International Society of Craniofacial Surgery

ISCFS NEWSLETTER

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MESSAGE FROM THE EDITOR

Dear Colleagues and Friends,

As we enter the summer months, I am reminded once again of the remarkable global community that defines the International Society of Craniofacial Surgery. Across continents, languages, and healthcare systems, we remain united by a common purpose: improving the lives of children and adults affected by craniofacial differences. Our shared commitment to patients, education, discovery, and innovation continues to serve as a powerful reminder that medicine remains one of humanity's most collaborative endeavors.

This spirit of international partnership has been the foundation of the ISCFS since its inception. It is what makes our society unique. Whether through our biennial meetings, regional collaborations, educational webinars, or personal exchanges between colleagues, we continue to demonstrate that knowledge advances most rapidly when it is shared openly and generously. The Webinar on June 16th, "Cleft Orthognathic Surgery", featuring Drs. Choi, Susarla, and Yang was one of our liveliest and best attended sessions, with a mix of the "tried and true" and innovation. Excitement is already building for our next ISCFS Biennial Congress in Rotterdam in 2027. These meetings represent far more than scientific conferences. They are opportunities to strengthen friendships, establish collaborations, mentor younger colleagues, and renew our collective commitment to advancing craniofacial surgery worldwide.

As we reflect on the future of our specialty, it is impossible to ignore the rapid emergence of artificial intelligence (AI). Few technological advances have generated as much enthusiasm—or as many questions—as AI. While much of the public discussion has focused on sensational predictions, the reality is that artificial intelligence is already beginning to influence the daily practice of medicine in meaningful ways.

In craniofacial surgery, AI has the potential to enhance many aspects of patient care. Advanced imaging analysis may improve diagnosis and surgical planning. Machine learning algorithms may help identify subtle patterns in outcomes data that would otherwise go unrecognized.

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Predictive models could eventually assist clinicians in counseling families regarding operative risks, anticipated growth patterns, and long-term functional outcomes. These technologies are unlikely to replace clinical judgment, but they may augment our ability to make more informed decisions.

Perhaps one of the most immediate opportunities lies in reducing the administrative burden that increasingly consumes physician time. Electronic medical records have brought many benefits, but they have also created substantial documentation requirements that often pull clinicians away from direct patient interaction. AI-assisted documentation tools are already demonstrating the ability to summarize clinical encounters, generate preliminary notes, organize data, and streamline communication. If implemented thoughtfully, these technologies may allow physicians to spend less time typing and more time caring for patients and families.

The emergence of "big data" presents another intriguing possibility. Historically, many treatment decisions in craniofacial surgery have been guided by institutional experience, relatively small studies, and expert consensus. As international databases grow and multicenter collaborations expand, we may gain access to datasets of unprecedented scale. Such information could help refine treatment algorithms, identify best practices, and improve our understanding of outcomes across diverse patient populations. The opportunity to learn from thousands rather than hundreds of patients may fundamentally reshape how we evaluate evidence and develop standards of care.

At the same time, we must approach these advances with appropriate humility and caution. Data are only as good as the systems used to collect them. Algorithms may unintentionally perpetuate bias if not carefully designed and validated. Most importantly, no technological innovation can replace the human qualities that define our profession: compassion, empathy, judgment, creativity, and the trust that develops between surgeon and patient.

The future of craniofacial surgery will undoubtedly be shaped by technology, but it will continue to be driven by people. Our responsibility is not merely to adopt new tools, but to ensure they are used in ways that enhance patient care, expand access, and uphold the values that have always guided our specialty.

Thank you for your continued commitment to the ISCFS and to the patients we serve. I look forward to seeing many of you at our upcoming educational programs and future meetings. Together, we will continue to advance our field, strengthen our global community, and improve the lives of those entrusted to our care.

With warm regards,

JESSE TAYLOR
ISCFS Secretary-Treasurer
UNITED STATES

MESSAGE FROM THE PRESIDENT

Dear ISCFS members,

Besides team work, next year's ISCFS Congress in Rotterdam will also pay attention to art. The first speaker that I can announce is Arthur Brand, a historian and art crime investigator. He has recovered numerous pieces of art that were stolen. For instance, he retrieved Oscar Wilde's ring, Picasso's *Buste de Femme*, and Van Gogh's painting The Parsonage Garden at Nuenen. In his lecture, he will introduce us to the fate of pieces of art that were stolen, how he gets into contact with those involved, and how he is able to retrieve them. You will be fascinated by the stories he has to tell.

Within this topic, I include a first piece of art that will inspire you. It is the statue DUNA from the Spanish artist Jaume Plensa. This impressive statue is placed in the center of the central hall of our hospital and feels like part of the craniofacial team.

Jaume Plensa: "It's a very unusual place for me, but I think it's great. I am seeking for a soul to take care of; I think it's great that there's a person's body. Duna is based on the dialogue between the body, mind and spirit. My special plan for this view, as a kind of mirror, mirror on offer, making sure that everyone is able to flip. You have to try to imagine how many beautiful things we have inside of us to keep up. The hospital is a public space, a place where you are able to think about humanity and society at large. Some of the people are suffering, and some of them are lucky enough to know all of that is just a terrible time. But that's life, and it is likely that the strength of one's life. A place where you'll live life to the fullest, and gifts. I hope that the people at the Duna shall meet in order to be able to sit and enjoy it. My photos are sure to be cherished and to be touched." Plensa's enigmatic narrow heads imply that what is most worthy of being seen is not outside, but within ourselves. "Looking can get in the way of a real understanding," says the artist, "you should not only look, but also feel "because according to him, it is not about things as such, but about what they bring about.

During the meeting, we will provide various opportunities to encounter this and other artwork in our city.

In future newsletters, I will announce more details about the program.

Irene Mathijssen -
President
The Netherlands

IRENE MATHIJSSEN
ISCFS President
THE NETHERLANDS

"You will be fascinated by the stories he has to tell."

NEXT WEBINAR TOPIC – SEPTEMBER

CLEFT AND FACIAL BONE GRAFTING

SEPTEMBER 8TH, 2026 | 1600 UTC

Join us on September 8th 2026 at 1600 UTC for an in-depth discussion.

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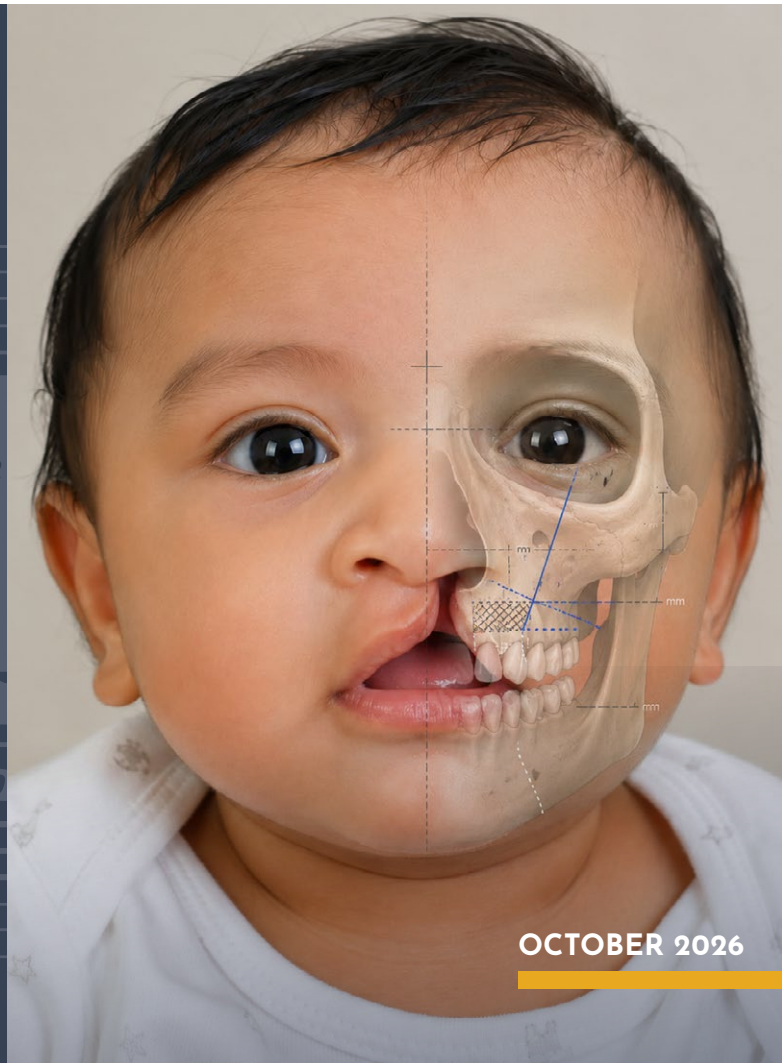
MEMBERS! Please write an article for

MY WAY:

Cleft and Facial Bone Grafting

To submit an article of 750-1000 words with up to 5 JPG images as needed, send it to admin@iscfs.org no later than Tuesday, September 15, 2026.



OCTOBER 2026

WINDOW INTO HISTORY

CLEFT LIP SURGERY ORIGIN AND EVOLUTION

Introduction
Cleft lip repair was not mentioned in the medical literature until the middle of the 14th century. Before that, lip surgery was mainly from sequelae of traumas or defects from cancer excision.

From an historical standpoint, we can roughly divide cleft lip surgery in two different periods: a) the *beginning*, during the Middle Ages and Renaissance; b) the *evolution*, during the 19th and 20th centuries. During this long period of time, that is the 17th and 18th centuries, progress in surgical cleft lip repair was minimal. The technique was almost the same, with the same type of approach, same incisions, and same sutures. The only difference with respect to the past was the fact that treatment of cleft lip became an integral part of major surgical textbooks, often with the addition of images ***(Figure 1)***. As we shall see, the great breakthroughs same in the 19th and 20th centuries.

Middle Ages and Renaissance
During the Middle Ages, cleft lip surgery was first reported by **Jehan Yperman** (ca.1260-1331), a Flemish surgeon, native of Ypres (Belgium) and a student of Lanfranchi (died 1315). Yperman was the author of *Cyrurgie* (Surgery), a manuscript in the Flemish language dealing mainly with facial injuries and malformations. It included an account on the management and repair of uni- and bi-lateral cleft lip, using a scalpel to freshen the borders of the defect. Closure of the cleft was by suturing the margins together using a triangular needle and a twisted waxed thread. Another long needle was passed through the lip at a certain distance from

Figure 1 - An 18th century operating table with the instruments necessary for cleft-lip closure. Among them: curved needle with thread (A), scissors from freshening the margins (D), scalpel (E), haemostatic pincers (F), head bandage (N). From: Dionis P. Cours des Opérations de Chirurgie. Paris: Laurent d'Houry, 1707.

RICCARDO F. MAZZOLA
History Editor
ITALY

"Cleft lip repair was not mentioned in the medical literature until the middle of the 14th century."

the margins to avoid possible wound breakdown. Regrettably, the manuscipt, long forgotten in a British Library, was rediscovered and published in 1863, that is, more than five centuries later. [1]

During the Renaissance, three great surgeons reported on the management of cleft lip: Pierre Franco, Ambroise Paré and later Jacques Guillemeau.

Pierre Franco (ca. 1500-1578) was born in Turriers (Provence, southern France). Initially, he was an itinerant surgeon, who learned surgery probably through apprenticeship and direct observation, and devoted himself to herniotomy, lithotomy, treatment of cataracts, and fractures. In 1545, for religious reasons he had to leave Provence (he was a Huguenot) and established his surgical practice in Lausanne (Switzerland). In 1556, he published *Petit Traité…* (Small Treatise…), which was later expanded and reissued in 1561 with the following title *Traité des Hernies* (…) (Treatise on Hernias (…). Apart from hernias, bladder stones and cataracts, the tract includes the first printed report on management of cleft lip. [2] Franco died in about 1578.

In Chapter 118, Franco describes: *On cleft of mouths and lips either congenital or acquired - Cleft lips are sometimes congenital, due to a defect of nature. On occasion, they are caused by an accident, like a fall, hit, or cut. Sometimes the cleft is only minimal, while in other cases the cleft is as long and wide as the lip or mouth and so large to include the incisors and occasionally also the canines. In case the palate is also cleft, the patient must talk through the nose, with great discomfort when one listens to his speech. However, when this opening is closed, he speaks normally. Those who have a cleft palate are more difficult to treat, as they always speak through the nose. (…) There are some ignorant people who believe that since God has given this congenital defect, it cannot be repaired, which is something crazy.*

In Chapter 119 and 120, Franco describes his technique for *The treatment of cleft lips – First of all, the skin of the lips where they have to be approximated one to the other, have to be cut either with a knife, or with scissors, or with another instrument, like cautery. If cautery is used, it is better to wait until the eschar has fallen (…). Once achieved, the margins should be joined one to the other and observed that they are well united. We can do this in the following way: using two pieces of lint, triangularly shaped, whose size depends on the patient. This solution is very clean and it produces less pain and gives a better scar because there is no needle, which is better and desirable especially on the face and particularly for girls. (…). The other method is to suture the margins, using the instruments mentioned. We must use needles as we do for other wounds: having the needle threaded, it is necessary to include a good amount of margin so that it holds better, passing from the inner to the outer (margin) and placing two or three (sutures) according to the case. Then with the thread, one has to make two or three twists around it, and not more, to avoid that the thread impairs the remedies, so we will reach the margins and prevent their joining completely. If margins are so far apart that they cannot be brought together, they must be cut inside, preserving the muscles as much as possible, to maintain movement. However, if it is necessary, one can cut them, rather than leaving a defect.*

Ambroise Paré (1510-1590) born in Laval, near Mayenne (northern France), was an army surgeon and

Figure 2 - First image of a cleft lip suture in medical literature. The needle is passed through the freshened margins of the cleft and the thread is wrapped around it in a figure eight to maintain the margins approximated. From: Paré A. Ref . 3

dedicated himself to the management of wounds. He is regarded as the greatest and the most talented surgeon of the Renaissance for his significant contributions to surgery. The description of his method of cleft lip suture is accompanied by the **first image** in medical literature [3]: *When the wound is great and deep, and the lips distant, these sutures (i.e., traditional) can be of little or no use. For this, you must employ quadrangular or triangular needles, so that they may readily and easily enter into the flesh, without much pain, with a waxed thread and passed through the margins of the wound, and then wrapping the thread five or six times. The needles shall be there until the perfect agglutination of the wound. This type of suturing is done to the lips, but is also necessary for hare lips, that is lips divided since birth, by an error of the forming faculty. But such a suture will have no effect on agglutination if there remains any skin between the lips of the wound. For which reason, with such needles, we have to take enough flesh, as it appears in the illustration* ***(Figure 2)***.

Figure 3 - First printed illustration of a unilateral cleft lip in medical literature. Closure is by approximation of the margins, using the same procedure described by A. Paré (1561), supplemented by two relaxing incisions (F) in the cheek, to reduce tension. F

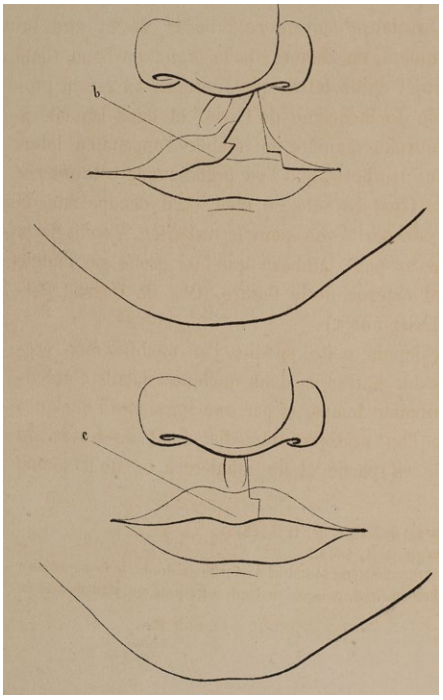


Figure 4 - Mirault's technique for closing unilateral cleft lip. From: Mirault G. Ref. 7

Born in Orléans, **Jacques Guillemeau** (1550-1612) was the favourite pupil of Ambroise Paré – who was also his father-in-law. He was a surgeon at Hôtel-Dieu, the most important hospital in Paris, and personal physician to Kings Charles IX, Henry III and Henry IV of France. He devoted himself to surgery on the battlefield and contributed to obstetrics, surgery, management of wounds, cleft lip and ophthalmology. In 1598, his contributions to anatomy and surgery were gathered in *Les oeuvres de Chirurgie* (Collected Surgical Works) and dedicated to King Henry IV. [4] *Les oeuvres* contains the **first printed illustration** of a unilateral cleft lip in medical literature ***(Figure 3)***. The technique for cleft closure basically overlaps with that of Ambroise Paré with the only difference that Guillemeau added two symmetrical relaxing crescent incisions in the cheek – *seulement au cuire, sans penetrerer en la bouche* (only in the skin, without entering the mouth) – to facilitate approximation.

The 19th and 20th Centuries

It was during the 19th and 20th centuries that the technique for cleft lip closure evolved significantly. Cleft lip pins were finally abandoned. The idea of replacing direct approximation of the margins, using an alternate type of suture, the so called flap method, started.

The proponent of this innovative concept was **Joseph-François Malgaigne** (1806-1865), one of the greatest surgeons of France in the 19th century. In 1844, he published *Nouvelle Méthode pour l'Opération du Bec-de-lièvre* (A New Method for cleft lip repair), in *Journal de Chirurgie*, a monthly scientific publication on surgery that he founded and directed. Basically, to approximate the margins, he designed a two-flap method, trying to preserve tissue as much as possible, *by borrowing as needed from the neighbouring parts.* (…) *It is the utilization of these lost cuttings that constitutes the new method.* Finally, he closed the margins with a straight line obtaining an unpleasant asymmetrical tubercle in the vermilion border. There was no illustration in the above-mentioned article. Malgaigne's drawing of the operation was published some time later in *Manuel de Médecine* Opératoire (Handbook of Operative Medicine). [5]

The method proposed by Malgaigne was certainly an improvement over the traditional procedures for cleft lip closure, but not sufficient to achieve a perfect result. **Germanicus Mirault** (1796-1879), a surgeon from Angers (western France), firmly contradicted Malgaigne's method. In the same *Journal de Chirurgie*, Mirault published *Lettre sur l'Opération du Bec-de-lièvre* (Letter on the Operation for Cleft Lip). He suggested the use of only one horizontal incision on the cleft side, which could pair an overlapping incision on the opposite side. In this way, Malgaigne's unaesthetic tubercle was avoided. However, the illustrations published in *Journal de Chirurgie* were very poor. Mirault reissued the letter, very important in the history of cleft lip surgery, as a separate account, improving the quality of the images and tracing the details of his technique, where he proposed a sort of triangular flap to close the lip defect. [6] Despite this, and because of the absence of technical drawings, understanding of his procedure remained a true dilemma. Not until 1871 when Mirault published a precise report of his technique and finally added two self-explanatory illustrations ***(Figure 4)***. [7]

Born in Angers (western France), into a family of doctors (his father was an ophthalmologist), **Germanicus Mirault** studied medicine in Angers. After his

father's death, he moved to Paris to complete his studies. For a period of time, he was a student of Malgaigne. He graduated in 1823 and returned to Angers, becoming Surgeon-in-Chief at Angers Hospital. An excellent surgeon, particularly for facial repairs, treatment of cleft lip and diseases of the eye, he was also a great teacher and very generous with poor patients. He was a corresponding member of the *Academy of Medicine* and of the *Society of Surgery* and was awarded the Legion of Honor in 1850. He retired in 1867, at the age of 71. During the war of 1870, he resumed his surgical activity until he died in 1879.

Commenting on Mirault's procedure, **Victor Veau** (1871-1949), one of the most renowned cleft surgeons of all time, in his book *Bec-de-lièvre* (Cleft lip) (1938), wrote: *Mirault is the giant of cleft lip surgery. (…) His first publication is unclear, due to the absence of self-explanatory illustrations. (…) After a long period of silence, Mirault returned to this question in a small twenty-page account, where an excellent image of his technique is reported. (…) Regrettably, as the publication did not appear in a scientific journal (…) it remained completely unnoticed. (…) For my part, after long consideration, I arrived at a very similar scheme. The only difference between what Mirault has done in 1871, and what I am currently doing in 1937, is that I am outlining the flap outside instead of outlining it inside.*

More information regarding this fascinating chapter of plastic surgery can be found in the book *Plastic Surgery – An illustrated History* by Mazzola RF and Foss CB. [8]

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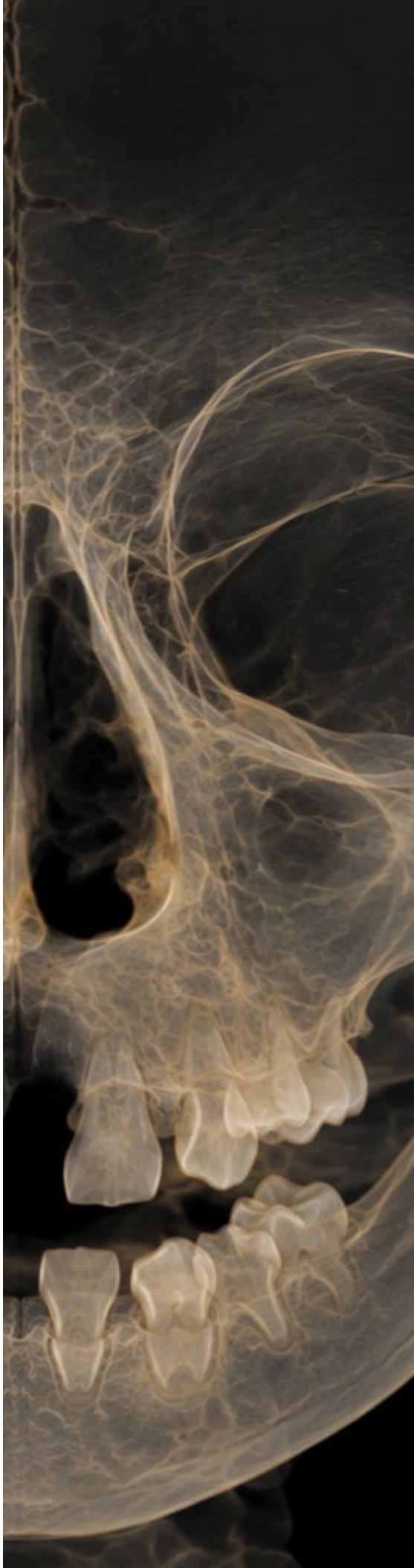

MY WAY:
PEARLS FOR CLEFT ORTHOGNATHIC SURGERY

SOLOMON LEE
UNITED STATES

HITESH KAPADIA
UNITED STATES

SRINIVAS M. SUSARLA
UNITED STATES

Orthognathic surgery in patients with cleft palate can be challenging due to differences in bone and soft-tissue anatomy related to both the primary diagnosis as well as the cumulative effects of sequential interventions. The strategies outlined below have helped us effectively navigate treatment for cleft-related skeletal malocclusions in this heterogeneous population.

I. Maxillary Distraction Osteogenesis: When Is It Indicated?

For some surgeons, Le Fort I distraction osteogenesis may be the preferred technique for advancements exceeding a specific threshold. However, compared to conventional surgery, distraction has a similar complication profile and potentially similar risk of relapse, mandates two

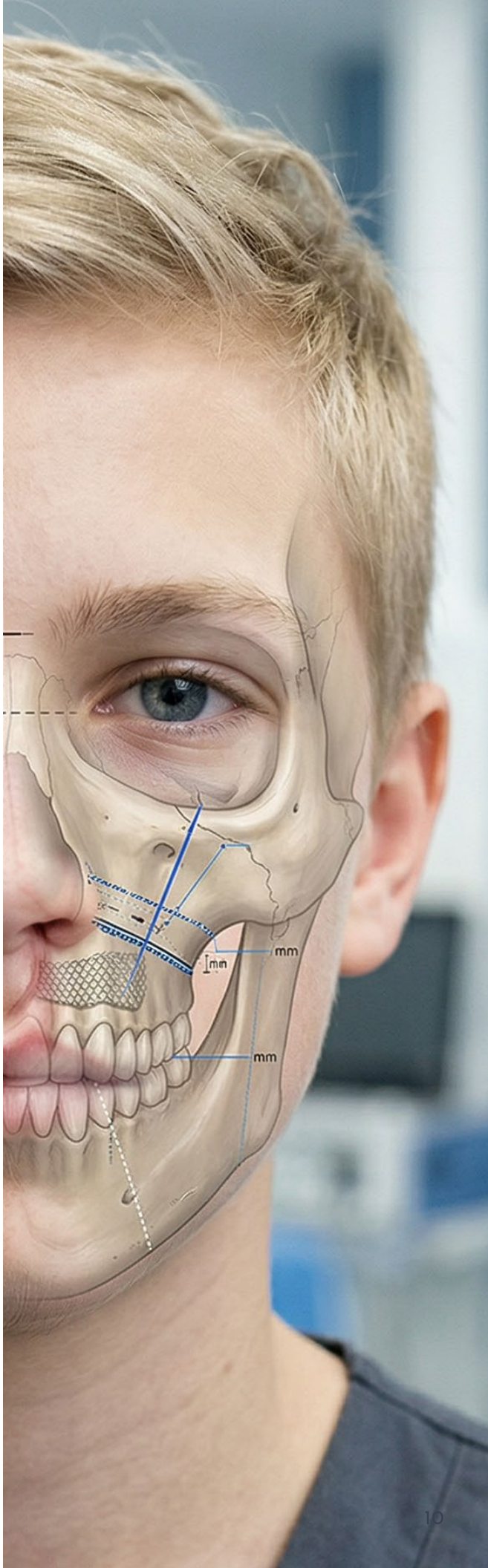

Figure 1: Conventional surgical advancement in a patient with bilateral cleft lip and palate. This patient underwent a Le Fort I osteotomy with linear advancement of 14 mm and mandibular sagittal split osteotomies to address mandibular midline asymmetry (top, pre-operative; bottom, end-treatment). Adapted from reference 13.

Figure 2: This patient with bilateral cleft lip and palate had an anterior crossbite of 12 mm at skeletal maturity (top, pre-operative). She underwent Le Fort I distraction osteogenesis with linear advancement of 15 mm using a rigid external device (bottom, end-treatment). Adapted from reference 13.

surgical interventions, requires skeletal overcorrection in growing patients, and does not reduce the risk of velopharyngeal insufficiency (VPI). [1-2]

Our experience, as well as those of other high-volume centers, suggest that conventional advancements larger than 10 mm can be feasible and stable when appropriately planned and executed ***(Figure 1)***. [3-6]

Weighing the risks of conventional advancement against distraction osteogenesis, we utilize distraction for cases where the magnitude of sagittal movement results in little to no bone-to-bone contact between the Le Fort I segment and native midface for fixation ***(Figure 2)*** and in patients with severe combined hard tissue and soft tissue deficiencies, such as patients with cleft palate and ectodermal dysplasia.

Distraction may be successfully accomplished using either internal, patient-specific devices, or a rigid external framework. Internal devices may be less cumbersome to patients but carry limitations of a set vector of movement and magnitude of sagittal advancement. Rigid external devices allow for some alteration of the occlusal plane during the activation period and larger sagittal movement, but are more burdensome to patients physically and psychosocially.

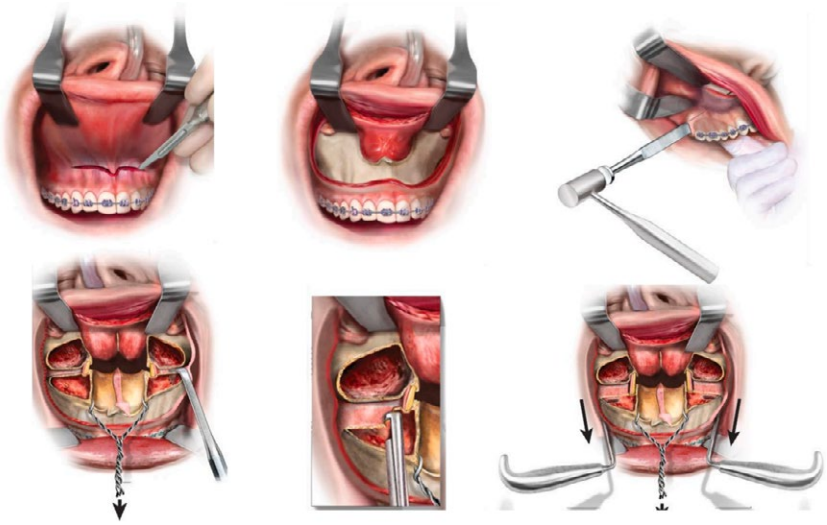

Figure 3: Technical modifications specific to the cleft Le Fort I osteotomy to assist with mobilization and allow for passive positioning of the maxilla. Adapted from reference 3.

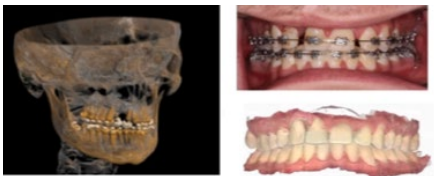

Figure 4: Segmental maxillary osteotomy to close a right-sided persistent alveolar cleft defect in a patient with right unilateral complete cleft lip and palate. Pre-operative CT (left) shows a right-sided alveolar cleft defect and missing lateral incisor. The pre-operative occlusion is shown on the top right. The end-treatment occlusion following two-segment Le Fort I osteotomy is shown on the bottom right. Adapted from reference 13.

When considering conventional advancement with significant sagittal movement, we have found the following technical modifications ***(Figure 3)*** helpful: 1) utilizing a limited incision, extending from the premolar to premolar, to preserve the lateral soft tissue attachments to the Le Fort I segment and the additional vascularity these afford, 2) transmucosal pterygomaxillary separation, which precludes the need for placing a sizeable osteotome through the dissection pocket and may be a safer alternative in patients with short distance between the pterygomaxillary junction and orbital floor, such as those with Treacher Collins syndrome, 3) meticulous release of scar from the posterior maxilla, including ostectomy around the descending palatine neurovascular bundle and 4) iterative anterior and posterior traction for full mobilization using a combination of wires at the piriform rims and pterygoid lifts posteriorly.

Figure 5: This patient with bilateral cleft lip and palate presented with a malpositioned premaxilla, bilateral alveolar cleft defects, and a fistula between the primary and secondary palate. They were treated with a three-segment Le Fort I osteotomy to address the complex dysmorphology (top, pre-treatment; bottom, post-operative). Adapted from reference 13.

Figure 6: Two-segment maxillary osteotomy with block iliac crest bone grafting to reconstruct the missing premaxilla and bring the maxillary canines to the lateral incisor position. This approach can reduce the prosthetic burden in a patient with bilateral cleft lip and palate with a missing premaxilla (top, pre-operative; bottom; end-treatment, including dental implant placement and prosthetic restoration of central incisors). Adapted from reference 13.

II. When Should You Consider a Multi-Segment Maxillary Osteotomy?

While most patients cared for in high-volume centers with experienced multi-disciplinary teams will have successful secondary alveolar bone grafting by age 10, some may have persistent alveolar cleft defects, with or without associated fistulae, at skeletal maturity. In these patients, the surgeon may consider a segmental maxillary osteotomy to address the alveolar cleft. [7-8]

In unilateral cases, this is typically a two-segment maxillary osteotomy through the alveolar cleft with advancement of the lesser segment to close the alveolar cleft gap and posterior transverse expansion as needed ***(Figure 4)***.

In bilateral cases ***(Figure 5)***, a three-segment (premaxillary and bilateral posterior segments) maxillary osteotomy may be considered, typically with transverse widening of the posterior segments and premaxillary repositioning.

Segmental osteotomies may also be considered in situations where the premaxilla is missing and dentoalveolar reconstruction with osseointegrated implants is anticipated. In these cases, a two-segment osteotomy can be utilized to bring the canines into the lateral incisor positions, minimizing the prosthetic burden ***(Figure 6)***. [9]

Figure 7: This patient with unilateral cleft lip and palate had an end-stage skeletal discrepancy characterized by severe maxillary hypoplasia as well as mild mandibular prognathism and asymmetry. She underwent bimaxillary surgery to achieve the appropriate occlusion and facial proportions. Top, pre-operative; bottom, post-operative. Adapted from reference 13.

III. When Should You Consider Bimaxillary Surgery?

The class III skeletal pattern seen in patients with cleft palate is most commonly attributable to maxillary hypoplasia. While many of these patients are effectively treated with a Le Fort I osteotomy, our experience, and those of similar centers, has shown that the mandible is frequently asymmetric (but rarely frankly prognathic). [10-11] In addition, there is increasing recognition of the concomitance of upper airway obstruction in patients with craniofacial differences, even if asymptomatic.

In this context, we frequently consider bimaxillary surgery for patients with cleft-related skeletal malocclusions to address mandibular asymmetries (midline deviation >2 mm, intergonial cant >4 degrees) and/or upper airway obstruction ***(Figure 7)***. While a less frequent

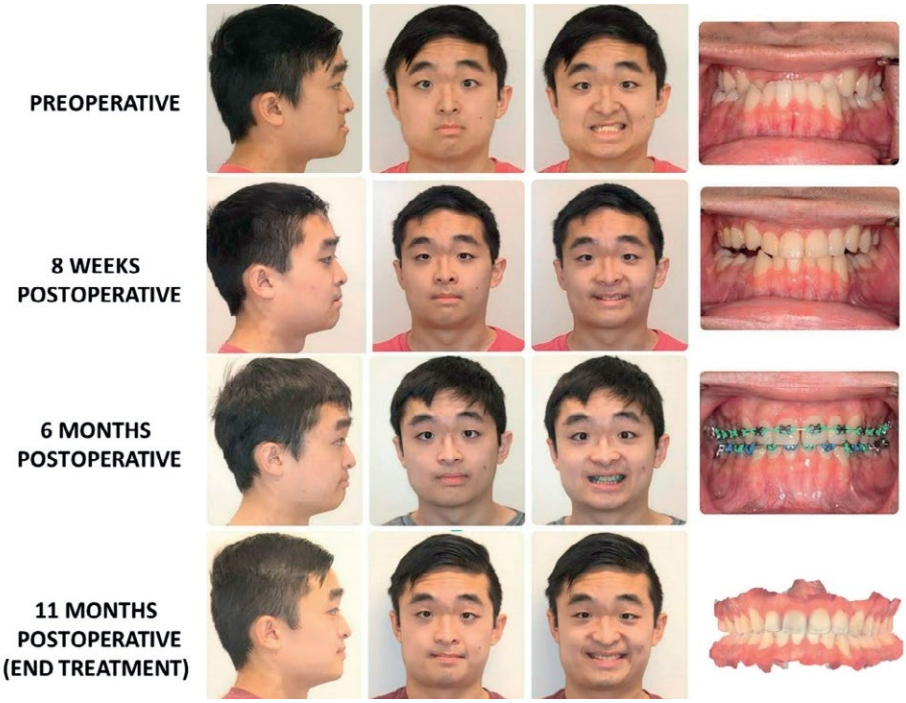

Figure 8: This patient with a moderate class III malocclusion was treated with a surgery-first approach. Two months after Le Fort I osteotomy, fixed appliance orthodontic treatment was initiated. Orthodontic treatment time was 9 months; total treatment time was 11 months. Adapted from reference 14.

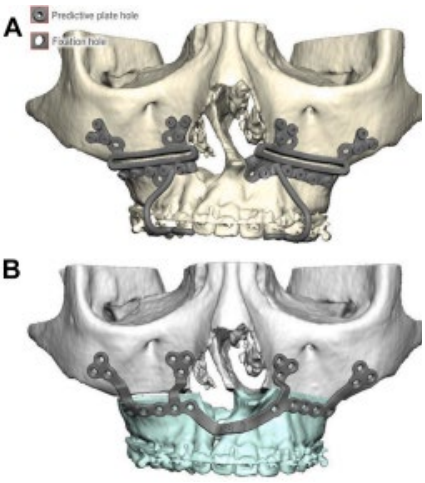

Figure 9: Cutting guides (top) and patient-specific fixation (bottom) for management of midface deficiency in a patient with right unilateral complete cleft lip and palate. Adapted from reference 13.

indication, in cases with high risk for velopharyngeal insufficiency, one can consider mandibular setback surgery to lessen the degree of maxillary sagittal advancement. While there have been historical concerns regarding the effects of mandibular setback procedures on upper airway physiology, the available data suggest that setback procedures < 5 mm in the sagittal plane are unlikely to substantively change upper airway dynamics, even in patients with risk factors for OSA.

In patients undergoing bimaxillary surgery, we have found that surgical sequencing (mandible-first versus maxilla first) does not influence the accuracy of maxillary positioning. [11] For patients with moderate to severe class II skeletal malocclusions undergoing maxillomandibular advancement for OSA (e.g., Robin sequence + cleft palate), mandible-first sequencing may allow more favorable and stable intermediate occlusion. This is also true for significant counterclockwise occlusal plane rotations, as the mandible-first intermediate position will have little to no anterior open bite. Patients with unreliable centric relation also benefit; performing the mandibular osteotomy first allows the surgeon to set the appropriate condylar position intra-operatively and ensures the accuracy of the dental midlines even if the centric record during planning was incorrect due to centric relation-centric occlusion discrepancies. In cases with a thin, atrophic maxilla or multi-segment osteotomies, mandible-first sequencing minimizes stress on the osteotomized maxilla. Maxilla-first sequencing is preferred when there is uncertainty regarding the feasibility of sagittal movement, as in patients with significant scarring from prior surgical interventions. Maxilla-first sequencing is also mandatory when utilizing patient-specific implants (PSI), as any errors in centric registration could prevent accurate placement of the maxillary PSI if the mandible osteotomies and fixation are performed first.

IV. Is there a role for "surgery first" protocols in cleft orthognathic surgery?

In contemporary orthognathic surgery, there has been increasing focus on the use of "surgery first" protocols for management of skeletal malocclusions. These protocols emphasize surgical movement of the jaws with no or only limited pre-surgical orthodontic preparation. Following surgery, orthodontic treatment is pursued, taking advantage of the rapid acceleration phenomenon (RAP) for tooth movement that is present in the first several months after maxillary and mandibular osteotomies. The body of current literature suggests that, in appropriately selected patients, the surgery first approach (SFA) can be beneficial in terms of decreasing orthodontic treatment time and, by extension, total treatment time.

While less extensively studied, there is a role for SFA in patients with cleft-related maxillomandibular discrepancies. Even though active orthodontic treatment is not pursued until after surgery, the critical importance of the surgeon-orthodontist partnership remains the same. Pre-surgical planning requires a detailed assessment of the malocclusion with the goal of creating a stable, non-traumatic post-surgical occlusion that can be exclusively managed orthodontically. In this context, the surgeon and orthodontist should develop the treatment plan together, prior to surgery, to ensure that these imperatives are met.

When considering an SFA for patients with cleft-related maxillomandibular discrepancies, our experience has been that the following situations typically provide the most predictable and stable outcomes:

- Class III malocclusion
- Minimal to no dental crowding
- Successful mixed dentition alveolar bone grafting without further need for augmentation
- No significant transverse maxillary discrepancy
- Little to no mandibular Curve of Spee
- Incisor long axis centered within alveolar housing (i.e., no excessive angulation)
- Immediate post-operative occlusion should be non-traumatic and stable (e.g., tripod contact without heavy occlusal interferences)

When these specific parameters are present, surgical treatment can proceed with favorable results ***(Figure 8)***, both in terms of facial changes and occlusion, with an overall shorter treatment time relative to conventional approaches.

V. What Is the Role for Patient-Specific Fixation in Cleft Orthognathic Surgery?

Custom fixation devices are powerful tools in cleft orthognathic surgery and have been shown to reduce relapse, particularly for sagittal movements greater than 10 mm. [12] However, these devices lack flexibility for intraoperative adjustment. When using patient-specific fixation ***(Figure 9)***, we recommend that maxilla first sequencing be utilized in double jaw surgery cases (i.e., the maxilla can be accurately positioned without relying on the condylar position). The surgeon must also have certainty about the desired vertical position (i.e., maxillary incisal display at rest/smiling), which is based solely on the clinical examination, as well as the feasibility of achieving the planned movement.

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MY WAY:
CLEFT ORTHOGNATHIC SURGERY

ADAM M. GOODREAU
UNITED STATES

HEATHER HENDRICKS
UNITED STATES

PEARLS & PITFALLS[1]

- **Avoid robbing the mandible** – in most cleft cases the maxilla is the 'culprit.' Cephalometric analysis guides the need for a mandibular setback, not the extent of maxillary advancement.
  - Distraction in cases of large advancement.
- **Have your anesthetist intubate the non-cleft nare.** Doing so keeps the tube away from the nasal floor defect.
- For adequate gingiva across the alveolar cleft, use an "alveolar bone graft incision" in segmental cases[2].
- **Patience is mandatory in overcoming cleft scar tissue.**
  - In segmented maxillae, an Ivy loop placed around the molars can be used for posterior traction.
- Trim the caudal septum or shorten the maxillary crest to ameliorate the deviated septum.

For Bilateral, Unrepaired Alveolus Cases...

- Preserving the labial blood supply to the premaxilla is **critical.**
- **Budget plenty of time,** these are tough cases.
- Angled saws (piezoelectric or oscillating) can make the LeFort osteotomy less awkward.
- To avoid avulsion injury, seat the posterior segments in the splint **first,** then coax the premaxilla into the splint.
- A V-Y closure beneath the lip scar can help lengthen the lip modestly.
- For the nasal floor scarred to the alveolus, divide it sharply with scissors to control the resultant defect.

SURGEON'S PERSPECTIVE - Dr. Goodreau

This month's "MY WAY" prompt is timely, falling shortly after the retirement of John Phillips, MD. During John's decades-long tenure at The Hospital for Sick Children ('SickKids') in Toronto, I estimate that no other North American surgeon performed as many cleft-related orthognathic procedures – certainly nobody made these challenging cases look as effortless. Much of what follows traces back to principles and pearls ***(Table 1)*** John taught me.

Dr. Phillips also imparted that you are only as good as your orthodontic partner. For this reason, I split this prompt in half to give pre-surgical orthodontic considerations their due.

Cleft-related procedures differ from their non-cleft counterparts in three major ways:

- The status of the alveolar reconstruction
- The impact on speech (velopharyngeal insufficiency)
- The interplay of larger advancements with the prior scars that limit them

I will focus on the first, because it dictates the osteotomy, the incision planning, and – most importantly – the conversation I have with the patient.

A successfully grafted alveolus is the great simplifier. It restores maxillary continuity, so the case behaves like most other Class III corrections: standard pre-surgical decompensation and a single-piece advancement, with segmentation reserved for setting the occlusion. In bilateral patients, a successful graft with anterior palatal fistula closure converts a daunting case into a routine one.

The ungrafted or incompletely grafted alveolus is the harder road. Here a LeFort osteotomy is either segmented (incomplete grafts) or starts off segmented (ungrafted clefts and complete failures), and that segmentation can be turned to your advantage to narrow the cleft. However, the available bone limits your pre-surgical orthodontics:

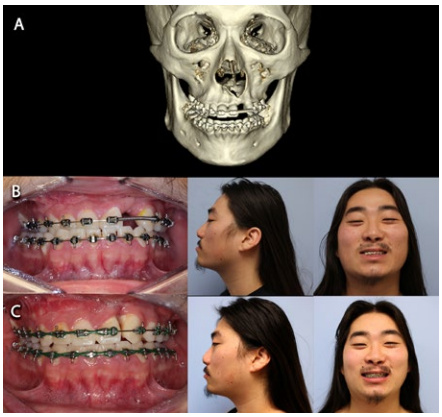

Figure 1: (A) Preoperative three-dimensional CT reconstruction demonstrating an adequately uprighted maxillary left central incisor (#9) and canine (#11) flanking the alveolar cleft. Because both roots sit well within the available bone, a segmental LeFort I can be used to close the alveolar cleft and unite the maxilla and dentition. (B) Preoperative photographs (intraoral, lateral profile, and frontal smile) highlighting the alveolar cleft and the resulting dental gap from the absent left lateral incisor (#10). (C) Six-month postoperative photographs, taken as the patient completes his post-surgical orthodontics, showing closure of the alveolar space by rotation-advancement of the lesser segment.

the central incisor and canine must be uprighted without pulling their roots out of bone — not always possible with extreme lesser-segment crowding, even after premolar extraction. If they cannot be uprighted, the crowns collide before the lesser segment can be rotated into position ***(Figures 1, 2)***. Patient-centered decision-making then guides the path forward: (1) a segmental LeFort to narrow the cleft with simultaneous grafting, which may not take; (2) grafting ahead of orthognathic surgery to try and improve the set-up; or (3) preserving the gap for a bridge or a more advanced reconstruction such as an MFC flap. [3]

Ultimately, this is adolescent medicine. Every cleft case – particularly in the setting of a recalcitrant alveolar cleft – demands an individualized plan.

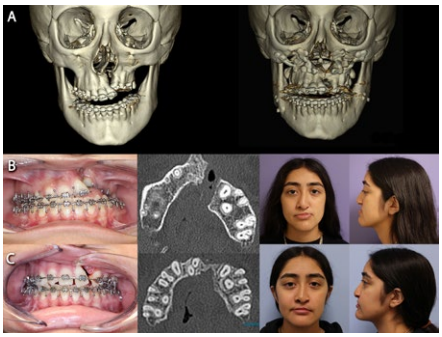

Figure 2: (A) Preoperative (left) and postoperative (right) three-dimensional CT reconstructions highlighting the skeletal deformity in this more severe unilateral cleft. Despite two prior alveolar bone graft surgeries by another surgeon, this patient had no bone take. In contrast to the prior case, the maxillary left central incisor (#9) and canine (#11) could not be completely uprighted; the lesser segment was advanced to narrow the cleft as far as possible before encountering dental interference at the crowns of #9 and #11. The resultant alveolar defect was grafted with iliac crest bone graft. (B) Preoperative images demonstrating the severe malposition of the lesser segment and the persistent alveolar fistula. (C) One-year postoperative images showing the advanced, narrowed segments with closure of the alveolar fistula but unsatisfactory take of the iliac crest bone graft. The patient has chosen to take a break from surgery and is undergoing work-up for vascularized bone transfer [3] for her recalcitrant alveolar bony defect.

Teasing that plan out of an adolescent or young adult is hard, particularly when parents sit in on the consult. At each pre-operative visit I ask the parents to step out, giving the patient space to voice their goals and concerns. This tells me about their surgery fatigue and their appetite for grafting, distraction, and further surgery. Such conversations go a long way toward forging a therapeutic alliance — and setting expectations — in the toughest cleft orthognathic cases.

ORTHODONTIST'S PERSPECTIVE - Dr. Hendricks

The longer I practice, the more I realize that the challenge of cleft orthodontics is not simply moving teeth, timing bone grafts, or achieving ideal facial symmetry. Excellence is not defined solely by technical skill, but by the ability to navigate the liminal spaces — those borderline cases where more than one treatment path can lead to a successful outcome. Patients and families come seeking improved function, appearance, confidence, and relief from the burden of extended treatment. Our goals are aligned, but having sound clinical judgment requires me to balance their growth, biological limits, and long-term treatment stability. In these moments, my role extends beyond treatment planning to clearly defining the pathway ahead, so that families can move forward with confidence.

I've found that the most severe skeletal discrepancies are often the most straightforward decisions, because the path is clear. The real challenge lies in borderline cases where more than one reasonable option exists. I no longer think in terms of "surgery or no surgery," but lead with the question, "what best serves this patient?" The answer lies in balancing skeletal/dental discrepancy, prior surgical history, bone graft status, and the real-world burden each option places on the family — emotionally, physically, and practically. Some patients do well with orthodontics alone; others derive clear psychosocial and functional benefit from surgery.

I was reminded of this balancing act during an exam with an adolescent patient who had completed five years of orthodontic care elsewhere. From a skeletal standpoint, future orthognathic surgery could improve facial balance, but

dental compensation had already produced a functional occlusion, with de-bonding anticipated within the year. She and her family were uncertain about surgery, but clear in their desire for a break from braces. While conventional planning would have involved decompensation, this carried meaningful risk to already compromised incisor roots. Therefore, we agreed for her to complete treatment without additional compensation and proceed to de-bonding; preserving current function while maintaining the option of future surgical intervention.

While the previous case emphasized preserving future pathways, the next illustrates a different boundary: when biology and functional needs require a less conventional treatment approach.

In this instance, a young adult presented to clinic after nearly four years of orthodontic treatment aimed at dental compensation. This caused extensive root resorption of the maxillary incisors, which limited any further orthodontic movement. Rather than a traditional one-piece maxillary advancement, a three-piece maxillary osteotomy was used to correct incisor inclination surgically, minimizing further orthodontic risk while protecting the anterior dentition and improving surgical flexibility.

The significance of this decision lies not in the technique itself, but in the reasoning behind it. Treatment was dictated not by what was technically feasible, but by what biology would safely permit.

What I value most is not the range of treatment options available, but the judgment required to choose the most appropriate one for the patient in front of me. Technical skill defines what is possible, but clinical judgment determines what is appropriate. While evidence and data are essential to my decision-making, they do not replace interpretation. In the end, the best outcomes occur when clinical expertise and patient goals are brought into alignment, and it is in that alignment that good treatment becomes exceptional care.

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NEW TECHNOLOGY

A SINGLE-STAGE STRATEGY: COMBINED ANTERIOR MAXILLARY AND LE FORT I DISTRACTION OSTEOGENESIS FOR CLEFT-RELATED SEVERE MAXILLARY HYPOPLASIA

MING CAI
CHINA

MIN ZHU
CHINA

HUILIN WANG
CHINA

Anterior maxillary distraction osteogenesis (AMDO) and Le Fort I distraction osteogenesis (LFIDO) are established techniques for treating severe maxillary hypoplasia after primary cleft lip and palate (CLP) repair. However, each technique has limitations. AMDO can increase the anteroposterior length of the dental arch but provides limited anterior advancement and is mainly suitable for patients with localized anterior crossbite accompanied by crowding. In contrast, LFIDO allows significant advancement of the maxilla but cannot simultaneously create alveolar bone space. Large advancements may increase the risk of velopharyngeal insufficiency and external distractors may cause discomfort.

To address these limitations, we developed a combined distraction strategy integrating AMDO with LFIDO. With digital surgical planning, this approach aims to achieve substantial maxillary advancement while relieving the severe crowding in the upper dental arch and minimizing velopharyngeal dysfunction. The technique enables a comprehensive correction of complex cleft-related maxillary deformities in one treatment stage.

PREOPERATIVE PLANNING

Preoperative planning was performed using maxillofacial computed tomography (CT) data. Virtual surgical planning determined the magnitude and direction of maxillary segment repositioning. Based on digital simulation, osteotomy lines for AMDO and LFIDO were designed and optimal distractor positions were defined. ***(Figure 1)*** Particular

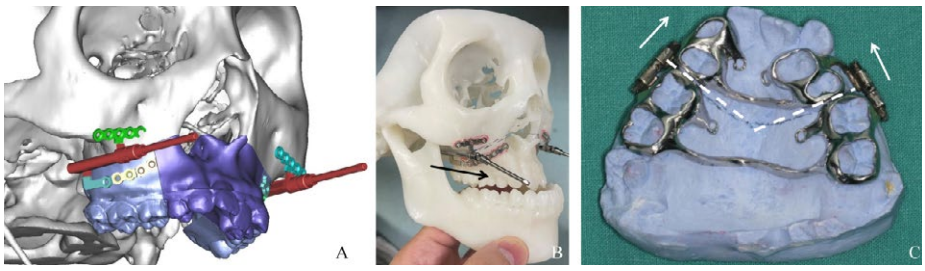

Figure 1 Combined distraction design – (A) Design of the LFIDO distractor and maxillary osteotomy lines; (B) LFIDO distractor; (C) AMDO distractor; Arrow: DO direction; Dashed line: AMDO osteotomy line.

Figure 2 Case outcomes - Facial profile, Overjet and cephalometric radiograph before (A, C, E) and after (B, D, F) distraction.

attention was paid to maintaining a safe distance from tooth roots and the greater palatine neurovascular bundle. The traction arms of the internal distractor were designed to be bilaterally parallel to ensure unobstructed movement of the anterior maxillary segment. Three-dimensional (3D)-printed guides were fabricated to assist AMDO osteotomy and accurate placement of the Le Fort I distractor that was pre-bent according to the digital design.

SURGICAL PROCEDURE

All procedures were performed intraorally. A vestibular incision was made along the maxillary mucobuccal fold, followed by subperiosteal dissection exposing the anterior wall, lateral wall, and nasal floor of the maxilla.

The screw-hole positioning guide for the Le Fort I distractor was fixed and drilling was performed. A Le Fort I osteotomy was then carried out along the planned osteotomy line while preserving the pterygomaxillary junction. Subsequently, the AMDO osteotomy guides were positioned and secured. With the assistance of the osteotomy guides, piezosurgery was used to create bilateral vertical cortical osteotomies without complete bone transection. Bilateral pterygomaxillary junctions were separated to fully mobilize the maxilla, followed by osteotomy of the anterior nasal spine and nasal septum. A reciprocating saw and osteotomes were used to separate the bone between the bilateral vertical osteotomy lines, allowing mobilization of the anterior maxillary segment. Pre-bent internal Le Fort I distractors were installed using the pre-drilled holes, with at least four titanium screws on each arm. AMDO distractors were then bonded to the dentition. Slight trial activation for both LFIDO and AMDO was conducted to confirm unobstructed bone segment movement. After hemostasis, the surgical site was irrigated and closed in layers.

DISTRACTION PROTOCOL

Distraction was initiated after a latency period of 5–7 days. AMDO was activated twice daily at 0.25 mm per activation. LFIDO was initially activated once daily with 0.17 mm advancement per session until AMDO reached the target position, after which it was increased to twice daily at the same rate. Mouth opening and wound healing were closely monitored throughout the process, and distraction parameters were adjusted according to bone segment movement. After distraction, the distractors were retained for 3–6 months to allow consolidation and stabilization of the newly formed bone.

CASE PRESENTATION

A 26-year-old female with a history of cleft lip repair, cleft palate repair, and alveolar bone grafting presented with severe skeletal Class III malocclusion caused by secondary maxillary hypoplasia. The combined distraction technique was performed.

After a 45-day distraction period, facial aesthetics improved. AMDO produced alveolar bone space of 6.8 mm on the left side and 6.9 mm on the right side, while LFIDO achieved 10.7 mm of maxillary advancement. Cephalometric analysis showed that the SNA and ANB angles increased from 71.3° to 80.1° and -6.8° to 3.1°, respectively. The overjet improved from -6.8 mm to 2.1 mm. The A-point advanced 7.38 mm, and the upper incisor point advanced 11.7 mm. The incisor display at rest changed from -3 mm to 1.8 mm. These outcomes closely matched the preoperative plan. ***(Figure 2)***

After 11 months of consolidation, the remaining malocclusion was corrected with orthodontic treatment alone. At the 24-month follow-up, a sagittal relapse of 2.3 mm at the A-point was observed, and the overjet decreased to 0.8 mm, which remained clinically acceptable. CT imaging demonstrated satisfactory bone healing without nonunion or root injury.

DISCUSSION

The combined distraction strategy enables substantial maxillary advancement while maintaining stability of the bone segments for secondary maxillary hypoplasia in patients with CLP. Furthermore, this approach minimizes the need for compromised mandibular setback, a common adjunct in

traditional orthognathic surgery. This is particularly beneficial for patients without mandibular prognathism, as it increases the magnitude of maxillary advancement while reducing surgical trauma. Importantly, this technique enables simultaneous gain of alveolar bone space to alleviate dental crowding while reducing the risk of velopharyngeal insufficiency, an advantage over conventional Le Fort I distraction osteogenesis alone.

Digital surgical planning plays a critical role in accurate osteotomy and precise placement of internal distractors. During distraction, the two distraction systems function independently. These advantages may improve surgical accuracy, reduce complications, and provide a practical solution for severe cleft-related maxillary deformities.

CONCLUSION

Combined anterior maxillary and Le Fort I distraction osteogenesis represent a safe and effective strategy for secondary maxillary hypoplasia in patients with CLP. This technique enables the simultaneous achievement of multiple clinical outcomes, including maxillary advancement, space creation for alignment of crowded teeth, and improvement of facial aesthetics within a single treatment stage.

NEW TECHNOLOGY

ONE OPERATIONAL CHANGE: HOW SMART AUTOMATION CAN ADD $500K+ PER OPERATING ROOM ANNUALLY

ARTUR MANASYAN
UNITED STATES

MARK M. URATA
UNITED STATES

JEFFREY A. HAMMOUDEH
UNITED STATES

The financial and operational vulnerabilities of the United States health care system have become increasingly evident over the past decade. Hospitals frequently operate within narrow and unstable margins, with recent national estimates placing typical operating margins between –3.8% and 2.3%. Between 2019 and 2020 alone, margins declined by an average of 5.3%, largely due to reduced patient revenue and rising expenditures. These pressures are particularly severe among rural and safety-net institutions, many of which remain at risk of closure despite temporary federal support. Over the past 15 years, more than 150 safety-net hospitals have closed, creating substantial access gaps for vulnerable populations. [1-7]

Artificial intelligence (AI) has emerged as a promising approach to address these operational inefficiencies. Early applications have demonstrated that AI-based systems can process and classify clinical and administrative information with accuracy comparable to, and in some cases exceeding, human performance. Natural language processing platforms already automate large portions of medical coding with accuracy rates exceeding 90%, significantly reducing the administrative burden associated with billing and documentation. Similarly, AI-driven scheduling architectures have transformed traditionally manual processes into automated clinical access pipelines. By integrating electronic health record triggers, resource availability, and real-time patient communication, these systems create closed-loop workflows that reduce appointment abandonment, optimize clinical asset utilization, and improve patient access to care. [8-12]

Perioperative care represents a particularly high-value opportunity for AI integration due to the complexity and inefficiency of current surgical workflows. Operating room environments involve numerous handoffs between clinical, administrative, and supply chain teams. Device and supply information is frequently transcribed manually across multiple documentation systems, increasing the likelihood of errors and incomplete records. Traditional electronic medical record and enterprise resource planning systems often rely on retrospective reconciliation rather than real-time data

capture, which can delay billing and reimbursement processes by weeks or months. Implant documentation is especially prone to inaccuracies, with reported error rates ranging from 30% to 60% in some surgical environments. [13,14]

AI-enabled device recognition and automated documentation systems offer a potential solution to these challenges. Using computer vision technology combined with standardized Unique Device Identifier (UDI) integration, these platforms can automatically identify and catalog implants, biologics, and surgical supplies at the point of use.[15] This capability is particularly relevant in implant-intensive specialties such as craniofacial surgery, orthopedics, neurosurgery, and plastic surgery, where precise documentation of implants and biologic materials is essential for both patient safety and regulatory compliance. Automated recognition enables intraoperative device usage to be captured in real time and integrated directly into the electronic medical record, creating a closed-loop data environment that connects surgical planning, documentation, inventory management, and billing workflows.

In addition to improving documentation accuracy, automated capture significantly reduces the administrative workload placed on perioperative staff. Manual documentation processes that previously required multiple entries by nurses and surgical technologists can be replaced with automated workflows, allowing staff to redirect effort toward patient care and safety-related tasks. Improved data capture also enhances supply chain transparency and cost accountability. Accurate identification of implants and consumables enables dynamic optimization of surgical preference cards, improved inventory traceability, and reduced opening of unused supplies. Even minor documentation errors in operating rooms can lead to substantial financial losses due to missed charge capture or inaccurate supply utilization records.

Operational evaluations of AI-enabled documentation platforms have demonstrated measurable improvements in workflow efficiency and financial performance. Documentation time per case decreased from approximately 29 minutes with manual entry to roughly 3 minutes with automated capture, representing a reduction of nearly 90%. Documentation accuracy improved to approximately 99%, significantly reducing the need for manual correction. Financial outcomes also improved. One outpatient surgical organization observed an increase in annual collections from $4.54 million to $5.85 million following implementation, representing a potential increase of approximately $1.3 million. Similarly, a neurosurgical and orthopedic facility reported margin recapture of approximately $500 to $1,000 per surgical case and $50 to $100 per minor procedure with the use of AI, resulting in estimated annual improvements exceeding $1 million. [16]

Beyond operational benefits, automated device documentation systems play an important role

in improving implant traceability and regulatory compliance. Unique Device Identifiers provide a standardized framework linking specific implantable devices to individual patients, facilitating recall management, post-market surveillance, and outcomes research. Regulatory interest in device traceability has increased in recent years, with policymakers advocating for broader integration of device identifiers into national claims data to improve monitoring of device safety and performance.

Despite these advantages, barriers to adoption remain. Integration with existing hospital information technology infrastructure can be challenging, particularly for institutions operating legacy electronic medical record systems that lack real-time interoperability. AI models also require periodic retraining to accommodate evolving implant designs and packaging variations. Cybersecurity and data privacy considerations must be addressed through robust compliance frameworks and secure system architecture.

Nevertheless, the continued expansion of AI within surgical practice appears inevitable. Similar to prior technological inflection points in medicine, intelligent automation has the potential to transform both clinical workflows and operational efficiency. Although this analysis focuses on the United States healthcare system, the underlying challenges of operating room efficiency, device traceability, and financial sustainability are shared by health systems worldwide. As a result, the thoughtful and evidence-based implementation of AI platforms may have broad international relevance and could play an important role in improving financial sustainability, strengthening device traceability, and enhancing patient care across surgical specialties globally.

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PSYCHOSOCIAL ASPECTS

COMMUNITY ART AND CRANIOFACIAL DIFFERENCE: A VISIBILITY INITIATIVE IN EGYPT

KARAM ALLAM
EGYPT

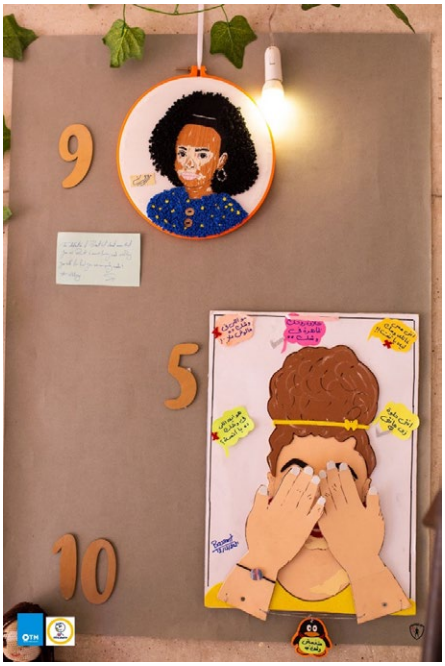

Figure 1 - Student artwork created during the "Matkhabeesh Weshak" initiative exploring perceptions of facial difference and identity.

Children with craniofacial differences often carry a social burden long before they understand the medical side of their condition. Families notice it early: staring, avoidance, uncomfortable questions, and the instinct to protect children from public attention. Surgical care can address function and appearance, but many of the social difficulties develop elsewhere — in schools, playgrounds, classrooms, and ordinary daily interactions.

In Egypt, these experiences are familiar to many families of children with cleft lip and palate, facial vascular malformations, burn injuries, and other craniofacial conditions. Over time, our team began discussing whether visibility itself might matter more than we often recognize. Many children undergo years of treatment while remaining socially invisible outside medical settings.

We wondered whether creating more open and human conversation around facial difference might help reduce some of the discomfort and misunderstanding surrounding these conditions.
That discussion gradually became "Matkhabeesh Weshak" ("Don't Hide Your Face"), a community initiative built around portrait art, school exhibitions, and family-centered events intended to encourage conversation about craniofacial difference in Egypt. The project was never designed as a formal institutional campaign. It grew gradually through collaboration among families, volunteers, university art students, and members of the craniofacial community who believed these children deserved to be represented openly and respectfully within their communities.

The exhibitions centered on portraits of children with craniofacial differences displayed in schools and community spaces. Rather than presenting children as medical subjects, the portraits focused on personality, daily life, family relationships, and ordinary childhood experiences. Students attending the exhibitions were encouraged to ask questions openly and discuss how facial differences are perceived socially. The discussions were intentionally informal. We wanted children to feel comfortable speaking honestly rather than feeling they were participating in a lecture or awareness session.

One of the most striking parts of the experience was how quickly children became comfortable once the initial hesitation faded. Many students who were quiet at the beginning of sessions gradually became thoughtful and emotionally engaged during

discussion. Conversations moved away from appearance alone and toward friendships, bullying, confidence, school experiences, and inclusion.

Several students later said they had never previously considered what ordinary school interactions might feel like for a child with a visible facial difference. Others reflected on how quickly people form judgments based on appearance before learning anything about the individual. In many sessions, children eventually stopped focusing on the facial condition itself and instead spoke about personality, hobbies, friendships, and similarities between themselves and the children in the portraits.

For families, the events created a different kind of experience. Many parents described relief at seeing their children represented publicly in a supportive environment rather than feeling hidden or socially isolated. Some families participated in community activities for the first time after years of avoiding public attention related to appearance-based anxiety. Several parents also spoke about how exhausting it can become to constantly anticipate staring or uncomfortable social reactions in ordinary public settings.

The involvement of university art students became another important part of the project. Portrait sessions often turned into long conversations rather than formal drawing exercises. Many students later described becoming more aware of how strongly facial appearance shapes social interaction and how rarely these conversations happen openly. Some also reflected on how quickly their own attention shifted away from appearance once they spent time speaking with the children and families directly.

Figure 3 - Exhibition artwork addressing social reactions, visibility, and public perception surrounding craniofacial differences.

Importantly, the project was never intended to suggest that art alone can eliminate stigma surrounding visible difference. Social attitudes develop over years through family culture, schools, media, and broader social behavior. A single exhibition cannot fully change those forces. Still, visibility matters. In many communities, children with craniofacial differences are discussed medically while remaining socially invisible in everyday life.

For our team, the initiative reinforced an important lesson in craniofacial care. Reconstructive surgery addresses anatomy, function, and appearance, but social belonging develops largely outside the hospital. The experience of facial difference is shaped not only in clinics and operating rooms, but also in classrooms, peer groups, and public spaces.

Craniofacial surgery has always depended on multidisciplinary care. We usually think of that collaboration in medical terms: surgeons, speech therapists, orthodontists, psychologists, nurses, and social workers. Community engagement may also deserve a place within that broader conversation, particularly

Figure 2 - Community art exhibition featuring portraits and mixed-media artwork created in collaboration with children, families, and university art students.

in settings where visible facial difference remains poorly understood socially.

The initiative remains small and informal, but it has created opportunities for children and families to be seen differently within their communities. In many of the exhibitions, once conversation began openly, facial difference gradually became less central to the interaction itself. Attention shifted away from the condition and back toward the child.

NEUROSURGERY CORNER

JAY JAYAMOHAN
Neurosurgery Editor
UNITED KINGDOM

Training the next generation of craniofacial neurosurgeons is high in my thoughts at the moment because I have, for various reasons, now entered into a secondary supportive role with a more junior consultant when we do our cases. This is an interesting situation to be in. It does allow me to use my experience and, sadly, often thinking about complications of procedures or events when I think, "I wish I hadn't done that," to help avoid repeating such. For tricky syndromic cases, nothing beats having seen loads of them before.

In many countries, however, neurosurgeons and indeed even paediatric neurosurgeons, will often have a very limited exposure to craniofacial surgery. This has several implications. The first is that there is a very steep learning curve within the last year or maybe two of training/fellowship for paediatric neurosurgeons to become exposed to craniofacial surgery. They will be balancing the requirement to learn all of the conditions and non-neurosurgical aspects of syndromes and presentations, while also remembering that there will be a large portion of the day-to-day job that is non-craniofacial.

It behoves us to therefore spend time advertising our subspecialty more to the wider neurosurgical population and making people consider this as a worthwhile subspecialty. I came to Oxford specifically because I wanted to do craniofacial surgery as part of my practice, but this appears not to be a widespread feeling amongst more junior neurosurgical consultants. While subspecialties such as oncology or spine often will take the limelight, there is a huge amount to gain from craniofacial experience that can be used in non-craniofacial practice. For those of us in the UK, we will often cover all subspecialties as well as craniofacial surgery when working in one of the designated craniofacial centres.

However, in talking to colleagues around the world, I find that this is not always the case, and where there is a requirement to have a majority of work time spent in a subspecialty, it's not often craniofacial practice. This has in part been because of the number of cases that are required per year to allow someone to call themselves a craniofacial neurosurgeon – and the hours of work needed per case (much lower rations can be obtained in other specialities). The increase in endoscopic and minimally invasive treatment methods puts neurosurgeons squarely in the driving seat for many operations, not merely the 'secondary' cut along the dotted line person. We need to step up and promote this as a real career option for budding paediatric neurosurgeons.

The use of virtual reality and image guidance allows practice and planning to be done and models built for at least a pseudo realistic attempt at operating. This can be expensive, but I know there are several companies who are involved in this work, many of whom present and exhibit at our international meetings. It'll get cheaper over time, but the really exciting hope for me is being able to collaborate with colleagues in other countries on difficult scenarios, or assist virtually if a colleague with limited resources is doing a case, but it's not realistic to actually fly over to be there for one case every now and then. With virtual planning and practice, we may get the next best thing.

I think the next few years will see an explosion in computer driven operative practice techniques and I look forward to seeing how this will impact on planning and training for neurosurgeons and for craniofacial plastics and maxillofacial surgeons in the future.

In the meantime, at our next Congress, we are hoping to have a hands-on session to give exposure to non-neurosurgeons with a drill and to practise without overt risks to the patient. Here's hoping that works out.

ORTHODONTIC CORNER

THE UNIQUE ROLE OF CRANIOFACIAL ORTHODONTISTS IN JAPAN: VISIBILITY, EDUCATION, PROFESSIONAL SUCCESSION, AND FUTURE PERSPECTIVES

YUKI SATO YAMAMOTO
JAPAN

INTRODUCTION

Patients with craniofacial conditions require comprehensive, long-term care extending from infancy to adulthood. Within multidisciplinary craniofacial teams, craniofacial orthodontists play an essential role; however, their contribution is often less visible than that of other specialists.

While structured fellowship programs have been established in some countries, expertise in craniofacial orthodontics is frequently developed through clinical experience, mentorship, and long-term participation in multidisciplinary care. Japan is no exception. This article reviews the unique role of craniofacial orthodontists in Japan and discusses the importance of visibility, succession of expertise, and the future development of the specialty.

THE UNIQUE ROLE OF CRANIOFACIAL ORTHODONTISTS

The role of craniofacial orthodontists extends far beyond conventional orthodontic treatment.

Perhaps the most distinctive feature of the specialty is its longitudinal relationship with patients. In some cases, the same orthodontist remains involved in patient care for more than two decades, accompanying patients and families from infancy through adulthood. [1]

Craniofacial orthodontists are responsible for growth assessment, collaboration with surgical teams, and long-term management of functional and esthetic outcomes. As core members of multidisciplinary craniofacial teams, they contribute not only to treatment delivery but also to short- and long-term treatment planning and clinical decision-making. [1–5]

Close communication with surgeons is essential throughout the treatment process. Consequently, craniofacial orthodontists function not merely as providers of orthodontic treatment, but as key contributors to comprehensive patient management. [1–4]

In this regard, craniofacial orthodontists are not simply specialists in tooth movement; they are professionals who provide comprehensive longitudinal care for patients and families over many years. [1–5]

CHALLENGES AND THE JAPANESE MODEL OF CRANIOFACIAL CARE

Although the role of craniofacial orthodontists is increasingly recognized worldwide, the way specialists are trained and integrated into healthcare systems varies considerably among countries.

First, Japan does not have a nationally standardized fellowship or training program dedicated to craniofacial orthodontics. [6] Expertise has therefore traditionally been developed through clinical experience, mentorship, and participation in multidisciplinary teams rather than through formal educational pathways.

Second, Japanese craniofacial care has evolved within a healthcare

system organized around independent academic and clinical departments. Plastic surgery, oral and maxillofacial surgery, orthodontics, and pediatric dentistry all contribute to patient care, resulting in a structure that differs from the centralized Craniofacial Centers commonly seen in North America. [6]

Third, long-term patient management has led to the development of a distinctive model of care. Patients with craniofacial conditions often require treatment and follow-up from infancy through adulthood. However, maintaining continuity of care within a single university hospital can be difficult because of faculty turnover, training rotations, and institutional limitations.

Over time, university hospitals, affiliated institutions, community facilities, and private orthodontic practices collectively participate in patient management over many years. In many cases, surgery is performed at a university hospital, while long-term orthodontic treatment and retention are provided in community settings.

In this article, this structure is referred to as a **network-based craniofacial care model**. Rather than concentrating all care within a single institution, this model distributes responsibilities across a network of providers while maintaining continuity of care. Although it differs from the North American Craniofacial Center model, it represents an important and distinctive Japanese approach to supporting patients throughout their developmental journey.

WHY RECOGNITION OF CRANIOFACIAL ORTHODONTICS IN JAPAN MATTERS

The expertise of craniofacial orthodontists is developed through long-term patient management, sustained participation in multidisciplinary teams, and close collaboration with surgeons. Yet their contribution is not always fully recognized.

In craniofacial care, the role of surgeons is generally easier to identify because surgery represents a clearly visible intervention. In contrast, the contribution of orthodontists is distributed across many years of treatment, making their role less visible despite its importance.

When professional roles are insufficiently recognized, young clinicians may struggle to envision a future within the specialty. Professional identity and a sense of belonging are strengthened when individuals recognize that their work is valued by patients, colleagues, and society.

Japan currently faces an unprecedented aging population. Craniofacial care is no exception. Many experienced craniofacial orthodontists who have supported the field for decades are approaching retirement, while opportunities for structured training in craniofacial orthodontics remain limited. Consequently, expertise continues to depend heavily on individual experience and mentorship.

In my own experience, I have frequently been approached by younger orthodontists seeking guidance on how to enter the field or obtain relevant training. These conversations have reinforced my belief that a clear pathway for education and professional development is needed.

Visibility is therefore not simply about certification or professional recognition. Rather, it is about creating an educational foundation through which expertise can be preserved, shared, and passed on to future generations.

FUTURE DIRECTIONS

Against this background, discussions have recently begun in Japan on future educational pathways, professional development, international collaboration, and appropriate mechanisms for preserving and transferring expertise in craniofacial orthodontics. The Japanese Society of Cranio-Maxillofacial Surgery has already established a specialist certification system for cranio-maxillofacial surgeons. [9] In craniofacial orthodontics, the development of educational pathways and mechanisms for succession remains an important challenge.

Educational resources should not remain confined to individual institutions or mentors. Case registries, educational programs, and structured mentorship systems are needed to facilitate the systematic sharing of knowledge and expertise. Future educational frameworks should also take advantage of Japan's network-based craniofacial care model by allowing trainees to learn across diverse clinical environments.

Such a framework could combine mentorship, case

registries, multidisciplinary clinical experiences, educational workshops, and international learning opportunities. Because Japan's craniofacial care system is distributed across university hospitals, affiliated institutions, and community-based practices, training may be achieved through a network-based model rather than a traditional center-based fellowship. Future educational systems may also incorporate mechanisms for evaluating knowledge, clinical experience, and professional competency, thereby providing a pathway for recognizing future craniofacial orthodontists.

International collaboration will also be essential. Organizations such as the International Society of Craniofacial Surgery (ISCFS) provide an important platform for sharing knowledge, research, and educational resources. [8] Through collaboration with the international craniofacial community, Japan can continue to develop its own educational and clinical models while contributing to the advancement of the specialty worldwide.

The expertise of craniofacial orthodontists should not depend solely on individual experience or chance encounters with mentors. It represents a professional asset that must be preserved, shared, and passed on to future generations through structured educational pathways.

To achieve this, mechanisms for recognizing, evaluating, and transmitting expertise must be developed. Equally important is creating an environment in which future craniofacial orthodontists can develop pride in their specialty, a strong professional identity, and a sense of belonging within the craniofacial community.

The future of the specialty depends not only on the transfer of knowledge and skills, but also on the successful transmission of the values, commitment, and professional pride that define the field.

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YOUNG SURGEONS' EXPERIENCE

ELEVATING TRAINING THROUGH GLOBAL COMMUNITY: A FELLOW'S JOURNEY WITH ISCFS

SHELBY NATHAN
UNITED STATES

As I approach the conclusion of my training, I find myself reflecting on the experiences and relationships that have shaped my path. My interest in craniofacial surgery began long before medical school, sparked by a powerful early encounter with children affected by cleft lip and palate. That moment solidified my commitment to the field and has continued to guide my professional journey. Throughout residency and fellowship, I have been fortunate to learn from exceptional mentors who have helped me navigate the technical and intellectual challenges of training. Among the many influences on my development, the International Society of Craniofacial Surgery (ISCFS) has played a particularly meaningful role - offering mentorship, academic collaboration, and a strong sense of global community.

Since becoming a member in March 2024, I have had the opportunity to engage with ISCFS in ways that have broadened both my academic perspective and professional network. While working on a global survey examining surgeon confidence in pterygomaxillary osteotomy, I reached out to the Society for support with distribution. In response, I was quickly connected to an international network of thousands of surgeons and trainees. Contributions from seven global regions enriched the study and provided valuable insight into the diverse approaches, challenges, and innovations in maxillary reconstruction. Beyond the data itself, the process highlighted the collaborative spirit of the craniofacial community. The strong response to the survey led not only to meaningful academic contributions, but also to ongoing dialogue, sparking connections at national and international conferences, as well as in-person introductions. This experience underscored the society's unique ability to foster both scholarship and collegiality on a global scale.

Equally impactful have been my experiences at the ISCFS biennial Congresses, first in Seattle and more recently in Shanghai. These meetings offered far more than formal presentations; they created an environment for thoughtful discussion, mentorship, and connection. Through panels, case discussions, and informal conversations, I gained perspectives that cannot be found in textbooks. Perhaps most importantly, I had the opportunity to engage with mentors who offered guidance not only on surgical technique and research, but also on career decisions and personal values. These relationships continue to remind me that the strength of our field lies as much in its people as in its procedures. Looking ahead, I am eager to attend the upcoming ISCFS Congress in Rotterdam. I look forward to deepening my understanding of core topics, while reconnecting with colleagues and forming new professional relationships. These meetings uniquely blend academic growth with cultural exchange, reinforcing the global nature of our specialty.

As I complete my craniofacial fellowship and prepare to begin my career in academic practice, I am especially grateful for the role ISCFS has played in my development. For me, the Society has served as both a foundation and a launching point, providing the tools, mentorship, and inspiration that will continue to shape my career. I feel fortunate to be part of a community that not only advances surgical excellence, but also prioritizes mentorship, curiosity, and collaboration across borders. The relationships I have built through ISCFS will remain a constant source of support and inspiration as I move forward in my career.

HUMANITARIAN WORK AND MISSIONS

PARADIGM CHANGE IN GLOBAL CLEFT PROGRAMS: MY TANZANIA EXPERIENCE

OMRI EMODI
ISRAEL

Over the last 13 years, I have participated in cleft missions with Operation Smile in multiple countries, primarily in Africa, including Madagascar, Ghana, and Tanzania. During this period, I have witnessed a profound change in the philosophy, structure, and goals of overseas cleft programs. What was once primarily a model of short-term surgical access has gradually evolved into an educational and sustainable healthcare model. For me, this transformation has changed not only the way missions are organized, but also the way I understand my role as a surgeon, educator, and guest within another healthcare system.

In the earlier years, missions were largely measured by volume. The objective was to help as many patients as possible within a limited period of time. Programs typically began with intensive screening days followed by several long surgical days, often involving multiple operating tables working simultaneously. Every additional operation represented another patient receiving life-changing treatment, and the atmosphere was one of urgency, commitment, and productivity.

That model had tremendous humanitarian value, and I still carry vivid memories of families traveling long distances, parents waiting with hope and anxiety, and children finally receiving treatment for deformities that had affected them for years. However, with experience, it became clear that numbers alone cannot define success. A mission that changes many lives during one week is important, but a mission that strengthens local teams may continue changing lives for many years after the visiting team has departed.

Over time, international safety standards, quality regulations, and expectations for perioperative care evolved significantly. Operation Smile introduced stricter global health protocols emphasizing patient safety, quality assurance, standardized care, and responsible follow-up. The modern approach shifted from short-term, high-volume surgery toward education, supervision, and local capacity building. The visiting surgeon is no longer only a provider of care, but also a mentor responsible for teaching, evaluating, and supporting the development of local expertise.

Our recent program in Mtwara, Tanzania, clearly demonstrated this modern educational model. Importantly, this was only the third Operation Smile mission conducted in Tanzania, highlighting that the program remains in a relatively early developmental phase. The educational framework is still evolving, and each mission contributes valuable lessons that help refine a sustainable model for future programs within the country and across the region.

The mission included three operating tables, four international educator surgeons, three local trainee surgeons specializing in ENT, plastic surgery, and general surgery, and six surgeon

observers from across Africa. All international surgeons served as approved educators after completing dedicated Operation Smile educator training and receiving approval from Operation Smile headquarters based on their previous performance and experience in earlier programs.

The program began with a dedicated educational day focused on surgical techniques, case selection, expected outcomes, and stepwise credentialing goals for the trainees. This day was important not only for transferring knowledge, but also for creating a common educational language between the international faculty and the local surgeons.

One aspect I found particularly valuable was the open discussion between educators and trainees regarding cleft lip and palate repair techniques. As educators, we often come from different training backgrounds and may perform the same procedure with subtle technical variations. Taking time to discuss these differences before the mission helped prevent unnecessary confusion and created a more structured learning environment. Rather than focusing on a single "correct" technique, we emphasized the principles underlying each approach and explained how specific clinical situations may influence surgical decision-making. This encouraged critical thinking and helped trainees understand not only how a procedure is performed, but also why certain technical choices are made. In my experience, this approach fosters deeper learning and contributes to the development of independent, thoughtful surgeons rather than simple imitation of a mentor's technique.

Figure 1: With Dr. Victoria, ENT surgeon, Mtwara Hospital

Figure 2: Mother and son after cleft lip surgery

Figure 3: Patient before and after cleft lip surgery

Over 4.5 surgical days, 44 procedures were performed. The mission maintained a strict protocol of only three to four surgeries per table per day. This

Figure 4: Mtwara Hospital, two surgical teams working simultaneously in one operating room

Figure 5: Part of the global OR team from Tanzania, Mexico, Ghana, Egypt, Australia, Sweden, United Kingdom, United States, Malawi, South Africa, Norway, Israel, Italy, Ethiopia, Kenya, and Rwanda

represented a major departure from earlier mission models, where schedules were often significantly more crowded. Limiting the number of cases created time for careful planning, safe anesthesia, detailed intraoperative teaching, and structured feedback while allowing educators to remain fully engaged in each procedure.

The trainee surgeons were active participants throughout the mission. They were evaluated during every operation, including

assessment of the percentage of the procedure they performed independently and the specific steps they completed safely. At the conclusion of each case, educators conducted structured feedback discussions. These conversations were often as valuable as the operations themselves, helping trainees understand not only what was done, but also why certain decisions were made and how similar cases should be approached in the future.

On a personal level, the Tanzania mission reminded me that surgical education is built on trust. Educators must know when to demonstrate, when to guide, when to step back, and when to intervene for safety. The trainee must feel respected, supported, and challenged to grow. When this balance is achieved, the operating room becomes more than a place where surgery is performed; it becomes a place where future independence is built.

I also realized how much my own definition of success has evolved. Earlier in my career, I often measured a mission by the number of operations completed. In Mtwara, I found myself measuring success differently: by the quality of teaching, the confidence gained by a local surgeon, the safety of each patient, and the possibility that a trainee would later perform a similar operation independently. This, to me, is a more mature and meaningful measure of impact.

My Tanzania experience demonstrated that global cleft missions are no longer measured solely by the number of surgeries performed. The true goal is to create sustainable local expertise capable of independently delivering safe, high-quality cleft care. Surgical volume remains important because the need is real, but it must be balanced with safety, education, and long-term impact. The most successful mission is not necessarily the one that performs the greatest number of operations, but the one that leaves behind stronger local surgeons, safer systems, and a commitment to continued care.

For me, this paradigm change represents the future of global cleft surgery. It respects the patient, empowers the local team, and challenges the visiting surgeon to become not only a technical expert, but also a responsible educator and partner. The experience in Mtwara strengthened my belief that sustainable education is the most powerful legacy an international cleft program can leave behind.

MEMBER NEWS

CHILDREN'S HOSPITAL OF PHILADELPHIA SELECTS JESSE A. TAYLOR, MD AS SURGEON-IN-CHIEF

JESSE TAYLOR
ISCFS Secretary-Treasurer
UNITED STATES

Children's Hospital of Philadelphia (CHOP) is pleased to announce that Jesse A. Taylor, MD, Chief of the Division of Plastic, Reconstructive and Oral Surgery at CHOP, has been selected as the new Surgeon-in-Chief and Chair of the Department of Surgery, effective July 1, 2026, following a competitive national search.

During his eight-year tenure as division chief, Dr. Taylor expanded clinical programs, research initiatives, and quality improvement efforts and increased international patient referrals. He holds the Peter Randall Endowed Chair in Plastic Surgery and serves as a Professor in the Division of Plastic Surgery at the Perelman School of Medicine at the University of Pennsylvania. He will succeed Dr. N. Scott Adzick, who is concluding his tenure as Surgeon-in-Chief after 31 years.

Dr. Taylor treats children and adolescents at CHOP with craniofacial differences and co-directs CHOP's Craniofacial Program. He is active in national and international professional societies, contributes to outcomes research in cleft and craniofacial surgery, and participates in international visiting professorships and surgical mission work. His translational research focuses on craniofacial anomalies, airway management, and surgical technology, contributing to implantable devices for craniofacial distraction osteogenesis and to international best practice guidelines. He has authored more than 370 peer reviewed articles and serves as director of the American Board of Plastic Surgery and as Secretary-Treasurer of the International Society of Craniofacial Surgery. He is a frequently invited speaker throughout Africa, East Asia, Europe, and South America.

"I'm honored to assume the role of CHOP's Surgeon-in-Chief at an institution that champions diligence, compassion, and collaborative, cross-disciplinary care," said Taylor. "Together with our exceptional team, I will work to accelerate innovation, optimize recovery, and deliver top outcomes for every child and family." Dr. Taylor served as director of the Craniofacial Fellowship Program, is the Vice-President of Penn's Center for Human Appearance, and has served as president and board member of Children's Surgical Associates.

ISCFS WELCOMES NEW MEMBERS

New Active and Associate members were admitted by vote of current Active Members in June.

ACTIVE MEMBERS

Vybhav Deraje - INDIA
Graeme E. Glass - UK
Aaron C. Mason - USA
S. Alex Rottgers - USA
Rajendra Sawh-Martinez - USA

ASSOCIATE MEMBERS

Masafumi Kamata, JAPAN
Shelby Nathan - USA
Nicholas Sader - USA

RESIDENT/FELLOW MEMBERS ADMITTED IN 2026 – VOTE NOT REQUIRED

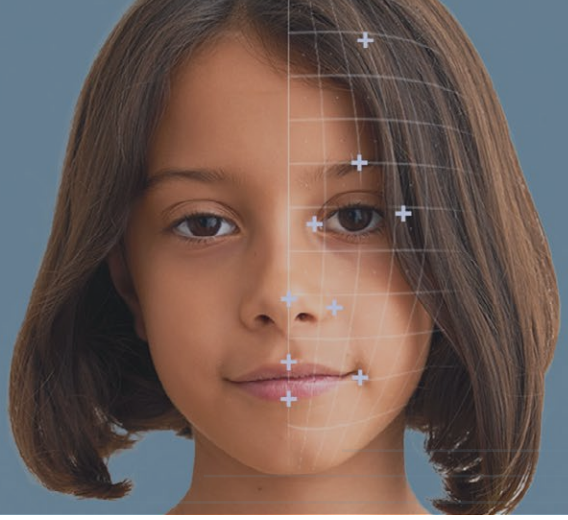
Elizabeth Card - USA
Aileen Egan - CANADA
Rawan ElAbd - CANADA
Nicole Episalla - USA
Solomon Lee - USA
Sadeq Qanah - IRAQ
Zachary Zapatero - USA

I encourage you to promote membership to your colleagues. The next vote to admit new members will be in December. The process is not difficult with on-line applications available at: https://iscfs.org/membership/

JESSE TAYLOR
ISCFS Secretary-Treasurer & Membership Chair
UNITED STATES

BECOME AN ISCFS MEMBER

The next vote to admit new members will be in June.



We welcome membership applications in Active, Associate, Corresponding, Orthodontic, Research, and Resident/Registrar/Fellow categories and have created a simple on-line process. Current member specialties include plastic, craniofacial, oral and maxillofacial surgeons, neurosurgeons, orthodontists, otorhinolaryngologists, dentists, and those involved in related research.

There is a $75 application fee and annual fees are $200 for Active/Associate members and $75 for Resident/Registrar/Fellow members. Our website includes information about qualifications for membership and frequently asked questions at this link: https://iscfs.org/membership/

MEMBERSHIP BENEFITS

- Global Visibility
- International Recognition
- Reasonable yearly membership fees
- Reduced registration fee at the biennial international ISCFS Congress
- Professional networking
- Access to past webinars through website Members' Area

JOIN US!

ACTIVE/ASSOCIATE

RESIDENT/REGISTRAR/ FELLOW

POURQUOI PAS? INTERNATIONAL SOCIETY OF CRANIOFACIAL SURGERY

INTERNATIONAL SOCIETY OF CRANIOFACIAL SURGERY

www.iscfs.org

EVENT CALENDAR

EACMFS

28th Congress of the European Association for Cranio Maxillo Facial Surgery
Location: Athens, Greece
Date: September 15-19, 2026
Website:
www.eacmfs-congress.com

ESCFS

European Society of Craniofacial Surgery Congress
Location: Ankara, Türkiye
Date: September 17-19, 2026
Website:
www.escfs2026.org

ISAR 2027 CONGRESS

4th World Congress - International Society for Auricular Reconstruction
Location: Utrecht, Netherlands
Date: June 3-5, 2027
Website:
https://isar-ear.com

ISCFS 2027

22ND BIENNIAL CONGRESS

Location: Rotterdam, Netherlands
Date: September 7–10, 2027
Website: www.iscfs.org

To submit a meeting to the calendar in our next issue, send the following information to admin@iscfs.org: Meeting Title, Location, Dates, Website.

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INTERNATIONAL SOCIETY OF CRANIOFACIAL SURGERY

LEGAL ADRESS
Hub 11571
3401 Civic Center Blvd
Philadelphia, PA 19104
United States

MAILING ADDRESS
US:
38 Rayton Road
Hanover, NH 03755 USA

EUROPE:
Reitmorstrasse 25
80538 Munich, Germany

US email: admin@iscfs.org
Europe email: office@iscfs.org

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ISCFS 2027

INTERNATIONAL SOCIETY OF CRANIOFACIAL SURGERY

7-10 SEPTEMBER

Rotterdam | Netherlands

SAVE THE DATE

The International Society of Craniofacial Surgery invites you to Rotterdam, Netherlands for the 22nd Congress on September 7-10, 2027.

Prof. Dr. Irene Mathijssen
ISCFS Congress President (Rotterdam)

SEE YOU IN ROTTERDAM!