operating room and placed in supine position on the operating room table, and the arms were tucked. All pressure points were padded, sequential compression devices were placed, and the patient was grounded. A time out was performed. General anesthesia was induced after oral intubation. A postauricular incision was marked out as a small ellipse for skin excision, and the incision and postauricular tissues were infiltrated with 5 cm^3 of 1 % lidocaine with epinephrine. The face and bilateral ears and surrounding periauricular areas were prepped and draped in typical sterile fashion.

Local anesthesia was administered. Adequate time for vasoconstriction was allowed. The incision was made with a #15 scalpel down to the posterior surface of the auricular cartilage. This plane was dissected out, spreading with scissors to expose the entire posterior surface. The posterior flap was elevated in similar fashion to expose the mastoid fascia to prepare for the placement of a Furnas suture. Vigilant hemostasis was obtained with the Bovie cautery on low setting and then the wound was irrigated. The ear was folded to recreate an antihelical fold. One and a half inch 25 gauge needles were dipped in methylene blue and inserted through the anterior surface of the ear to mark where the permanent sutures were to be placed. Three Mustarde sutures were then placed using double-armed 4-0 supramid in a Byrd mattress fashion and placed on hemostats. These were then tied down, doing the middle suture last in order to avoid the telephone ear

deformity. Using a double-armed 4-0 supramid, a Furnas suture was then placed from the posterior auricular cartilage to the mastoid fascia. The excess skin was excised down to the lobule. Skin was repaired with simple interrupted 5-0 plain gut. The incision was dressed with xeroform and bacitracin, and 4×4 gauze was placed over the ear. This was then covered with an eye protector and taped into place. All counts were correct, and the patient was extubated and transported to recovery without issue.

References

1. Peterson RS, Friedman O. Current trends in otoplasty. Curr Opin Otolaryngol Head Neck Surg. 2008;16(4): 352–8.
2. MacGregor FC. Ear deformities: social and psychological implications. Clin Plast Surg. 1978; 5:347.
3. Naumann A. Otoplasty—techniques, characteristics and risks. GMS Curr Top Otorhinolaryngol Head Neck Surg. 2007;6, Doc04.