Evolution of Anomaly-Specific Techniques in Infant Ear Molding: A 10-Year Retrospective Study

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Background: Congenital ear anomalies occur in at least one-third of the population, and less than one-third of cases self-correct. Ear molding is an alternative to surgery that spares operative morbidity and allows for significantly earlier intervention. In this retrospective study, the senior author (S.B.B.) developed a tailored approach to each specific type of ear deformity. The use of modifications to adapt standard ear molding techniques for each unique ear are described.

Methods: The authors conducted a retrospective, institutional review board–approved study of 246 patients who underwent ear molding performed by a single surgeon. The procedure reports for each case were reviewed to develop stepwise customization protocols for existing EarWell and InfantEar systems.

Results: This review included 385 ears in 246 patients. Patient age at presentation ranged from less than 1 week to 22 weeks. Presenting ear deformities were subclassified into mixed (37.4 percent), helical rim (28.5 percent), prominent (10.6 percent), lidding/lop (9.3 percent), Stahl ear (3.6 percent), conchal crus (3.3 percent), and cupping (2.8 percent). Two patients (0.8 percent) had cryptotia. Deformity subclass could not be obtained for 11 patients (4.5 percent). Recommended modifications to existing ear correction systems are deformity-specific: cotton-tip applicator/setting material (Stahl ear), custom dental compound mold (lidding/lop and cupping), scaphal wire (helical rim), cotton-tip applicator/protrusion excision (prominent), and custom dental compound stent (conchal crus).

Conclusions: Presentation of ear anomalies is heterogenous. This 10-year experience demonstrates that the approach to ear molding should be dynamic and customized, using techniques beyond those listed in system manuals to complement each ear and to improve outcomes. (*Plast. Reconstr. Surg.* 150: 394, 2022.)

CLINICAL QUESTION/LEVEL OF EVIDENCE: Therapeutic, IV.

Congenital ear deformities occur in at least one-third of the population, with discrepancies in prevalence and incidence being attributed to regional variability.[1–3] Up to one-third of cases self-correct, usually within the first week of life, but spontaneous resolution cannot be reliably predicted.[1–6] Early intervention is the best way to decrease psychosocial morbidity such as self-abasement and bullying later in life.[7–9] Ear deformities remain a missed opportunity for treatment despite evidence that early ear molding can decrease need for operative intervention.[3–5,10–12]

In the senior author's (S.B.B.) practice, ear molding has surpassed surgery as the preferred option for treating congenital ear deformities. The ability to customize standard ear molding systems has enabled the surgeon to correct most anomalies of the infant ear.[10] Ear molding not only spares operative morbidity (i.e., undercorrection, infection, hemorrhage, hematoma, hypertrophic scarring) but also allows for significantly earlier intervention than surgery, which must typically be delayed until cartilage maturation at 6 or 7 years of age.[1,6,13–17]

The senior author has effectively used molding systems as stipulated by their manufacturers,

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but his techniques have evolved over the past 10 years as data supporting anomaly-specific treatment have emerged.[3] Over 30 percent of ear anomalies that now present to our clinic undergo customized correction by means of prefabricated kits modified with materials such as dental impression material, dental putty, and dermal glue. The initially applied device is adjusted at nearly every visit to complement the changing ear shape, and treatment is frequently extended to 8 weeks of active therapy if warranted by the anomaly.

This approach allows standard devices to be modified to account for variations in ear morphology that have been described in the literature.[3] It has also enabled successful treatment of infants who present as late as 22 weeks of age. One of the keys to optimizing outcomes is the use of a customized stent worn by the patient for weeks to months following completed treatment with the EarWell Infant Ear Correction System (Becon Medical Ltd., Batavia, Ill.) or the InfantEar Nonsurgical Ear Molding System (TalexMedical LLC, Malvern, Pa.). This custom stent allows for corrected ear shape to be maintained over time. The purpose of this retrospective study is to describe customized prosthetic approaches for molding specific ear deformities.

PATIENTS AND METHODS

A single-center retrospective study using a prospectively maintained database was conducted over a 10-year period from January of 2010 through December of 2019. The study protocol was approved by the institutional review board of the authors' institution (institutional review board 2018:173 MedStar Plastic Reconstructive Surgery Outcomes Registry). All ear molding procedures were performed by a single surgeon (S.B.B.). The patient population consisted of consecutive infants presenting to our practice with ear anomalies. Average patient age at presentation was 22.8 days and ranged from 3 to 156 days.

Both the EarWell Infant Ear Correction System and the InfantEar Nonsurgical Ear Molding System consist of prefabricated kits. The EarWell kit includes the posterior cradle, conchal former, anterior shell, and retractors. The InfantEar kit includes the two-sided base plate, conformer, rim piece, silicone gel, and recently discontinued protective cap. These standard ear molding kits were applied according to manufacturer guidelines.

Materials used to modify the prefabricated systems were dermal glue, cotton-tip applicators, scaphal wire, dental impression material, and dental putty. The malleable wire used in scaphal molding is a thick-gauge, lead-free soldering wire that has been safely implemented in reshaping the ear since 1996.[18] The malleability and large diameter minimize the risk of pressure necrosis.[18]

Dental impression material is a low-viscosity, quick-setting substance that is injected out of a syringe onto the ear. The compound sets in 2 to 3 minutes but initially has a very low viscosity, requiring that the infant's head be held steady while it sets. Dental putty is a hand-mixed catalyst-base system available in various viscosities. Mixing the catalyst and the base initiates a reaction that causes the material to set as a semisoft solid. A lower catalyst-to-base ratio can be used to extend setting time.

Dental putty is used to create a custom stent that maintains the desired position of the ear over time, similar to a retainer in orthodontics (Fig. 1). The stent can be held in place with dermal glue (2-octyl cyanoacrylate), adhesive tape, or a nonocclusive dressing, and can be removed temporarily for bathing or photographs. This approach is used for extended treatment in late-presenting infants or those with severely affected ears.

Data collected included the classification of anomaly, patient age at presentation, treatment complications, number of devices required for treatment, number of fallout incidents, and number of device reapplications. Given variability in ear deformity classification, anomalies were grouped into eight major subcategories modified from previous studies (Table 1).[19] Pretreatment and posttreatment photographic documentation was used to classify presenting anomalies not described in the medical record. Rates of device fallout and reapplication were calculated by determining the total number of devices required to complete treatment for each patient. A device fallout incident referred to any instance when a device fell off the ear before scheduled removal. A device reapplication occurred any time a new device was applied, whether in response to device fallout or during scheduled reapplication as dictated by the treatment course. These frequencies were calculated because the senior author hypothesized that device fallout required parents to schedule additional clinic visits and could therefore decrease satisfaction with treatment. The surgeon's approach to each case was assessed to develop a treatment protocol specific to each type of deformity. Data from patients who were lost to follow-up are included in our analysis up to the point of loss of contact.

Fig. 1. Use of dental putty to create a long-term retainer for maintenance therapy following treatment with InfantEar in a patient who presented after 3 weeks of age. The catalyst and base (*left*) are mixed to create the putty, which is then used to make an impression (*center*) for the removable retainer (*right*).

Parent satisfaction was surveyed at the conclusion of treatment by asking parents whether they were satisfied with the outcomes of treatment and whether, based on the outcome, they would pursue ear molding again. Responses to these questions were recorded in the chart and tabulated during retrospective review. The chi-square and Fisher's exact tests were used, as appropriate, to compare parent satisfaction rates between groups.

Table 1. Patient Demographics*

Variable	Value (%)
No. of patients	246
No. of ears	385
Age at presentation, days	
Mean	22.8
Range	3–156
Type of auricular anomaly	
Mixed deformity	92 (37.4)
Helical rim	70 (28.5)
Prominent	26 (10.6)
Lidding/lop	23 (9.3)
Stahl ear	9 (3.6)
Conchal crus	8 (3.3)
Cupping	7 (2.8)
Cryptotia	2 (0.8)
Not recorded	11 (4.5)
Mixed deformity subclassification†	
Helical rim and prominent	36 (39.1)
Helical rim and lidding/lop	19 (20.6)
Helical rim and Stahl ear	9 (9.8)
Prominent and lidding/lop	8 (8.7)
Prominent and cupping	7 (7.6)
Cupping and helical rim	5 (5.4)
Prominent and conchal crus	3 (3.3)
Stahl ear and lidding/lop	1 (1.1)
Stahl ear and prominent	1 (1.1)
Lidding/lop and cupping	1 (1.1)
Helical rim and conchal crus	1 (1.1)
Cupping and conchal crus	1 (1.1)

*Those combinations not listed had frequencies of zero.
†Frequency is of 92 patients classified as having mixed ear anomaly.

Of note, the use of a qualitative approach to assess parent satisfaction is a limitation of our study and could be improved on by implementing a more quantitative measure of parent satisfaction in the future.

RESULTS

The retrospective review included 246 patients ranging in age at presentation from less than 1 week to 22 weeks. From a total 385 ears, 374 ears were classified by presenting deformity as mixed, helical rim, prominent, lidding/lop, Stahl ear, conchal crus, and cupping (Table 1). A mixed deformity was defined as a presentation featuring at least two deformity subcategories (Fig. 2). Two patients were also noted to have cryptotia. Eleven ears were excluded from classification because the presenting anomaly could not be determined during retrospective review.

Deformity-Specific Treatment Recommendations

By the end of this 10-year experience, the surgeon was implementing modifications in over 30 percent of patients to customize treatment. Recommendations for the treatment of each specific type of ear deformity are summarized in Table 2. When subsets of patients in whom modifications were used were compared to those who were treated with unaltered conventional systems, parent satisfaction with outcomes was significantly higher for patients with helical rim deformities treated with modified systems (modified, 77.8 percent; unmodified; 55.8 percent; $p = 0.036$). Similar results were seen in patients with prominent ear

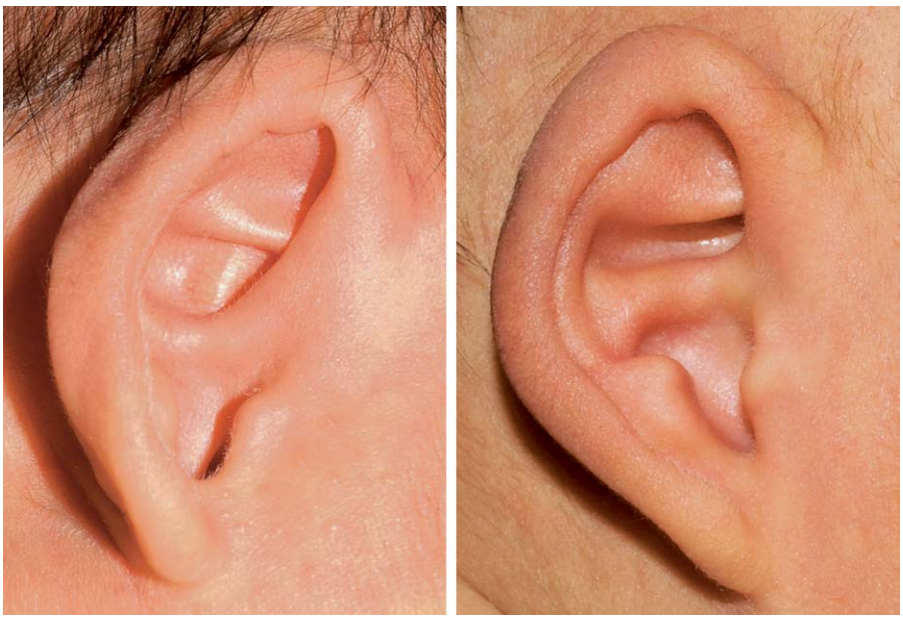

Fig. 2. Example of successful correction of bilateral mixed ear deformity (helical rim, conchal, and prominent). Before (*left*) and after (*right*) treatment with an EarWell modified with soldering wire and a conchal former.

deformities (modified, 69.2 percent; unmodified, 43.6 percent; $p = 0.031$).

To more directly assess the efficacies of modified and unmodified systems, we conducted comparisons within the subgroups of isolated helical rim and prominent deformities. These two deformities were selected for comparison because there were sufficient frequencies of patients with these isolated deformities who were treated with modified and unmodified systems, respectively. Patients with helical rim and prominent ear deformities encountered within a mixed ear deformity were excluded from this analysis. Across the entire cohort, encountered treatment complications were skin breakdown [26 patients (10.6 percent), skin irritation [12 patients (4.8 percent)], ulceration [five patients (2.0 percent)], and local infection [four patients (1.6 percent)]. Within the unmodified helical rim deformity subgroup, eight patients experienced complications (two skin irritation; six skin breakdown), whereas in the modified helical rim subgroup, two patients experienced complications (one local infection and one skin breakdown). There was no significant difference in complication rates between the unmodified and modified helical rim subgroups ($p = 0.123$). Similarly, within the unmodified prominent ear deformity subgroup, two patients experienced skin irritation, whereas in the modified prominent ear deformity subgroup, one patient experienced local infection and one had skin breakdown, with no significant differences between the groups ($p = 0.240$). This analysis suggests that the device modifications made by our senior author do not increase treatment morbidity.

Age-Specific Treatment Recommendations

Of the 246 patients included in the study, 152 (62 percent) presented before 3 weeks of age. Initiation of ear molding is typically recommended within the first 3 weeks of life given the evidence of optimized correction, shorter duration of treatment, increased tolerability, and decreased rates of recurrence.[3,7,10,11,20] Relatively high rates of parent and guardian satisfaction were achieved in cases presenting at or after 3 weeks of age in our population. Of 47 surveyed parents and guardians in this subset, only five reported dissatisfaction with outcomes. We correlate this satisfaction rate with the protocol we developed for treating the late-presenting patient. For patients presenting at or after 3 weeks of age, the InfantEar is preferred to accommodate the larger ear. Among patients who presented at or after 3 weeks, those treated with the InfantEar experienced significantly fewer device fallout incidents (EarWell, 1.12 incidents; InfantEar, 0.52 incidents; $p = 0.035$), required fewer device reapplications (EarWell, 1.70 reapplications; InfantEar, 0.71 reapplications; $p = 0.007$), and had lower rates of treatment complications (EarWell, 24.6 percent; InfantEar, 4.8 percent; $p = 0.046$). The protocol for these late-presenting patients involves treating with the InfantEar for 6

Table 2. Recommendations for Modifying Standard Ear Molding Correction Systems Based on Type of Presenting Deformity if Standard Kit Cannot Achieve Desired Form

Deformity	Protocol
Stahl ear	1. Affix posterior cradle/retractors (EarWell) or base plate, conformer, and rim piece (InfantEar). 2. Depress third crus with CTA while injecting dental impression material or InfantEar silicone gel. 3. Trim CTA flush with cradle. 4. Affix anterior shell (EarWell).*
Helical rim/scaphal	1. Affix posterior cradle/retractors (EarWell) or base plate, conformer, and rim piece (InfantEar). 2. Use soldering wire to create desired scaphal form, leave one end long to help position while compound/glue sets. 3. Secure wire with dermal glue, impression compound, or InfantEar silicone gel. 4. Trim long end of wire flush with gel or cradle. 5. Affix anterior shell (EarWell).
Prominent/protruding	EarWell 1. Affix posterior cradle. 2. Optionally, cut away protrusion within cradle. 3. Place retractors. 4. Place conchal former. 5. Affix anterior shell. InfantEar 1. Affix base plate, conformer, and rim piece. 2. Push conchal bowl posteriorly with CTA. 3. Inject silicone gel. 4. Cut CTA flush with silicone gel.
Projecting lobe	1. Apply device according to manufacturer guidelines. 2. If a deformity is isolated, apply dermal glue to posterior edge of lobe and affix into position.
Cupping/lidding/lop/conchal	1. Assess severity of deformity. 2. For more severe cases, use InfantEar. 3. Apply device according to manufacturer guidelines. 4. If patient is older than 3 wk, use dental impression material to create custom stent to use with either system. Position ear with CTA while compound sets. 5. When ear achieves desired shape, use dental putty to create long-term retainer for maintenance of form.
Cryptotia	1. Apply device according to manufacturer guidelines. 2. Position retractors under superior cartilage. At each weekly visit, reposition retractors to remain positioned under the cartilage as it is lifted.

CTA, cotton-tip applicator.
*If deformity is not corrected after 4 to 6 weeks, create custom stent from dental putty.

weeks, removing the InfantEar to assess shape, and subsequently creating a custom stent out of dental impression material to be worn for several months (Fig. 1).

DISCUSSION

Initially, prefabricated molding systems were used exactly as recommended by their manufacturers, but as our experience grew, we began to modify our techniques to improve outcomes of treating increasingly complex deformities. Although both the EarWell and InfantEar effectively correct ear deformities, we have developed preferences for each system that depend on patient presentation. In younger patients and those with less complex deformities, the EarWell system is faster to apply, has a lower profile, and obtains excellent results. The InfantEar has a less restrictive design that allows the kit to accommodate ears of infants who present at or after 3 weeks of age. The use of the silicone gel included in the InfantEar kit allows for more even distribution of force with fewer isolated pressure points and decreased risk of skin breakdown. We have demonstrated that both systems can be modified to optimize outcomes.

Modifications of Device Application

The application instructions for the EarWell and InfantEar are found on the websites of the manufacturers. Our recommendations for each correction system and our deformity-specific modification protocols are described below.

EarWell Application

The cradle is positioned over the ear to ensure that there is enough room between the helical rim and the cradle rim to accommodate the rim-modifying retractor. During application and before affixing

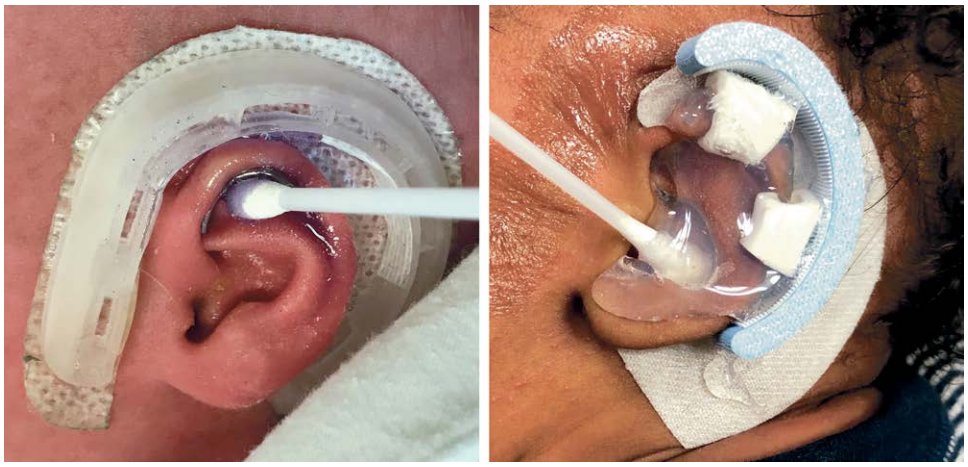

Fig. 3. (*Left*) Use of a cotton-tip applicator in combination with an EarWell to correct a left ear helical rim-scaphal deformity. (*Right*) Use of a cotton-tip applicator to push a protruding conchal bowl posteriorly in a patient with a left ear protruding ear deformity. The cotton-tip applicator is fixed in position with InfantEar silicone gel before being trimmed flush with the set gel.

the cradle, a determination is made as to whether or not to use scissors to remove the ridge of the cradle that lies under the superior crus. In infants younger than 2 weeks, retaining the ridge may lead to an overly contoured superior crus that adversely affects the shape of the scapha and helical rim. Before fastening the cradle, the edges of the adhesive tape are loosened slightly to facilitate removal once the cradle is positioned. The retractors can subsequently be placed as described by the manufacturer.

InfantEar Application

We have not found a need to modify the application of the InfantEar beyond manufacturer guidelines. The one additional step we perform, when indicated, aims to control cartilaginous form further than what can be achieved with standard retractors (Fig. 3). To do so, a cotton-tip applicator is used to secure cartilage in its desired form while silicone gel is applied. After the gel has set, the cotton-tip applicator is trimmed flush to the cradle with its tip embedded in the gel.

Helical Rim and Scaphal Deformities

Helical rim and scaphal anomalies are the most commonly encountered ear deformities; given their anatomical association and frequent concurrence, we will consider them as a single deformity.[5,13] These deformities vary from mild helical rim irregularity to severe rim distortion.[5]

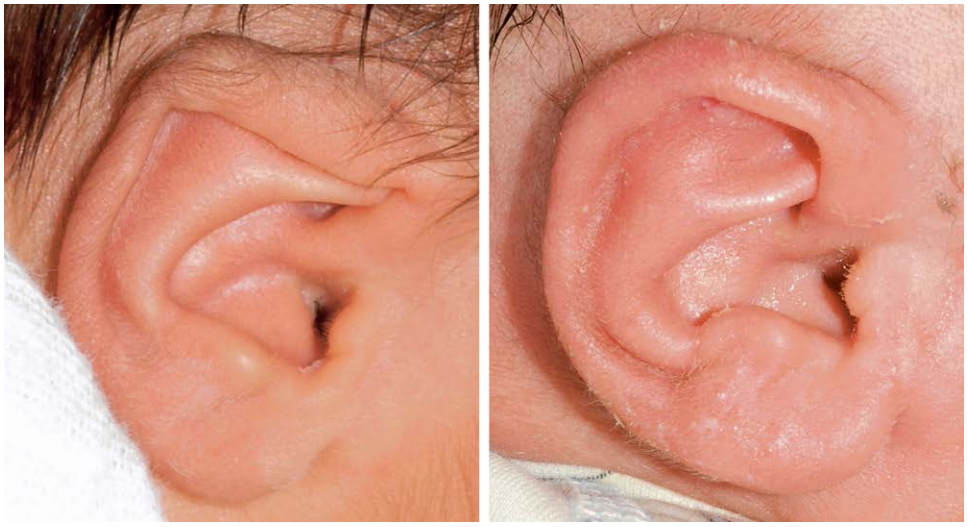

Fig. 4. Example of successful correction of a helical rim ear deformity. Before (*left*) and after (*right*) treatment that included the use of a conchal former.

Both systems are effective in treating the majority of rim deformities such that the general public is able to appreciate the improvement after molding (Fig. 4).[13] The retractors are positioned to create normal helical rim curvature and correct rim hooding by retracting the hooded tissue until normal helical rim contour is achieved.

Certain rim-scaphal anomalies cannot be corrected by standard kit retractors. An initial approach to these deformities is to use soldering wire to create the desired scaphal form and secure the wire with dermal glue or impression compound to serve as a stent (Fig. 5). When using wire, it is important to select a gauge with a diameter that sufficiently engages the majority of the scaphal concavity and creates a normal sulcus (Fig. 6). One end of the wire is left long and used as a handle to hold the wire in its desired position as it is secured with glue, impression compound, or the standard retractors. Once properly affixed, the long end is trimmed flush to the molding cradle. A sharp

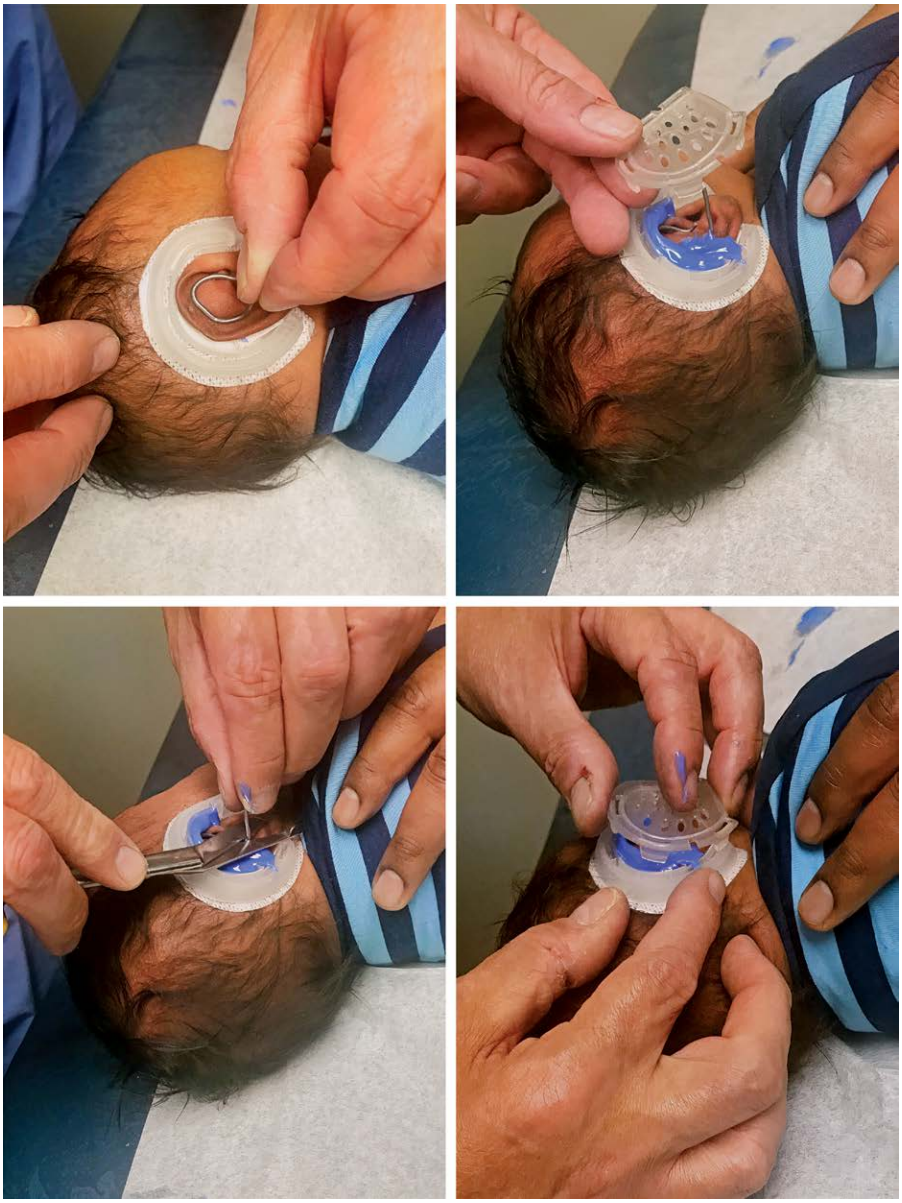

Fig. 5. Use of soldering wire to mold the scapha of a patient with a right ear helical rim deformity. (*Above*) Positioning the wire in the helical groove and fixating it with dental impression material. (*Below*) Trimming the wire flush with the molding cradle and applying the EarWell cover.

edge can always be bent away from the ear and secured under the cradle cover to decrease the risk of irritation.

If the presenting deformity is complicated by a deficiency of scaphal skin, correction may require a skin graft (Fig. 7). In these cases, we inform parents of the likely need for skin grafting but recommend initial improvement of the deformity with molding. If the appearance of the ear continues to be an issue following molding, a skin graft can be used to correct the residual deformity.

Prominent or Protruding Ears

The presence of a prominent conchal bowl and the absence of a superior crus are the two abnormalities that, alone or in combination, characterize the prominent or protruding ear.[3,5,21] These abnormalities demand different treatment strategies: the conchal bowl necessitates anteriorly directed forces, whereas the absent superior crus requires anterior pressure with posterior stenting.[3,5] The protruding ear deformity has been shown to be progressive and unamenable to spontaneous correction, making it imperative to evaluate the superior crus and conchal bowl at the initial visit, as flattening of the superior crus may be subtle.[2,22] Even a minor ear protrusion may worsen with time, making molding both corrective and preventative in these patients.[2] Correction of the protruding ear is straightforward with either system.

When using the EarWell, the cradle is placed, and a decision is made as to whether or not to cut away the protrusion within the cradle. In younger patients, this protrusion can create an unnatural appearance, and the aesthetics of the ear are improved by its removal. Once the cradle is secure, retractors are placed to position the helical rim. A conchal former is subsequently placed to posteriorly orient the conchal bowl.

The InfantEar is placed and retractors are used to shape the helical rim. If the conchal bowl is protruding, a cotton-tip applicator is used to push it posteriorly; the cotton-tip applicator is held until the silicone sets (Fig. 3). After the gel cures, the cotton-tip applicator is cut flush to the surface of the device.

Stahl Ear

The Stahl ear deformity is characterized by a third crus and a pointed superior ear.[3,5,23] Correcting this anomaly aims to obliterate the third crus and reshape the helical rim and scapha.[23,24] With both systems, the retractors are used to flatten the third crus and round the apex

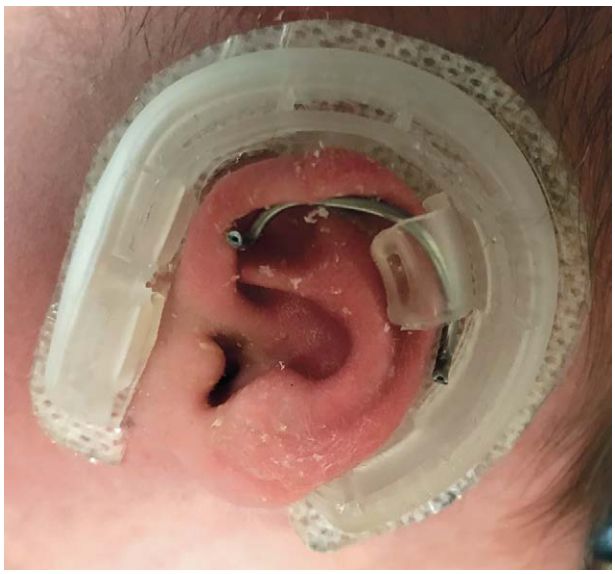

Fig. 6. Modification of the EarWell system with soldering wire held in place with the standard retractor to custom fit the patient and correct a left ear helical rim deformity.

of the ear to correct the pointed shape (Fig. 8). If the retractors do not fully correct the third crus, dental impression material can be used with the EarWell system or a cotton-tip applicator with the InfantEar. When using the EarWell, a cotton-tip applicator is used to depress the third crus, and self-curing dental impression material is injected around the cotton-tip applicator and

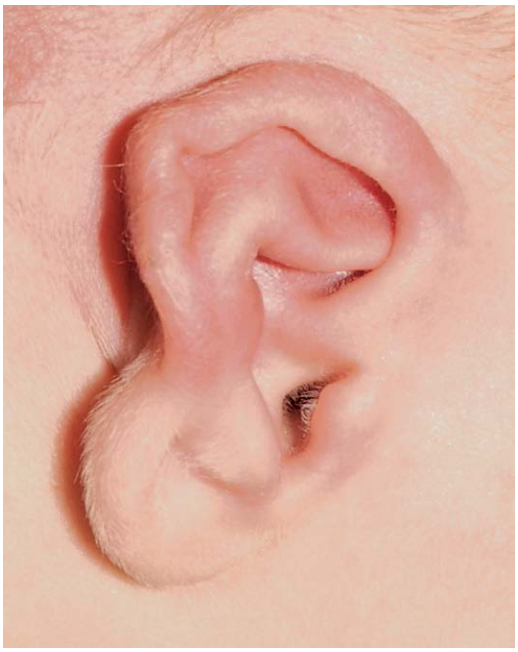

Fig. 7. Example of a patient who presented at 9 days of age with a scaphal skin deformity of the right ear that would benefit from surgical correction using a skin graft.

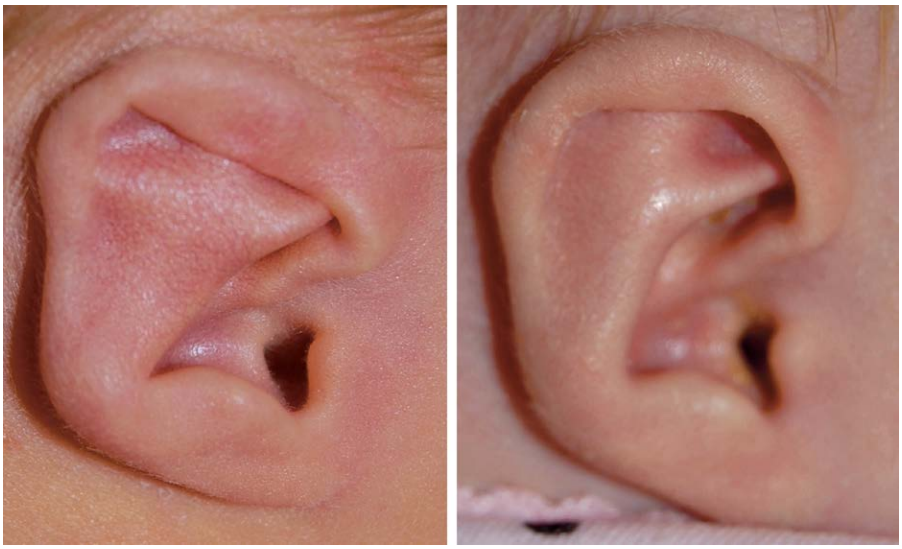

Fig. 8. Example of successful correction of a Stahl ear deformity. Before (*left*) and after (*right*) treatment with an EarWell modified with a cotton-tip applicator and dental impression material.

in and around the superior one-third of the ear. This encases the cotton-tip applicator, which is trimmed. With the InfantEar, silicone is injected around the cotton-tip applicator while it is used to flatten the third crus. If a residual third crus deformity is present after a 4- to 6-week treatment course, a custom positioning device is fabricated from dental putty to maintain ear shape. This prosthesis is taped to the ear and can be worn for months, if necessary, to maintain ear shape without the need for frequent visits.

Conchal Anomalies

Conchal anomalies have historically been considered difficult to correct with molding because of the inability of the mold to place adequate pressure on the conchal crus, an extra cartilage bar running across the conchal fossa.[5,7,25] In conchal anomalies that cannot be corrected with standard kit retractors, we use a cotton-tip applicator to hold the ear cartilage in the desired position while a dental impression compound is injected into the ear mold (Fig. 3). Once the compound is set, the protruding portion of the cotton-tip applicator can be trimmed and the cradle cover applied. In these cases, dental putty can subsequently be used for long-term maintenance.

Lobe Anomalies

An isolated protruding earlobe frequently occurs without an underlying cartilaginous abnormality.[19] An isolated overprojecting lobe is treated by applying dermal glue to the posterior edge of the lobe and using the glue to maintain this position for the desired length of time. Dermal glue is usually used for 3 to 4 weeks in infants younger than 3 weeks. Occasionally, a prominent lobe is associated with conchal hypertrophy or an inferior antihelical rim component.[19] In these cases, effective treatment consists of a conchal conformer with an inferiorly placed retractor and dermal glue applied to the posterior lobe.

Cup, Constricted, or Lop Ear

Subcategorization of ear deformities varies, with some studies classifying cup ear as a discrete deformity and others subclassifying it as a form of constricted ear.[11,26] For our purposes, we will group together ears that are characterized by a lidding, constricted, or small helical rim.[3] It is unrealistic to give the ear a normal dimension, but it is possible to unfurl the helical rim and restore a more normal shape despite reduced size (Fig. 9). For these anomalies, either system may be used. In more severe anomalies, we prefer the InfantEar, as the silicone gel allows for a more customized fit. For patients who present after 3 weeks of age, we initially create a custom stent using dental impression material that is used in conjunction with the EarWell or InfantEar. Once desired shape is achieved, the dental putty is used to create a new stent for long-term maintenance.

Cryptotia

Cryptotia is characterized by burying of the superior cartilage beneath the temporal

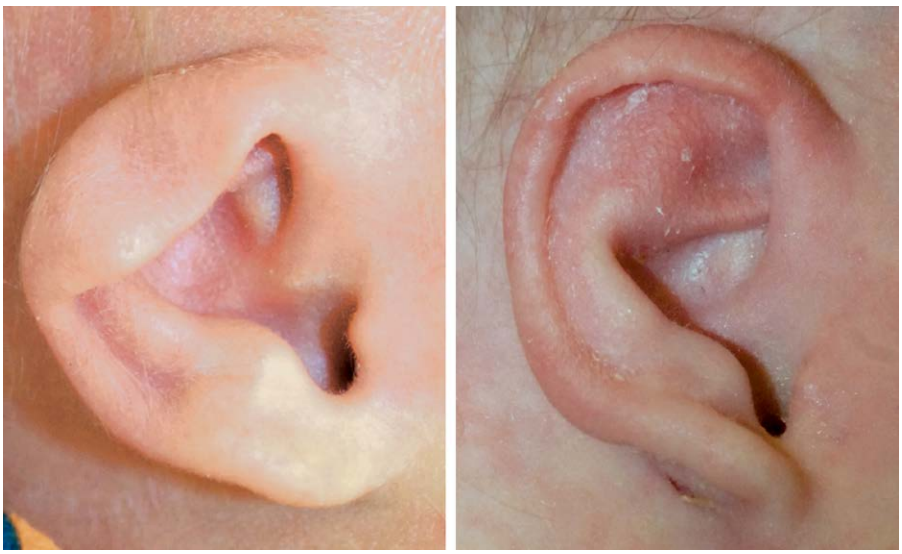

Fig. 9. Example of successful correction of a constricted ear malformation with cupping deformity before (*left*) and after (*right*) treatment with an EarWell modified by a custom stent made of dental impression material.

skin.[27] Cases of cryptotia are challenging but can frequently be improved with molding.[27] Our approach for this malformation is similar to that for cup, lop, and constricted ears. It entails gradually lifting the superior helical cartilage with retractors. The retractors are continuously modified to remain positioned under the cartilage as it is lifted from the skin. These patients are seen weekly to ensure optimal elevation of the buried cartilage.

The Late-Presenting Patient

Although most studies agree that an earlier start to ear molding optimizes outcomes and treatment duration, there is no consensus as to an age limit for intervention.[6,28] Over the past 10 years, we have been extending the maximum age of treatment initiation (Table 1). During initiation of treatment for older infants, we emphasize that the goal is not a perfect result but rather an ear shape that is close enough to normal to not become a source of stigma.[8,9] Although treatment should ideally be initiated within 3 weeks of birth, many caregivers are eager to attempt molding in older children. Provided that appropriate expectations are set, we are able to achieve both guardian and physician satisfaction, even in patients in whom treatment is initiated as late as 13 weeks.

Device application in the late-presenting patient is as described above with the exception that we almost exclusively use the InfantEar because of its larger fit. Although we recognize that the choice between the EarWell and InfantEar has traditionally been dependent on personal practice rather than absolute necessity, our findings support the use of the InfantEar over the EarWell for late-presenting patients given lower rates of complications, fallout, and device replacements with the InfantEar. In these cases, we aim to use the InfantEar for 6 weeks. Once initial correction is achieved, a custom molding device made out of dental putty is worn for an additional 8 to 10 weeks to establish durable correction.

CONCLUSIONS

Although ear molding is conventionally performed with prefabricated correction systems, our experience demonstrates that it should be a dynamic, personalized process using techniques beyond those described by system manuals. In many patients, custom modifications are made and treatment is adapted continuously as the ear progresses toward its desired form. Over the past 10 years, we have determined that every ear should ideally be treated with a tailored approach to optimize outcomes and parent satisfaction.

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