Esthetic Correction of Lying Ears With Hyaluronic Acid Filler

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Background: The shape and size of ears significantly influence facial aesthetics. In many Asian cultures, lying ears are not perceived favorably in Asian culture, leading individuals to seek surgical interventions to correct this issue. Also, due to the Ebbinghaus effect, prominent ears create a illusion of a smaller face, which is highly desired in Asians. However, surgeries to create prominent ears are invasive, can involve complications and necessitate a period of recovery. To address this concern, the authors have developed a technique utilizing hyaluronic acid (HA) injections of MAILI range (Sinclair Pharma) to enhance the appearance of lying ears.

Methods: HA injections were performed at the auriculocephalic sulcus and the helix to increase the cranioauricular angle (CA) and correct lying ears.

Results: Patients showed improvements in ear prominence. The cranioauricular angle (CAA) and ear projection (EP) increased immediately after the procedure. No serious complications were noted

Conclusion: The injection of hyaluronic acid (HA) into the ears successfully addressed the issue of lying ears and enhanced the overall facial profile. In addition, it provided a lifting effect that contributed to a more youthful and refined appearance. This minimally invasive procedure did not necessitate any recovery time, and the results were long-lasting and highly satisfactory. Evidence Level: Level V.

Key Words: Dermal filler, lying ear, helix, conchoscaphal angle, auriculocephalic angle

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From a cultural and esthetic perspective, human ears have quite a significant impact. The proportions of the face are greatly influenced by the symmetry and form of the auricles. Lying ears is a condition where the auricles become inconspicuous from the front view. In Asian countries, large and thick ears are seen as a sign of prosperity and happiness. Therefore, patients are more likely to ask for a more noticeable ears.

Lying ears may also be esthetically unappealing because they make the face appear wider and bigger in frontal view, which worsens the Asians' comparatively wide and prominent zygomatic bones. This condition is described as a lack of head projection, severe rearward curvature, shallow concha, conchoscaphal angle significantly <90 degrees, and prominence of the antihelix. 1–5 The Ebbinghaus illusion due to prominent ears makes the face look smaller in comparision, which is a highly desired outcome in Asian ladies. 6,7,8

Auricular deformity can lead to significant psychological morbidity; in contrast, there is strong evidence that treating auricular malformations can improve the patient's psychological outcomes. 9-12

Various treatments have been documented to address the issue of protruding ears. Lee et al¹³ inserted a silicone implant beneath the periosteum located behind the ear. Jeong et al¹⁴ performed a release of a fibrous band at the antihelical fold and subsequently grafted cartilage. Although these techniques successfully adjust the acute cranioauricular angle, they involve surgical intervention, which can be invasive and necessitates a recovery period. Moreover, complications such as prosthesis exposure and infection can occur. However, only a few research have been conducted to investigate the available minimally invasive treatments for ears.

Hyaluronic acid (HA) injections provide a nonsurgical solution to address ear corrections while avoiding the complications associated with surgical procedures. This method is widely recognized and embraced in cosmetic surgery due to its minimally invasive nature and immediate results.

In this article, we discuss the use of HA injections for correcting lying ears and esthetically modifying the helix. As a nonsurgical alternative, we also aim to refine our approach to ear rejuvenation using a minimally invasive method.

ANATOMY

The external ear consists of a sheet of irregularly shaped elastic cartilage, which is enveloped by a thin layer of skin. It features various depressions and elevations, with the shell representing the most prominent depression. The upper edge of the ear is referred to as the helix, while just beneath the helix lies the scaphoid or pit, a lengthy depression situated below the propeller.¹²

The structure of the external ear has been extensively examined by various authors, including Brent and others, who have provided comprehensive descriptions of the outer ear's shape and methods for its reconstruction. The term "escafa" refers to an elevation known as the antihelix, which bifurcates into 2 branches, with a cavity situated between them called the fossa navicularis or triangular fossa (Fig. 1).¹⁵

The earlobe, a small segment of soft tissue located at the lower part of the ear, is anatomically referred to as the lobule (a diminutive form of "lobe"). Positioned at the upper part of the lobule are the tragus and antitragus, with the tragus situated at the entrance of the external auditory canal and the antitragus located just above the lobule. ^{12,15,16}

The vascular supply to the external ear is primarily sourced from the external carotid artery, specifically through the su-

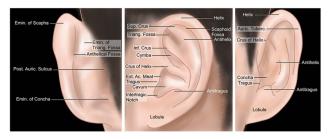


FIGURE 1. External anatomy of the ears.

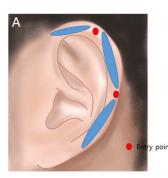
perficial temporal artery and posterior auricular arteries, along with their respective perforators. Venous drainage is directed into the external and internal jugular veins through the post-auricular, superficial temporal, and retromandibular veins. Sensory innervation is provided by cranial nerves II, III, V3, VII, and X. ^{12,15,16}

The esthetic proportions of the human ear reveals that there are esthetic and anatomic distinctions between sexes, as well as variations in ear morphology with age. The ear conveys information regarding age, sex, and other facial characteristics. The perception of the ear can be influenced by distortions in key structures, particularly the lobule, helix, and concha. ^{12,15,16}

HA FILLER INJECTION TECHNIQUE

After a comprehensive nonsurgical evaluation, the patient's consent was obtained. The patient was placed in the Fowler position, and the auricles were sanitized with a 5% povidone-iodine solution followed by an alcohol swab. An anesthetic cream may be applied 30 minutes before the procedure, based on the patient's choice. Ice packs can be utilized one minute before the injection to decrease vascularity and improve the effectiveness of local anesthesia. Local anesthesia was provided on an outpatient basis due to the treatment's low complexity and swift execution. A sterile cotton swab was gently applied to the area for 15 to 30 seconds to control any potential bleeding

Employing the correct technique is crucial for achieving the best cosmetic outcomes and reducing the risk of complications, such as pain, bruising, swelling, nodule or granuloma development, the Tyndall effect, and vascular occlusion. For the auricle projection, a modified sodium hyaluronate gel containing lidocaine (MaiLi Extreme, Switzerland, Sinclair Pharma) was injected For the helix treatment, a modified sodium hyaluronate



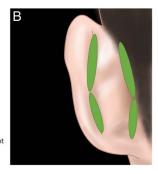


FIGURE 2. Illustration of the helix injection (A). This area can be divided into 3 parts. Each part can be augmented using Maili Define, about 0.5 to 1 mL filler, according to each patient's need. A 25-G cannula was used for ease in injection. Illustration of posterior part injection for auricular projection (B). This area can be divided into 4 different parts. Each part can be augmented with 0.2 to 0.3 mL of HA filler, according to the patient's need. The authors used Maili Extreme, injected using a sharp needle.

gel containing lidocaine (MaiLi Define, Switzerland, Sinclair Pharma) was injected subcutaneously using a retrograde linear threading method with a 25 G cannula (Fig. 2A).

The ears were gently pulled forward using the index finger and thumb, and the area exhibiting the greatest tension was chosen as the initial injection site. The authors administered the HA filler (MaiLi extreme) with a 27-G sharp needle. A bolus of 0.2 to 0.3 mL of HA was injected above the periosteum, resulting in an immediate forward projection of the auricle (Fig. 2B).

An alternative technique to project the auricle would be to use a 22 G cannula from a caudal to cephalic approach with a vertical injection vector through the triangular fossa and cymba, touching the periosteum of the temporal bone, before depositing the high projection capacity HA filler on the periosteum and in a retrograde manner. This is safer in 3 ways: (a) the avoidance of the preauricular and postauricular vascular supply of the auricle; (b) allows the reflection of the auricle without much trauma to the cartilage and allows a live visualisation of the result while injecting; (c) a few cm away from the stylomastoid foramen, which marks the point of emergence of the main trunk of the facial nerve. (See Supplemental Digital Content 1, SDC Video 1, http://links.lww.com/SCS/I557 -triangular fossa, Supplemental Digital Content 2, SDC Video 2, http://links.lww. com/SCS/I648 - Concha, Supplemental Digital Content 3, SDC Video 3, http://links.lww.com/SCS/I649 Helix injection) Results seen in Figure 5 and 6.

The helix: a first injection site was positioned at the junction of the upper and middle thirds of the auricular structure. The second injection site was located below the first, at the junction of the middle and lower thirds of the auricular structure. The helix injections, each ranging from 0.5 to 1 mL, were performed in a manner similar to the first. In total, 1.5 to 2.5 mL of HA filler was administered to each side.

Once both sides were treated, minor adjustments were made to ensure the auricular profiles were symmetrical. The discomfort experienced during the procedure was considered manageable, enabling the patient to return to work following a significant reduction in postprocedural swelling.

The patient was instructed to avoid applying pressure to the auricles for the next 48 hours, and no accessories or dressings were used during this period. It is crucial to monitor for any adverse reactions or complications, such as swelling, hematoma, infection, discoloration, scarring, embolism, and severe pain. In addition, patients were advised to refrain from sleeping on one side for an extended duration over the following week to maintain the desired shape (Figs. 3 and 4).

DISCUSSION

Although auricles are supporting elements in facial esthetics, they play a significant role in the 3-dimensional (3D) perception of the head and face, and contribute to the beauty of symmetry. Maintaining auricular esthetics in harmony with the other areas is essential for the overall outcome.

In Western countries, prominent ears (more abducted and larger auricles) are not well-accepted by society^{17–19}. However, in Eastern countries, many people accept and even favor prominent ears and seek surgical treatment to increase ear prominence. Ears with proper prominence are identified as adorable and youthful.

Ears appear more prominent in children because they grow faster than the head. As people grew older, the ear prominence gradually diminishes. With aging, elastic fibers in the auricular cartilage gradually lose their elasticity, leading to increased ear

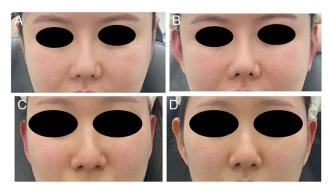


FIGURE 3. A 32-year-old female presented with "lying ears," where the auricles were minimally visible from the frontal view. She received a total of 3.4 mL of hyaluronic acid (HA) filler, distributed as follows: 1.0 mL into the helix, 0.8 mL at the eminence of the concha, 0.6 mL in the postauricular sulcus, and 1.0 mL into the anthelical fossa. Following the injections, auricular projection was significantly enhanced, resulting in greater ear prominence and a more youthful, esthetically balanced appearance. Clinical photographs taken pre-injection (A) and immediately post-injection (B) demonstrate the esthetic improvement. A 29-year-old female presented with insufficient auricular projection, with the ears appearing flattened and partially obscured from the frontal view. She was treated with a total of 2.9 mL of hyaluronic acid (HA) filler, distributed as follows: 0.8 mL into the helix, 0.6 mL at the eminence of the concha, 0.7 mL in the postauricular sulcus, and 0.8 mL into the anthelical fossa. The procedure resulted in improved auricular contour and projection, enhancing overall facial balance and youthfulness. Preinjection (C) and immediate postinjection (D) images illustrate the esthetic improvement.

length and decreased earlobe width. 11,20 Therefore, people with lying ears may be perceived to be more senile.

The faces of individuals with lying ears appear larger and less attractive because the external ears are hidden in frontal view. One possible reason is that the smaller surrounding reference objects (the auricles) make the central object (the face or the middle face) appear larger, a phenomenon known as the Ebbinghaus illusion. ^{6,7,8} The treatment of auricles did not numerically alter any parameters of midface width or zygomas; rather, it impacted the overall balance and proportions of the frontal view by visually "buffering" the midface width or zygomas;



FIGURE 4. A 27-year-old female with lying ears, in which the auricles were barely visible from the front view. She received HA filler injection 0.6 mL at the helix, 0.3 mL at the eminence of concha, 0.3 mL in the postauricle sulcus, 0.6 mL in the anthelical fossa. After the injection, the prominence of the ear improved significantly, with greater ear prominence, and looked younger and more attractive. Patient images pre-injection (A and C) and immediately post-injection (B and D).

goma protrusion.

Compared with surgeries, the injection method is simple, effective, long-lasting, and well-tolerated. Another advantage was that when HA is partly absorbed, supplementary injection can be performed to maintain ear prominence and shape. If a patient is dissatisfied with the shape, hyaluronidase can be used to easily dissolve the HA. Owing to its propensity for volume loss and rhytid formation, the ear stands to benefit from filler application; nevertheless, FDA-approved soft-tissue fillers remain off-label for this area.

Following the HA injection procedure, the ear projection and cranioauricular angle increased remarkably. The filing of the auricular base not only improved ear prominence but also supplemented the volume deficit of the posterior temporal region. This restored the youthful structure and smoothened the facial profile. Otherwise, the protrusion of the auricular base transformed the outermost point of the facial contour from the zygomatic arch to the auricle, which increased the width of the outer contour and visually made the face slimmer and smaller. This visual effect also shortened the appearance of long faces.

We also observed an interesting phenomenon in which the elevation of the auricular base not only corrected the lying ear deformity but also made the face appear more juvenile. While ears with appropriate prominence look closer to the ears of a child, the elevation also had a face-lift effect. We observed improved facial contour in the temporomandibular region (Figs 5, 6).

After the 6-month follow-up, this effect weakened but still existed. The possible explanations for the lift effect occur include the ligament support provided by the deep filling. The ligaments and fascia around the ear include the tympanoparotid fascia, platysma auricular ligament, parotid masseteric fascia, and parotid cutaneous ligaments. 6.22 Following injection, loose

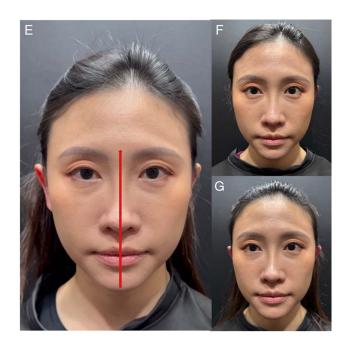


FIGURE 5. A 34-year-old female with lying ears, in which the auricles were barely visible from the front view. She received 2.5 ml of HA filler (Maili Extreme) through the triangle fossa and cymba with a 22 G cannula, and 1 ml of HA filler (Maili Define) of her helix with a 25 G cannula. Clinical photographs taken preinjection (F), and post-injection (G) showed immediate improvement of her lying ears. (E) shows only her right ear treated which makes her right mid to lower face look smaller and more contoured as compared to her left side.



FIGURE 6. The same lady as Figure 5. Clinical photographs taken pre-injection (A), (C) and post-injection (B), (D) showed immediate improvement. There is also noticeable reduction of her jowls and marionette folds, with a more tightened jawline.

ligaments were tightened, and the superficial musculoaponeurotic system and subcutaneous layer were pulled up based on the soft-tissue space, ²³ resulting in facial rejuvenation.

Vascular embolism is the most severe complication that might occur and should be considered. The major blood vessels around the ears include the posterior auricular artery, the superficial temporal artery, and their branches. Hese vessels were distributed in the preauricle, postauricle, and subcutaneously in the auricle. The deep surface of the auricular base lacks vessels and is a relatively safe region for injection. Superselective intra-arterial thrombolytic therapy with hyaluronidase and papaverine was found to highly alleviate peripheral facial paralysis in 4 patients due to vascular embolism from lying ear hyaluronic acid correction.

When injecting at the AS, the HA bolus on the periosteum generates a stronger support for the auricles compared with the other layers. We also recommend keeping the injection sites away from the external acoustic meatus (Fig. 2A). ^{26–28} Esthetic harmony and patient satisfaction are more important than measurements and statistical significance. Aggressive volume replacement is not recommended.

We selected the HA fillers based on 3 considerations. (1) The physicochemical properties of the product were able to meet the treatment needs. MaiLi Define (18 mg/mL) is relatively soft, with good tissue integration and appropriate for helix and ear lobule injections. Maili Extreme (24 mg/mL) is appropriate for injections at the AS to achieve sufficient support force (Fig. 3). Maili Extreme was compared with Juvederm Voluma and found to have more than 3 times the viscocity, 373% more projection force, 34.5% more projection height, able to withstand > 4 times the compression force and a higher Elastic Modulus E^{29,30}. (2) The HA filler is manufactured with an innovative manufacturing process called "OXIFREE," the cross-linking of HA under inert atmosphere after removing reactive oxygen, which not only preserves the intrinsic properties of the high molecular weight chains, they also exhibit strong projection capacity, suppleness,

longevity and their ability to volumize tissues.^{29,31–33} (3) The HA filler is medium-priced and cost-effective.

Evaluation of treatment necessity is therefore essential. Communication with patients before determining the treatment regimen is also vital. This treatment may not be appropriate for all ethnicities. Auricular dimensions have been found to vary across different ethnic groups, ^{33–36} and the clinical efficacy observed in our study cannot simply be generalized to other ethnic groups.

Treatment to increase the CA may not be suitable for cases with round or square facial shapes because protruding auricles may visually increase the pan-facial transverse diameter. Exploring the anatomic distribution of auricle blood vessels would be helpful to reduce the probability of vascular embolism. This study has some limitations, including the lack of long-term follow-up 3D images and morphologic data.

The hyaluronic acid injection technique offers significant value as a minimally invasive alternative to surgical ear correction, providing immediate esthetic improvements without downtime. Its customizable nature allows for precise volume adjustment to achieve optimal auricular projection, with the added safety of reversibility using hyaluronidase if needed. Beyond correcting lying ears, secondary benefits include facial rejuvenation through temporal volume restoration and a subtle lift effect mediated by ligament tightening. However, limitations must be acknowledged: while complications were not observed in our study, the use of HA fillers in the ear remains off-label. Esthetic outcomes may vary by ethnicity, as overly prominent ears could accentuate facial width in patients with round or square face shapes—a nuance requiring careful preoperative assessment. Further long-term studies are warranted to evaluate durability beyond our 6-month follow-up period, though the option for touch-up injections offers practical flexibility in maintaining the results.

CONCLUSION

The ears significantly influence facial esthetics. In many Asian cultures, lying ears are often viewed unattractive. While various surgical options exist to address this issue, there are limited reports on minimally-invasive techniques. The authors advocate for the use of a hyaluronic acid (HA) injection for this case as a nonsurgical alternative to effectively correct lying ears. This approach not only enhances the position and shape of the auricles but also yields visually appealing outcomes.

Utilizing dermal fillers for the correction of lying ears is a straightforward and low-risk procedure that provides immediate patient satisfaction and offers a good duration of results. The effects are both immediate and long-lasting, with minimal side effects and downtime. Evaluating the ears should be a standard part of facial assessments aimed at esthetic improvement.

REFERENCES

- Yamada A. Invited discussion on: surgical correction of the lying ear deformities. Aesthetic Plast Surg 2019;43:1233–1234
- Ali K, Meaike J, Maricevich R, et al. The protruding ear: cosmetic and reconstruction. Semin Plast Surg 2017;31:152–160
- Ordon A, Wolfswinkel E, Shauly O, et al. Aesthetic otoplasty: principles, techniques and an integrated approach to patient-centric outcomes. Aesthetic Plast Surg 2019;43:1214–1225
- Taboada Suárez A, Brea García B, Couto González I, et al. Correction of protruding ears (Weerda grade I deformity) using knotless bidirectional barbed absorbable sutures. *Otolaryngol Head Neck Surg* 2014;151:939–944
- Gualdi A, Cambiaso-Daniel J, Gatti J, et al. Double triangular cartilage excision otoplasty. *Plast Reconstr Surg* 2018;141: 348e–356e

- Saneyoshi A. The Ebbinghaus illusion with small inducers appears larger on the right side. Exp Brain Res 2018;236:933–944.
- Takao S, Clifford CWG, Watanabe K. Ebbinghaus illusion depends more on the retinal than perceived size of surrounding stimuli. Vision Res 2019;154:80–84
- 8. Todorović D, Jovanović L. Is the Ebbinghaus illusion a size contrast illusion? *Acta Psychol(Amst)* 2018;185:180–187
- Shonka DC Jr, Park SS. Ear defects. Facial Plast Surg Clin North Am 2009;17:429–443
- Farkas LG, Posnick JC, Hreczko TM. Anthropometric growth study of the ear. Cleft Palate Craniofacial J 1992;29:324–329
- 11. Adamson JE, Horton CE, Crawford HH. The growth pattern of the external ear. *Plast Reconstr Surg* 1965;36:466–470.
- 12. Tolleth H. Artistic anatomy, dimensions, and proportions of the external ear. *Clin Plast Surg* 1978;5:337–345; PMID: 699488
- Lee BM, Kang SJ, Sun H. Simple aesthetic correction for patients with acute auriculocephalic angle. Arch Craniofac Surg 2015;16:24–28.
- Jeong TK, Kim YM, Min KH. Surgical correction of the lying ear deformities. Aesthetic Plast Surg 2019;43:1228–1232.
- Brent B. Reconstruction of the auricle. *Plastic surgery: the face*, Vol. 3Philadelphia: W. B. Saunders; 1990:2095–2152
- Farkas LG. Anthropometry of the normal and defective ear. Clin Plast Surg 1990;17:213–221
- Braun T, Hainzinger T, Stelter K, et al. Health-related quality of life, patient benefit, and clinical outcome after otoplasty using suture techniques in 62 children and adults. *Plast Reconstr Surg* 2010;126:2115–2124
- Oliveira MM, Oliveira DS, Oliveira GS. The existence of a natural plica at the anatomical base of the antihelix and its surgical importance to address protruding ears: an anatomical surgical study. Aesthetic Plastic Surg 2017;41:321–326
- Taboada-Suárez A, Brea-García B, Couto-González I, et al. Correction of protruding ears (Weerda grade I deformity) using knotless bidirectional barbed absorbable sutures. *Otolaryngol Head Neck Surg* 2014;151:939–944
- Ito I, Imada M, Ikeda M, et al. A morphological study of age changes in adult human auricular cartilage with special emphasis on elastic fibers. *Laryngoscope* 2001;111:881–886.
- Brucker MJ, Patel J, Sullivan PK. A morphometric study of the external ear: age- and sex-related differences. *Plast Reconstr Surg* 2003;112:647–654.
- 22. Seo YS, Song JK, Oh TS, et al. Review of the nomenclature of the retaining ligaments of the cheek: frequently confused terminology. *Arch Plast Surg* 2017;44:266–275.

- O'Brien JX, Rozen WM, Whitaker IS, et al. Lore's fascia and the platysma-auricular ligament are distinct structures. J Plast Reconstr Aesthetic Surg 2012;65:e241–e245.
- 24. Zheng C, Pei HN, Zhou GW, et al. Super-selective intra-arterial thrombolytic therapy for peripheral facial paralysis after postauricular hyaluronic acid injection for the esthetic correction of lying ears. Aesthetic Plastic Surg 2024;49:13–19
- Mendelson BC, Freeman ME, Wu W, et al. Surgical anatomy of the lower face: the premasseter space, the jowl, and the labiomandibular fold. *Aesthetic Plast Surg* 2008;32:185–195.
- H_enoux M, Espitalier F, Hamel A, et al. Vascular supply of the auricle: anatomical study and applications to external ear reconstruction. *Dermatol Surg* 2017;43:87–97.
- 27. Arora G, Arora S. Rejuvenating earlobe esthetics with dermal fillers. *J Cosmet Dermatol* 2022;21:2788–2792.
- 28. Betemps JB, Marchetti F, Lim T, et al. Projection capacity assessment of hyaluronic acid fillers. *Plast Aesthet Res* 2018;5: 19
- Koppert E, Wong IKJ, Wan J, et al. Correction of facial asymmetry using dermal fillers: understanding the role of facial rotation. J Craniofac Surg 2025; doi: 10.1097/SCS.0000000000011715
- Gavard Molliard S, Albert S, Mondon K. Key importance of compression properties in the biophysical characteristics of hyaluronic acid soft-tissue fillers. J Mech Behav Biomed Mater 2016;61:290–298
- 31. Gavard Molliard S, Bon Betemps JB, Basste H, et al. Key rheological properties of hyaluronic acid fillers: from tissue integration to product degradation. *Plastic Aesthet Res* 2018;5: 17
- Micheels P, Poiraud M. A preliminary report on the safety and efficacy of a novel Maili HA filler for facial correction of wrinkles, folds, volume and lips. J Clin Cosmet Dermatol 2023:7:1-8
- Liew S, Wu WTL, Chan HH, et al. Consensus on changing trends, attitudes, and concepts of Asian beauty. *Aesth Plast Surg* 2020;44: 1186–1194.
- Wu WTL, Liew S, Chan HH, et al. Consensus on current injectable treatment strategies in the Asian face. Aesth Plast Surg 2020;44: 1195–1207.
- Samizadeh S, Wu W. Ideals of facial beauty amongst the Chinese population: results from a large national survey. *Aesth Plast Surg* 2020;44:1173–1183.
- 36. Chen Y, Zhuang J, Hu J. Atelectasis after bilateral costal cartilage ear reconstruction. *J Craniofac Surg* 2025;36:p e353–p e355.