International Society of Craniofacial Surgery

ISCFS NEWSLETTER

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APRIL 2025

MESSAGE FROM THE EDITOR

"Our society thrives because of the dedication and expertise of its members. "

Dear Colleagues and Members of the International Society of Craniofacial Surgery,

As we step into 2025, I am filled with immense pride and optimism for the future of our field. This new year offers us not just the opportunity to reflect on our past achievements, but also to chart ambitious paths forward in innovation, collaboration, and excellence in craniofacial surgery. Together, we have continued to push the boundaries of what is possible, transforming lives and shaping the future of surgical science.

This October, our biennial Congress will take center stage in Shanghai, China, on October 27–30. This event promises to be a landmark gathering, uniting leading minds, seasoned practitioners, and emerging talents from across the globe. The theme for this year's meeting, *Bridging Frontiers: Innovation and Integration in Craniofacial Surgery*, reflects our collective commitment to advancing our field through cutting-edge research, interdisciplinary collaboration, and global engagement.

Shanghai, a city renowned for its vibrant fusion of tradition and modernity, will provide an inspiring backdrop for this premier event. From groundbreaking plenary sessions to hands-on workshops, we will explore the latest advancements in craniofacial surgery, share transformative case studies, and foster the exchange of ideas that drive our specialty forward. I encourage each of you to mark your calendars and begin planning your participation. The biennial Congress is not just a platform for knowledge-sharing; it is a celebration of our shared dedication and passion for making a difference in the lives of our patients.

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Beyond the Congress, our society's commitment to continuous education and innovation is evident in our quarterly webinar series which has grown into a vital resource for members worldwide. These webinars serve as a platform to disseminate the latest knowledge, engage in thought-provoking discussions, and spotlight emerging trends in craniofacial surgery.

A heartfelt congratulations is in order for the success of our January webinar, which focused on Facial Contouring Surgery—a rapidly evolving and increasingly significant area within our field. The webinar not only highlighted the extraordinary advancements being made in this domain, but also underscored the creative and technical prowess of our presenters, Drs. Swanson, Lo, and Mu, who continue to pioneer new techniques and approaches. Equally impressive was the high-level neurosurgical discussion in April's Webinar, "Chiari Malformation—separating fact from fiction." Drs. Jayamohan, Paternoster, and Chen went right to the heart of the matter, clarifying a diagnosis that bewilders many craniofacial surgeons. As we look ahead, the remaining webinars in 2025 promise to be equally engaging and enriching. Each session will delve into critical topics, from advances in craniosynostosis management to innovations in 3D surgical planning, ensuring that our members remain at the forefront of scientific and clinical progress. I urge you to take full advantage of these opportunities, not just to learn but to contribute your insights and experiences. ISCFS members now have access to recordings of past webinars in the Members' Area of our website.

Fostering the education of our young surgeons is both rewarding and critical to our specialty. The new Fellowship Directory on our website lists training programs offered by our members – and the list continues to grow as more programs are added. I encourage members to submit the on-line form in the Members' Area under Membership Benefits to add your program.

Our society thrives because of the dedication and expertise of its members. Your participation – whether as speakers, authors, researchers, or attendees – is the driving force behind our achievements. As we navigate this year, I encourage each of you to think boldly, collaborate widely, and innovate fearlessly. The challenges we face in craniofacial surgery are complex, but together, we have the ingenuity and determination to overcome them. Let us embrace technology, nurture interdisciplinary partnerships, and mentor the next generation of surgeons to ensure that our field continues to flourish.

On behalf of the editorial team, I want to express my gratitude for your unwavering support of the International Society of Craniofacial Surgery and its initiatives. Your contributions to our community – through research, clinical practice, and education – are what make our society a global leader in advancing craniofacial care. I look forward to seeing many of you in Shanghai this October, where we will celebrate the extraordinary strides we have made and envision the future we are building together. Until then, I wish you a year filled with discovery, collaboration, and impactful innovation. Let us make 2025 a landmark year for craniofacial surgery.

JESSE TAYLOR
ISCFS Secretary-Treasurer
UNITED STATES

MESSAGE FROM THE PRESIDENT

Dear Members,

ISCFS Council held an online meeting on February 4th, 2025 regarding the organization and progress of the coming international Congress.

The general framework is as follows:

1. The Pre-Congress Symposium will be held on Monday, October 27, 2025. The main content will be orthognathic and orthodontic treatment, co-directed by Professors Xudong Wang and Lun-Jou Lo. The afternoon session will feature content related to craniosynostosis and will be co-hosted by Drs. Jesse Taylor, Richard Hopper and Irene Mathijssen.

2. The Congress will have a special session on Asian experiences during the next three days. A special panel session of approximately one hour will be arranged daily in the main venue. It is planned to select experienced topics from the submitted abstracts. Additionally, there will be a discussion session of about twenty minutes to compare the surgical techniques between East and West.

3. We hope to receive more submissions regarding the application of new technologies such as artificial intelligence and surgical navigation.

The Congress is approaching. We call on all members to submit their contributions as early as possible and to mobilize experts and scholars in their respective countries to actively participate.

Shanghai welcomes you all.

XIONGZHENG MU
ISCFS President
CHINA

"We call on all members to submit their contributions as early as possible."

21ST ISCFS CONGRESS

"The white magnolia was chosen as a symbol of the pioneering and aspiring spirit of Shanghai's people

SHANGHAI FACTS AND HISTORY

Provided by
XIANXIAN YANG
CHINA

MUNICIPAL FLOWER AND EMBLEM

The white magnolia was approved as the flower of Shanghai by the Standing Committee of the Shanghai Municipal People's Congress in 1986. As a magnolia species, the white magnolia blossoms in early spring with big, spotless white petals pointing upward. It was chosen as a symbol of the pioneering and aspiring spirit of Shanghai's people.

The city's emblem design was approved by the Standing Committee of the Shanghai Municipal People's Congress in 1990. It is a triangular symbol consisting of a white magnolia flower, a large sand junk, or Chinese boat, and a ship propeller, symbolizing the continuous advancement of the city. In the middle of the emblem, the large sand junk with its sails set is one of the oldest vessels plying the waters around Shanghai and represents a long history as a port city. The sand junk, set against a white magnolia flower blossoming in early spring, symbolizes the energy and vitality of Shanghai.

Source: Shanghai Almanac 2023

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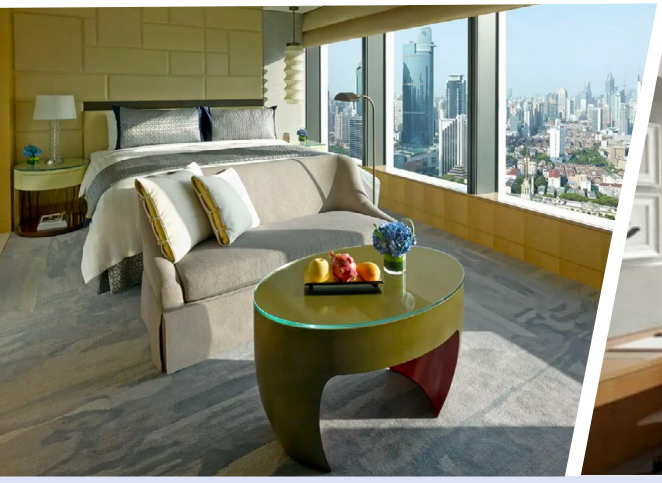

Jing An Shangri-La, Shanghai

1218 Middle Yan'an Road, Jing An Kerry Centre West | Nanjing Road | Shanghai 200040 (China)

ISCFS BULLETIN BOARD

NEXT WEBINAR TOPIC – JUNE

Management of the Hemifacial Microsomia Mandible from Birth to Maturity

June 30, 2025 | 5:00 pm UTC

Join us on Monday, June 30, 2025, at 5:00 pm UTC for an in-depth discussion on **"Management of the Hemifacial Microsomia Mandible from Birth to Maturity"** with panelists Scott P. Bartlett (United States), Eppo B. Wolvius (The Netherlands), Fernando Molina Montalva (Mexico), Moderator: Jesse Taylor(United States).

FELLOWSHIP DIRECTORY

We are pleased to report that we now have 10 fellowship programs listed in the new Fellowship Directory on our website.

Countries include: **Australia, Canada, Colombia, Mexico, UK and US.**

See the list at this link: www.iscfs.org/fellowship-program

Members, to submit a fellowship program to be included in the directory:

1. Using your secure password, log into the new Members' Area
2. Click on Membership Benefits
3. Click on Submit Fellowship Program
4. Complete the on-line form

Thank you to all who have submitted their programs.

MEMBER NOTES

Members, take your craniofacial knowledge to the next level. View recordings of our expert-led quarterly educational webinars at www.iscfs.org in the Members' Area under Benefits. Explore techniques, learn about changes in surgical management, follow current challenges, and hear the questions and answers from live participants.

Make sure patients can find you. Log in to the ISCFS Members' Area to update your profile and to appear in the "Find a Surgeon" directory, one of the key benefits of your membership. Take a moment to boost your visibility and connect with those who need your expertise.

A GLOBAL SURVEY OF CRANIOFACIAL FELLOWSHIP TRAINING: KEY INSIGHTS

DAVID DAVID
AUSTRALIA

MOHAMMAD GOODARZI
UNITED KINGDOM

NEAL MCLEAN
AUSTRALIA

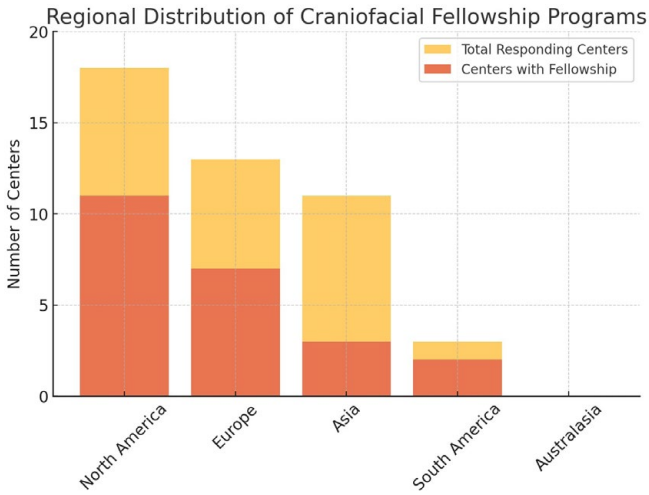

Chart 1: Regional distribution of survey respondents and presence of craniofacial fellowship programs.

RESPONDENTS AND FELLOWSHIP AVAILABILITY

An international survey on craniofacial fellowship training was conducted. 45 centres responded and 23 of these (51%) reported having a formal craniofacial fellowship program ***(Chart 1)***.

FELLOWSHIP TRAINEE BACKGROUND AND ENTRY CRITERIA

83% of fellowship trainees were from a plastic and reconstructive surgery background. A minority of programs (35%) also trained oral and maxillofacial surgeons, and a smaller number accommodated neurosurgeons (17%) or otolaryngologists (13%). These figures suggest that craniofacial fellowships are primarily a subspecialty extension of plastic surgery training, with some multidisciplinary input from related fields. Regarding entry requirements, 60% of programs require completion of surgical training with board certification. A few North American centres specifically require ACGME-accredited plastic surgery training. This indicates that most fellowships ensure trainees are fully qualified surgeons, though a minority (13%), mainly in Europe and Asia, have more flexible or informal entry pathways.

FELLOWSHIP STRUCTURE AND CURRICULUM

Duration: 90% of fellowship training involved a one-year commitment. A few exceptions

exist, including a 6-month program in Asia and flexible extensions in selected European centres.

Curriculum: 48% of the fellowships have a formal curriculum in place. Formal curricula were more frequently reported in North America (where accreditation standards often mandate them) and in two of the three Asian programs, while most European programs rely on mentor-guided training. This variability suggests the necessity for greater standardisation, as many fellows train without a defined syllabus.

Fellowship Activities and Training Components: Despite differences in curricula, the clinical and educational activities offered are broadly similar across most programs. ***Chart 2*** summarises the key components of fellowship training.

All responding fellowships ensure that fellows participate in outpatient clinics and in the operating rooms under supervision, guaranteeing exposure to patient evaluation and surgical techniques. Around three-quarters of the programmes provide formal didactic teaching sessions. Notably, about 61% of programs allow fellows some degree of independent operating, which is an important step in building confidence and autonomy. Additionally, almost one-third facilitate visits to other craniofacial centres, enabling fellows to gain experience from different experts, and about a quarter conduct regular assessments such as mock examinations to evaluate knowledge. Beyond technical training, fellowships emphasise broader competencies. All programs integrate multidisciplinary team training for the fellows and all reported instilling "knowledge of scientific principles," emphasising a foundation in basic and applied craniofacial biology. The vast majority (87%) expected fellows to present and/or publish original craniofacial research during their fellowship. Furthermore, 78% of programs address the ethical aspects of craniofacial surgery as part of the fellowship, ensuring that graduates are prepared to handle complex ethical issues in patient care. In summary, while not all programs follow a formal written curriculum, nearly all cover a comprehensive mix of clinical, academic, and professional training facets.

Exit criteria and certification: Approximately half of the fellowships award a formal certificate of completion to the

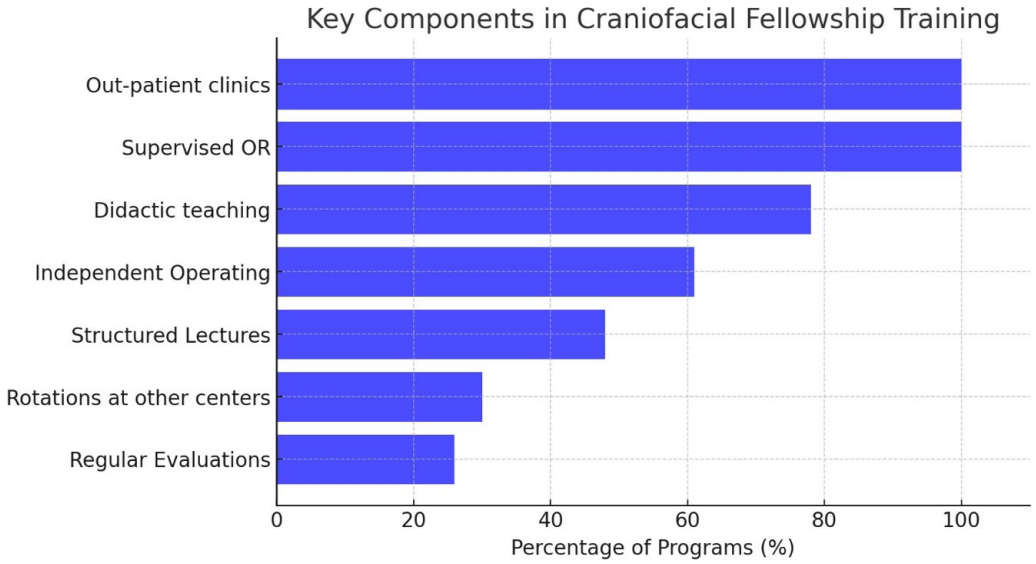

Chart 2: Structured activities included in craniofacial fellowship programs.

fellow. A smaller number have a more rigorous exit process: a few (including one in South America and one in Europe) require a formal exit examination, sometimes leading to a university-awarded degree/diploma. About 17% of programs indicated no specific exit examination or formal assessment, beyond the prerequisite of completing the fellowship period. In one instance, it was noted that successful completion directly led to a consultant (attending surgeon) appointment, highlighting how a fellowship can transition into a career post.

CLINICAL SCOPE AND CASE EXPOSURE

This survey confirms that craniofacial fellows are exposed to a broad spectrum of cases. The participating units collectively treat a wide range of craniofacial conditions, indicating that fellows rotate through diverse surgical cases ***(Table 1)***. Overall, the "core" craniofacial procedures (craniofacial congenital corrections, trauma, orthognathic surgery) are ubiquitous, ensuring all fellows get essential case exposure, while exposure to ultra-specialised cases like TMJ reconstruction or craniofacial oncology may depend on the fellowship location.

FELLOWSHIP FUNDING

The majority of fellowship posts (57%) are funded by the host unit ***(Chart 3)***. Another significant portion (~22%) are funded through university or academic grants, especially in programs with strong academic affiliations (common in North America). About 4% of programs indicated the fellow is self-funded. These arrangements highlight that in some regions (notably Asia and parts of Europe/South America), fellows may need to secure external funding or have a sponsored position, whereas in North America institutional funding is more the norm.

The reliance on hospital or university funding in ~80% of programs highlights the importance of institutional support for training positions with fellows from less-resourced regions only being able to train if they bring their own funding or scholarships. These findings prompt discussion about funding sustainability for global fellowship training.

POST-FELLOWSHIP CAREER RETENTION

An important outcome of fellowship training is whether graduates continue to practice in the craniofacial specialty. The

Condition	Percentage Treated (%)
Le Fort/mandibular osteotomies	100
Hemi-Facial microsomia	96
Craniomaxillofacial trauma	96
Neurofibromatosis/fibrous dysplasia	96
Craniosynostosis	93
Rhinoplasty	93
Cleft lip and palate	89
Rare Tessier clefts	84
Encephaloceles	80
Microsurgical reconstruction	73
TMJ surgery	56
Transcranial malignancy	51
Hemi hypertrophies, vascular malformations	2
Skull base surgery	2

Table 1: Exposure to surgical cases during fellowship

median value was around 60%, meaning in a typical program more than half of the fellowship alumni stay in craniofacial practice. Many centres reported in the order of 60–80% retention of fellows in the field. Several programs, particularly those in North America and Europe, noted high retention rates (some as high as 100%). Overall, these figures indicate that craniofacial fellowship graduates largely remain engaged in the subspecialty, contributing to the growth and expertise of craniofacial surgery worldwide. This high retention also suggests that the additional training successfully motivates and prepares surgeons for careers dedicated to craniofacial work.

CONCLUSION

This first-of-its-kind survey provides a valuable snapshot of current craniofacial fellowship training practices globally. Despite regional differences, there are clear commonalities: most fellowships are one year long, expose trainees to a comprehensive range of craniofacial conditions, and emphasise multidisciplinary care and research. While all aim to produce competent craniofacial surgeons, variations in curricula, exams, and funding reflect diverse healthcare systems. The findings of this study can inform efforts by the International Society of Craniofacial Surgery (ISCFS) and related organisations to harmonise training standards and share best practices.

In summary, the survey highlights a robust global commitment to training the next generation of craniofacial surgeons and provides insight into how these training experiences can be enriched and made more accessible across all regions.

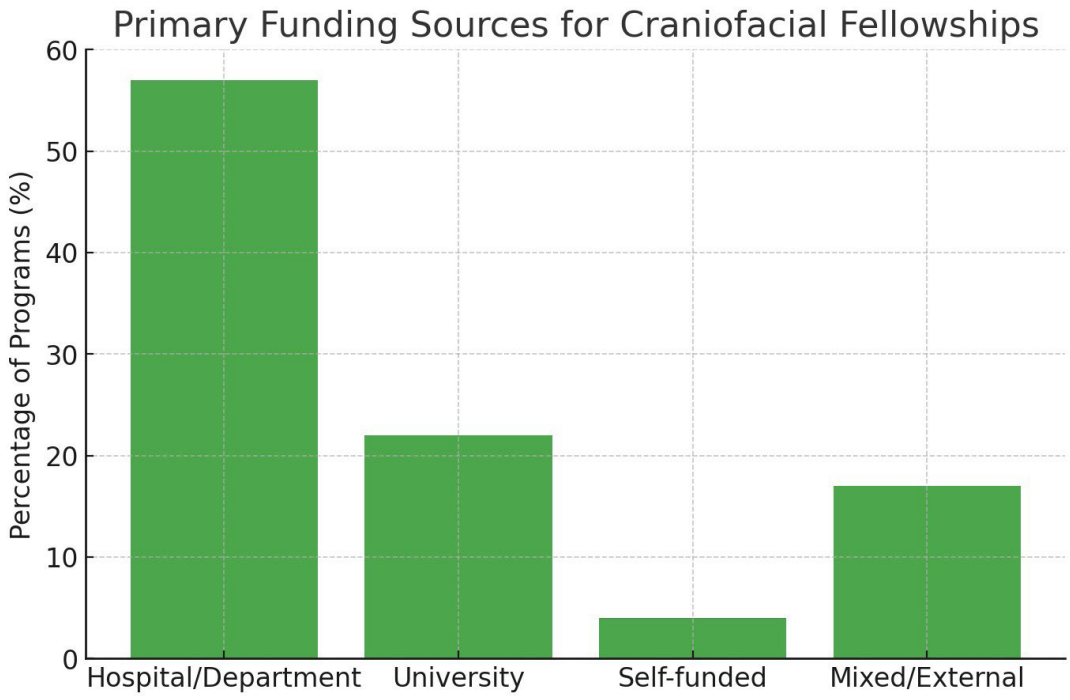

Chart 3: Primary funding source for craniofacial fellowship positions.

MY WAY: TECHNIQUE FOR PERFORMING BSSO

SAGITTAL SPLIT OSTEOTOMY

SRINIVAS M. SUSARLA
UNITED STATES

The sagittal split osteotomy (SSO) can be a challenging operation for early-career craniofacial surgeons. The observations below have made the SSO more straightforward for me:

I. MEDIAL HORIZONTAL OSTEOTOMY

The common contemporary horizontal osteotomy cut is placed above the lingula and propagated into the retrolingular fossa. While this technique works consistently well in most typical mandibles, for many patients with craniofacial anomalies, the ramus anatomy will be abnormal. Patients with thin rami (< 5 mm thick), such as those with congenital micrognathia, may have a paucity of bone in the medullary space above the lingula. This makes it difficult to reliably split between the cortices. To address this, I use the technique described by Jeff Posnick, wherein the medial horizontal osteotomy is located at or slightly above the mandibular occlusal plane, where there is a consistent medullary space. While I initially used this technique for mandibles with atypical ramus morphology, I found it easy to perform and teach and now use it for all SSOs.

Link: Occurrence of a 'bad' split and success of initial mandibular healing: A review of 524 sagittal ramus osteotomies in 262 patients

Link: The Low Medial Horizontal Osteotomy in Patients with Atypical Ramus Morphology Undergoing Sagittal Split Osteotomy

II. OSTEOTOMY CUT

While the reciprocating saw may be favored by many surgeons due to speed, I have found that modern piezoelectric devices have comparable cutting efficiency. In addition, the tactile feedback when using the piezoelectric saw allows the surgeon to distinguish between cutting through cortical bone and medullary bone, which can be helpful when the corticotomy approaches the cortical boundary of the inferior alveolar nerve canal. When our group compared piezoelectric versus reciprocating saws, neurosensory recovery (time to S4 sensation) was faster with the piezoelectric saw.

Link: Does the use of a piezoelectric saw improve neurosensory recovery following sagittal split osteotomy?

III. MANAGEMENT OF THE INFERIOR ALVEOLAR NERVE (IAN)

One consequence of the low medial horizontal osteotomy is that, due to its location below the lingula, it is not uncommon for the IAN to be tethered between the proximal and distal segments following the SSO. Classical teaching is that the nerve must be completely freed in this scenario; we have found that leaving the nerve in place does not impair neurosensory recovery, even for large (>10 mm) mandibular movements.

Link: Is It Necessary to Free the Inferior Alveolar Nerve From the Proximal Segment in the Sagittal Split Osteotomy?

Link: Management of the Inferior Alveolar Nerve in Large Sagittal Split Advancements: To Free or Not?

IV. SEQUENCING FOR BIMAXILLARY SURGERY

I almost uniformly perform the BSSO first. While this precludes the use of patient specific implants for the midface movement, there are several advantages to this approach germane to patients with craniofacial differences. Patients with class II skeletal malocclusions with bimaxillary retrusion are often treated with bimaxillary advancement. In this setting, maxilla-first surgery would result in an intermediate position that would be challenging for fixation due to a large overjet. Similarly, patients requiring counterclockwise occlusal plane rotations (e.g. Treacher Collins syndrome, Apert syndrome) often have more favorable intermediate positions when the mandible osteotomy is performed first, as there will be a posterior open bite and little to no anterior open bite. If the maxillary osteotomy is performed first, counterclockwise rotation of the palatal plane will result in posterior occlusal contact and a large anterior open bite. Patients with unreliable centric relation (e.g. those with type IIb/III craniofacial microsomia who have had prior ramus condyle unit construction) also benefit from mandible-first sequencing. If the centric record is incorrect and the maxillary operation is performed first, one may end up with a maxillary midline deviation. If the centric relation record is incorrect and the mandible osteotomy is performed first, the sagittal movements may not be exactly as planned, but the midline will be correct. Our institutional experience has been that surgical sequencing does not affect the accuracy of maxillary positioning in patients undergoing cleft orthognathic surgery. Finally, the mandible operation is more technically challenging for trainees – why wait to "do the hard part?"

Link: Does surgical sequencing influence the accuracy of maxillary positioning in bimaxillary cleft orthognathic surgery?

Link: Sequencing Bimaxillary Surgery: Mandible First

TECHNIQUE FOR PERFORMING BSSO

BILATERAL SAGITTAL SPLIT OSTEOTOMY (BSSO)

"We have developed a refined technique that enhances safety while maintaining surgical efficacy'

CHEE SENG LEE
SINGAPORE
National University of Singapore

LUN-JOU LO
TAIWAN
Chang Gung University

Bilateral Sagittal Split Osteotomy (BSSO) remains one of the most effective techniques in orthognathic surgery for mandibular correction. However, complications such as inferior alveolar nerve (IAN) injury and unfavourable bone splits have prompted refinements of its approach. We have developed a refined technique that enhances safety while maintaining surgical efficacy.[1-3] Preoperative planning is essential and begins with cone beam computed tomography (CBCT) imaging to assess the inferior alveolar nerve's position within the mandibular ramus. High-risk cases are identified when the IAN is adjacent to the buccal cortex.

SOFT TISSUE DISSECTION

The surgical procedure begins with a standard BSSO incision, making a mucosal cut approximately 0.5 cm lateral to the mandibular ridge and extending it to the first molar level. Subperiosteal dissection is then performed to expose the lateral, inferior, and medial surfaces of the mandible. Partial dissection of the temporalis muscle insertion at the coronoid process follows. The medial ramus is exposed via a subperiosteal dissection above the lingula to prevent direct exposure of the IAN and minimize injury risk. Complete posterior dissection is confirmed by ensuring contact between the lateral and medial ramus retractors at the posterior mandibular ramus.

CORTICOTOMIES

Using a 3 mm round bur, the medial corticotomy is performed above the lingula and just into cancellous bone. A Lindemann bur is then used to complete the osteotomy at the posterior border of the mandible. Following this, a buccal corticotomy is cut obliquely, starting from the second molar and extending to the inferior mandibular border 1 cm anterior to the mandibular angle and through the inferior border ***(Figure 1)***.[3]
A reciprocating saw is then used to cut the anterior ramus border, connecting the upper medial and lower buccal corticotomies. The saw blade must not be passed beyond 10-mm depth because the IAN is usually located around 15mm deep to the anterior border. Furthermore, the tip of the saw should be placed laterally close to the buccal cortex in the cancellous space to reduce the chance of direct nerve injury ***(Figure 2).*** [3]

BONY SPLIT

Once the corticotomies are complete, ramus splitting is initiated. A Dautrey osteotome is inserted into the anterior corticotomy site, maintaining

lateral contact with the buccal cortex for the first 10mm. By applying controlled twisting force, the proximal and distal segments are gently separated, allowing clear visualization of the nerve tract ***(Figure 3)***.[3] If the IAN is exposed during this stage, it is gently repositioned into the distal segment before proceeding further. Under visualisation through the anterior opening, a straight 4 or 6mm osteotome is inserted lateral to and passed beyond the IAN, and then struck to split the posterior ramus cortex ***(Figure 4)***. [3] An elevator can be inserted and twisted to help separating the cortexes. This manoeuvre is repeated until the sagittal split is completed. If the mandible is set back, the posterior rim of the distal segment is cut with a right angle saw to prevent posterior bony protrusion and to remove the insertion of the medial pterygoid muscle, reducing its protraction force and preventing skeletal relapse. The contralateral mandible is then split in the same manner.

FIXATION AND CLOSURE

After the osteotomy is completed, the occlusion is verified, and the distal segment is positioned according to the preoperative plan. The proximal segment is ensured to be in a relaxed position without torque or strain to the temporomandibular condylar head. A small degree of inward or outward rotation of the proximal segment is sometimes required to achieve cheek symmetry. Fixation of the proximal and distal segments is achieved using three bi-cortical screws inserted via a trans-buccal approach through a small skin incision. The surgical site is thoroughly irrigated to remove bone dust and fragments, ensuring a clean field before assessing for haemostasis and closing with resorbable sutures.

CONCLUSION

The refined approach for the sagittal split osteotomy significantly reduces the risk of IAN injury, unfavourable splits, and bleeding. By incorporating meticulous preoperative planning, limited medial dissection, precise osteotomy execution, the Dautrey osteotome twist manoeuvre, visualisation of the IAN tract, passing of the osteotome beyond the IAN, this method represents a safe and effective approach to perform the sagittal split osteotomy.

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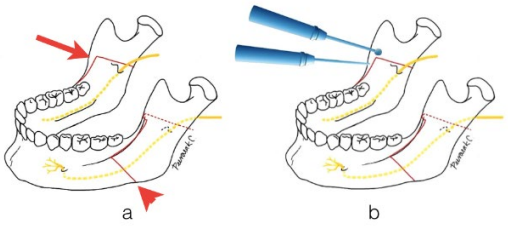

Figure 1

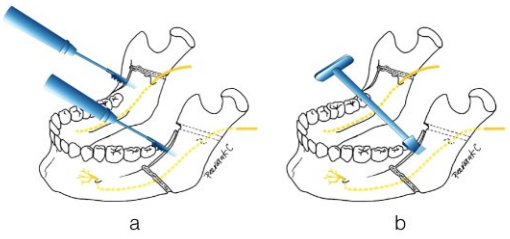

Figure 2

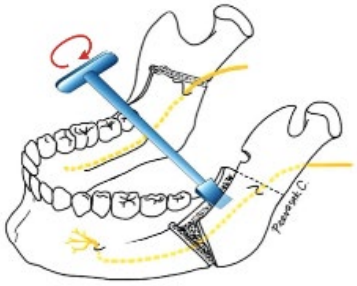

Figure 3

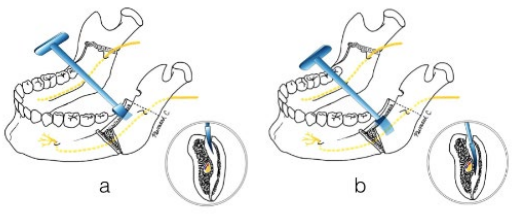

Figure 4

Image Source: Ann Plast Surg. 2017 Mar;78(3 Suppl 2): S108-S116

WINDOW INTO HISTORY

EARLY SURGERY OF FACIAL AND CRANIOFACIAL MALFORMATIONS

Repair of congenital facial deformities like cleft lip was not mentioned in medical literature until the middle of the 14th century, when the Flemish surgeon **Jehan Yperman** (ca.1260-1331) in the manuscript Cyrurgie (Surgery), described closure of the uni- or bi-lateral cleft of the lip by margins approximation using the scalpel to freshen the borders [1]. Regrettably, the manuscript remained unknown for almost five centuries, until it was rediscovered in a British Library in the second half of the 19th century, and published in 1863. It is regarded as the first documented account on the surgical treatment of cleft lip.

Before that, in Rome, about AD 30, **Aulus Cornelius Celsus** (25 BC-50 AD), authored De Medicina (On Medicine) in eight volumes, in which he reported on lip closure for various etiologies, possibly cancer of the lower lip, by two advancement cheek flaps [2]. There is no mention of congenital cleft of the lip. The result was apparently very poor with only a minimal residual mouth opening.

Abu-l-Qa-Sin (Albucasis) (AD 936-1013), the most representative Arabian surgeon, was a supporter of cautery for different clinical applications, including closure of lip defects [3]. He was against the scalpel, favoring the use of cautery instead for creating a scar, which resulted in the approximation of the lip's margins.

In the second half of the 16th century, the Frenchman **Pierre Franco** (c. 1500-1578) described the technique for closing a lip defect in detail using scalpel and needles [4]. This is what he wrote: "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." In the same year of 1561, the most celebrated French surgeon **Ambroise Paré** (1510-1590), published the first illustration of a cleft lip closure ***(Figure 1)*** [5]. Great emphasis was given to the type of suture, a sort of figure of eight.

RICCARDO F. MAZZOLA
History Editor
ITALY

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

Figure 1 – First image of a cleft lip suture in medical literature. From: Paré A. La méthode curative des playes, 1561 [5]

Surgery for cleft palate repair was not performed until the second decade of the 19th century. The operation was regarded as a very difficult procedure. Bleeding, lighting, armamentarium, and lack of anaesthesia were the major obstacles. Priority for the cleft palate closure is shared between the German **Carl Ferdinand von Gräfe** (1787-1840) [6] and the Frenchman **Philibert Joseph Roux** (1780-1854) [7]. Both of them attempted a velar closure by margin approximation and suture. In von Gräfe's case, wound breakdown occurred gradually and the palate reopened completely, whereas in Roux's patient, only the uvula remained divided. I suggest referring to *Plastic Surgery: An Illustrated History for a detailed account on the different techniques for cleft lip and palate closure over the years* [8].

During the 19th century, the Frenchman **Jacques Mathieu Delpech** (1772-1832) reported the repair of a naso-ocular cleft by transposing a paramedian forehead flap in 1828 [9] ***(Figure 2)*** – the first example of surgery for cranio-facial malformation in the medical literature. In the US, **John Collins Warren** (1778-1856), at Massachussest General Hospital in Boston, excised a large facial haemangioma. The operation, performed on October 16, 1846, represented a true breakthrough in the history of medicine. For the first time, ether was administered to a patient who had no pain during the whole procedure. Hence, the date of October 16, 1846 is best remembered as Ether Day or Death of Pain, opening a new era for modern surgery [10].

In the 20th century, the Frenchman **Adolphe Jalaguier** repaired a bilateral naso-ocular cleft in a child with a series of operations performed under general anaesthesia, by transposing multiple local skin flaps. The final result, with the photo of the patient ten years after the first procedure, shows a successful outcome [11] ***(Figure 3 a,b,c)***. To our best knowledge, this is the second case of surgery for craniofacial malformation in the medical literature.

In the mid-20th century, major craniofacial malformations were palliatively treated using different techniques. Correction of hypertelorism, mimic orbital

Figure 2 – Naso-ocular cleft repaired by paramedian forehead flap. From: Delpech JM Chirurgie Clinique de Montpellier (Clinical Surgery of Montpellier), 1828 [9]

and eyebrows approximation, was by resection of a large frontonasal elipse of skin, epicanthal fold surgery and reduction of the large nasal basis with osteotomies. To enhance the flatness of the anterior facial region, onlay bone graft was advocated [12].

We must await **Paul Tessier** (1917-2008) who emphasized the importance of intracranial access as the sole solution to mobilize the abnormally distant orbits, and to approximate and wire them along the midline.

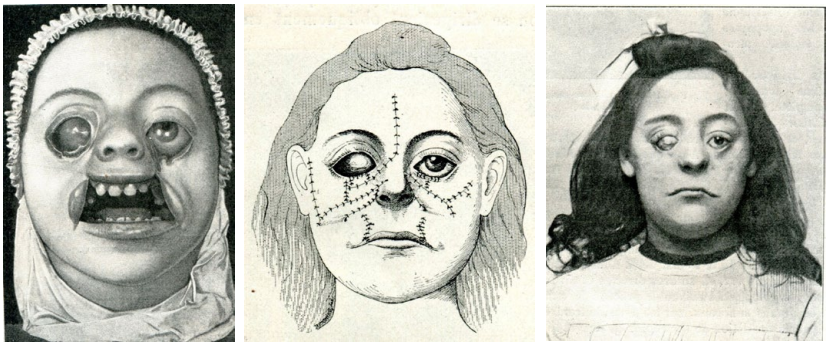

Figure 3 a,b,c – Congenital bilateral oro-ocular cleft, treated with multiple flaps: a) Before surgery, aged 26 months; b) Outlining multiple skin flaps to correct the bilateral oro-ocular cleft; c) Result ten years after surgery. From: Jalaguier A. Colobome facial bilatéral (Bilateral facial coloboma), 1909 [11]

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NEW TECHNOLOGY

"Clinicians take nearly 200 million clinical photos per year..."

MICHAEL GOLINKO
UNITED STATES

IMAGE ASSIST: AI TECHNOLOGY TO ELIMINATE PAIN POINTS IN CLINICAL PHOTOGRAPHY

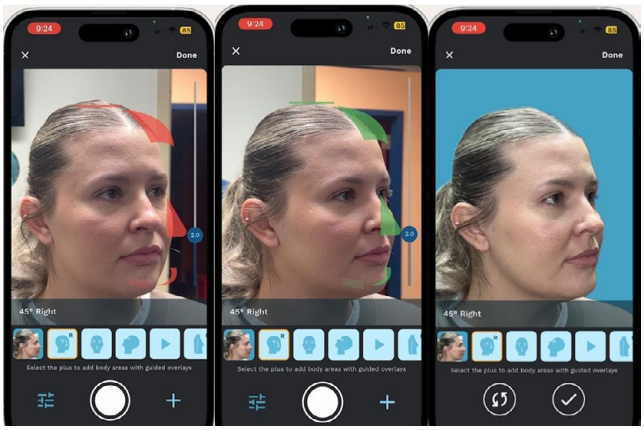

Figure 1

Personal alongside patient photos on smartphones, inconsistent background and quality, in addition to cumbersome transfer to the medical record, are but a few of the pain points that plague modern clinical digital photography. Clinicians take nearly 200 million clinical photos per year and although published guidelines exist, they are challenging to implement as often a special room, equipment and staff are needed.

With the ASPS/PSF photographic standards as inspiration [1], we teamed up with coders at Vanderbilt University to begin development of an iOS mobile application built right into EPIC Haiku. Patent-pending AI SmartFrames™, like mobile check deposit, go red to green with body alignment consistent with Society standards. An example of the 45 degree right facial view detections is shown in ***(Figure 1)***.

The minimum viable product (MVP) was first launched on Vanderbilt's Epic platform in 2021. Since then, it has been used to take over 6,000 photos of

more than 2,500 patients. The first published report and initial user survey was published in Annals of Plastic Surgery in 2024. [2]

Thanks to seed funds from the ASPS Innovation Challenge in 2023 and further competitive non-dilutive funding, the ImageAssist app is now available for iPhone or iPad via Apple's App Store with the QR code shown in ***(Figure 2)*** or at: www.imageassist.com

Since the MVP first appeared, the functionality has substantially improved. Standardized body templates for face, upper and lower extremity and torso are all built into the app and clinicians can set their preferences for body areas to save time capturing images. Video clips can also be acquired alongside static images. The background is then subtracted to a standard light blue. Images do not appear in the photo roll, but rather are stored on a HIPAA compliant Google cloud platform and login with email, Apple ID and biometrics further enhance security.

Fields for patient demographic, diagnosis, procedure, and other notes can be entered, sorted, and shared extremely easily. Clinicians can even import older photos from their gallery into ImageAssist for easier organization in one location. Export is seamless to email or cloud location and an automatic file-naming feature labels the JPG file with name, DOB and date of encounter for easy sorting and identification.

Through a partnership with the Brock Family Center for Applied Innovation and Technology at Vanderbilt University Medical Center, the startup, ImageAssist, INC., was incorporated in September of 2024 and continues to nurture the team's growth.

Features coming soon include a teams account to allow group practices seamless and secure access to the same set of patient records and a web and Android-compatible platform for more robust organization and viewing of photos. Additionally, the team can integrate into several EMR's and are adding more in step with clinician demand.

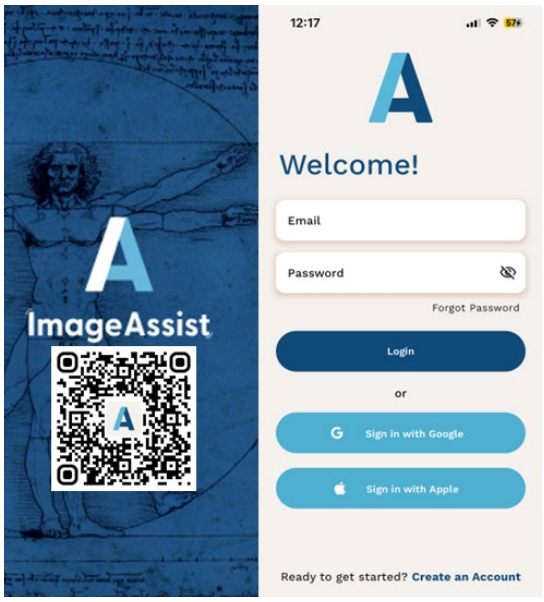

Figure 2

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Disclaimer: Dr Golinko is Founder & CEO of ImageAssist, INC. For information, contact Michael.golinko@vumc.org

HUMANITARIAN MISSIONS

"Providing care in low and middle-income countries is a truly remarkable experience..."

SCOTT P. BARTLETT
UNITED STATES

CRANIOFACIAL SURGERY IN POLAND: A 38 YEAR ODYSSEY

Providing care in low and middle-income countries is a truly remarkable experience, impacting not only the local community of patients and surgeons, but the provider as well. Since 1986, I have been working as a volunteer consultant at University Children's Hospital in Krakow, Poland, formerly known as the Polish American Children's Hospital. This hospital was enlarged with the assistance of Project Hope, as well as funds from the United States Aid to International Development (USAID). In the early years of my experience, all activity was under Project Hope, but more recently I have been working as a sole provider with support from The Children's Hospital of Philadelphia, University of Pennsylvania, and Penn Center for Human Appearance.

When I first visited the Polish American Children's Hospital, I realized that the quality of this institution was such that complex craniofacial care could be performed there. It was a true tertiary hospital that could do large surgical procedures in children safely as evidenced by a robust cardiac surgery program that had been founded and supported by Project Hope. When we first started, I did small procedures such as skin grafts and burn reconstructions, and then graduated to doing more complicated procedures and eventually craniofacial procedures beginning in the mid-90s. Part of this effort involved procuring

An infant with Crouzon Syndrome being evaluated.

the necessary materials, such as distractors and plates, which were made available by recycling our own devices from Philadelphia and getting some generous support from industry donations. Over the course of 38 years, I have been able to perform countless craniofacial procedures including cranial vault reshaping, midface advancement, and even hypertelorism, having never had a major complication or death. I am proud of the fact that we have been able to train the local surgeons in many of these techniques. Currently, they are comfortable with cranial vault

procedures, but leave the more complicated undertakings such as hypertelorism and midface advancement to the visits I make once or twice each year.

Our typical week in Krakow involves a day of seeing patients, prioritizing their care, and working for the next four days in the operating room. If we are lucky, we will have two operating rooms going simultaneously. At present, I am joined by our Penn/CHOP craniofacial fellows at least annually, which is an incredible experience for them as we often see untreated pathologies that we would never have seen in the more developed world. We keep track of our patients with photographs and PowerPoint documentation so that we can refer back to these in the years ahead.

My goal for the future is to continue supporting this program with the expectation it will become truly independent and function entirely without the need for consultants such as myself in the years ahead.

A Pfeiffer patient pre-operatively with Dr. Bartlett.

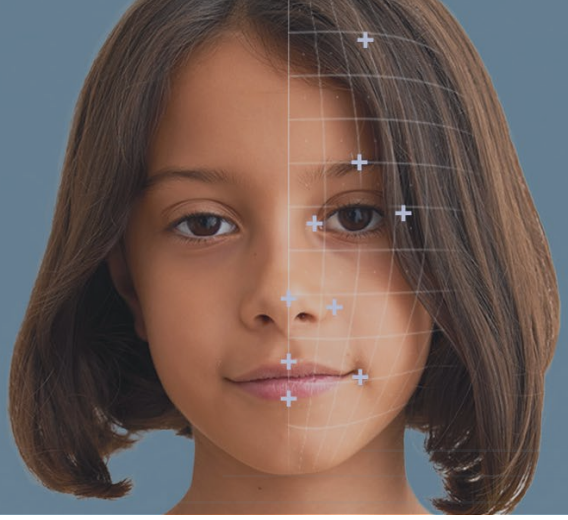
A halo distractor and patient at the end of surgery (Lefort II).

Dr. Bartlett checking patients after surgery in the ICU.

The University Children's Hospital, Krakow, Poland

A teenage girl with Crouzon Syndrome pre- and post-midface advancement via distraction.

BECOME AN ISCFS MEMBER



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NEUROSURGERY CONCEPTS

SUSAN M. GOOBIE
UNITED STATES

MARK R. PROCTOR
UNITED STATES

Venous air embolism (VAE) is a potentially serious and life-threatening complication that many craniofacial surgeons have not encountered, but once you do it is an unforgettable experience. The sequela can range from nothing more than the subjective sounds of turbulence on a precordial Doppler (Grade 1), which may go unnoticed, all the way to complete cardiovascular collapse and death (Grade 4) if not recognized and treated in a timely manner. As such, it is something all craniofacial surgeons should not only be aware of but should actively prevent and be prepared to manage.

A VAE begins with the entrainment of air/air bubbles into the patient's venous system (usually via surgically exposed venous sinuses) travelling to the right side of the heart, essentially preventing the normal circulation of blood due to a 'mechanical' obstruction. The blood can enter either through veins or venous channels in the bones, but not on the arterial side where the pressures are much higher. Risk factors for this phenomenon include operating in regions of the body that are elevated above the heart, operating in the setting of blood loss and hypovolemia where central venous pressures are low, and operating around enlarged exposed area of bone. As such, it is no surprise that our craniofacial patients are especially susceptible.

In the world of craniofacial surgery, cases of clinically significant air embolism have mostly been described in cranial vault reconstructions. However, it has also been reported in endoscopic minimally invasive cases. Many centers routinely monitor for a VEA in high-risk cases by using a precordial Doppler placed on the chest over the right side of the heart. In one study, 82% of children undergoing open craniosynostosis repair had a VAE detected by Doppler.

VAE awareness and prevention is the first step. Preventative measures are both surgery and anesthesia related. These include avoiding operating on a patient in the sitting position or even in reverse Trendelenburg; head above the heart, controlling venous bleeding with meticulous hemostasis, and avoiding hypovolemia. As always, ongoing surgeon-anesthesia communication is key and can lead to early detection before serious sequela. The benefit of early detection is that it can allow for corrective maneuvers, including flooding the surgical field with saline,

intravenous fluids to treat hypovolemia, and other more invasive maneuvers if there are changes of substantial clinical significance. These may include more aggressive control of bleeding, hydration with colloids or blood transfusion, vasopressors to support the circulation, active aspiration of air from a central line if available, or even cardiopulmonary resuscitation (CPR) and extracorporeal mechanical oxygenation (ECMO).

In order of clinical severity:
A grade 1 VAE is defined as a subjective millwheel murmur heard as turbulent flow detected during systole.

- A grade 2 VAE is defined as a decrease/loss of the expired end tidal cardon dioxide measurement due to obstruction of flow in the pulmonary vasculature and failure of the lungs to clear CO2.
- A grade 3 VAE is defined as tachycardia and hypotension.
- A grade 4 VAE is the most serious with complete cardiovascular collapse.

In order to prevent a venous air embolism, the surgeon must first be aware of it as a condition. At our institution, the use of precordial Doppler is routine during neurosurgical procedures. "Controlled hypotension" should be avoided, as decreased venous pressures make air entry into the venous system more likely to occur. There should always be saline available on the field so that if air is detected it can be covered with wet towels. If the head is elevated, lowering it may also decrease the likelihood that air entrains into the venous system. It should be noted that this phenomenon can also occur in adults and is one reason that the sitting position has somewhat fallen out of favor over time. When the head is that far elevated above the heart, the chance of air entering the venous system is much higher. It is also routine to place a CVL when doing cases in the sitting position for the principal reason of removing air from the right side of the heart.

"As always, ongoing surgeon–anesthesia communication is key and can lead to early detection before serious sequela."

Most cases of air embolism subjectively detected on Doppler (Grade 1) will not progress in severity and resolve spontaneously. Interestingly, the Doppler is so sensitive that even the injection of IV fluids can introduce small bubbles causing turbulent flow and mimicking the sound of a VAE, so as always, good communication between the anesthesia team and surgical team is necessary. If turbulent flow is heard on Doppler, the anesthesia team can immediately check the end tidal CO2 trace to determine if this is in fact a VAE or was simply due to an IV fluid injection. If a VAE is suspected, the first surgical maneuvers are to control the bleeding, flood the field with saline and cover with wet sponges until more information is gained. The anesthesiologist should immediately provide 100% oxygen, call for help, and actively treat hemodynamic changes with fluids and vasopressors and/or call a code. Management depends on the grade and severity. If a simple Grade 1 VAE is suspected, i.e., signs limited to transient Doppler turbulent flow, surgery can be continued. It might be advisable to give additional IV hydration and keep the field moist as preventative measures if turbulence is heard on Doppler. If the air embolism is a Grade 2 or 3, i.e., has led to a drop in ET CO2 and / or hemodynamic changes, surgery must be paused. The surgical field should be flooded while hemostasis is maintained and intravenous fluid plus vasopressors administered. If there appears to be clinically significant hemodynamic compromise, air may need to be actively removed from the right atrium if a central line is in place. Epinephrine and high-quality CPR should be provided immediately. At our institution, we did have one child who required ECMO nearly two decades ago for a life-threatening venous air embolism. The child ultimately did well, but only thanks to the ability of the operating room team to actively manage the cardiovascular collapse providing high

quality CPR while waiting for stabilization by the EMCO team.

Venous air embolism is not going to be a problem for most skilled craniofacial surgeons in their patient population, although clinically silent events are much more common than most surgeons realize. Familiarity with the phenomenon, how to avoid it, and how to react, really are essential for the safety of our patients. Awareness, using precordial Doppler, providing good surgical hemostasis, avoiding hypovolemia, knowledge of emergency responses including flooding the surgical field with saline, and in the most extreme cases, providing cardiovascular support, are tools you and the operating team will hopefully never require, but will be glad you knew about if the situation ever arises.

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ISCFS NEWSLETTER

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JULY 2025

ORTHODONTIC COLUMN

THE CRITICAL ROLE OF ORTHODONTICS IN THE SURGICAL REPOSITIONING OF THE PREMAXILLA WITH ALVEOLAR BONE GRAFTING IN A PATIENT WITH BCLP

TIAGO TURRI DE CASTRO RIBEIRO
BRAZIL

CLÁUDIA RESENDE LEAL
BRAZIL

INTRODUCTION

The rehabilitation of patients with bilateral cleft lip and palate (BCLP) is challenging and sometimes controversial. Occasionally, the magnitude of premaxillary protrusion and downward displacement and an extensive oronasal fistula preclude the performance of alveolar bone grafting (ABG) alone or pre-ABG orthodontic treatment. In such cases, surgical repositioning of the premaxilla (SRP) is necessary. Although staged ABG has been advocated by some authors [1], our results with the combination of SPR and ABG have been successful and have contributed to the overall comprehensive orthodontic treatment.

ORTHODONTIC MANAGEMENT

A 7-year-old male patient with BCLP in the early transitional stage of mixed dentition and with an adequate transverse maxillary relationship was evaluated at the orthodontics department of Hospital for Rehabilitation of Craniofacial Anomalies at the University of São Paulo (HRAC-USP). Significant premaxillary protrusion and downward displacement were observed ***(Figures 1a, b, c, d and e)***.

Additionally, an extensive oronasal fistula was present between the premaxilla and the maxillary segments, rendering alveolar bone grafting unfeasible. ***(Figure 1e)***

Figure 1: (a, b, c and d), Initial photographs taken at 7 years of age showing significant projection of the premaxilla, a factor highly detrimental to the patient's esthetics and function. (e), Occlusal photograph highlighting an extensive oronasal fistula located between the maxillary segments.

The periapical radiographs reveal an extensive bilateral bone defect, while the lateral radiograph demonstrates significant premaxillary protrusion and downward displacement, a factor highly detrimental to the patient's esthetics and function. ***(Figures 2a, b and c).***

The literature has highlighted the importance of early intervention in patients indicated for SRP+ABG. Patients who underwent surgery between 8 and 11 years of age achieved better outcomes and experienced fewer complications. Moreover, maxillary growth did not appear to be impaired when surgery was performed within this age range.[2,3] Accordingly, we initiated surgical orthodontic treatment at this time by bonding brackets and placing passive rectangular stainless steel archwires (0.018" x 0.025") on the bilateral maxillary posterior deciduous teeth and the premaxillary teeth (right permanent central incisor and left deciduous central incisor). ***(Figure 3a)*** An acrylic occlusal splint was fabricated during a mock surgery to serve as a reference for the surgeon during SRP and to stabilize the osteotomized premaxilla. The splint was maintained for three months post-operatively. ***(Figures 3b, c and d)*** At this follow-up assessment, we found that SRP+ABG had been successful, resulting in adequate bone regeneration and isolation of the oronasal fistula, as well as a stable and properly positioned premaxilla. ***(Figures 3d and e).***

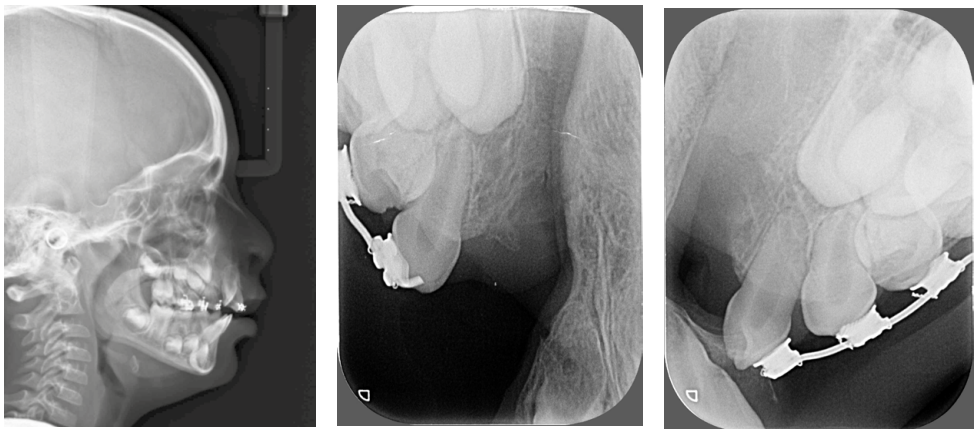

Figure 2: (a, b and c), Periapical radiographs revealing an extensive bilateral bone defect, while lateral cephalometric radiograph certified significant premaxillary protrusion and downward displacement.

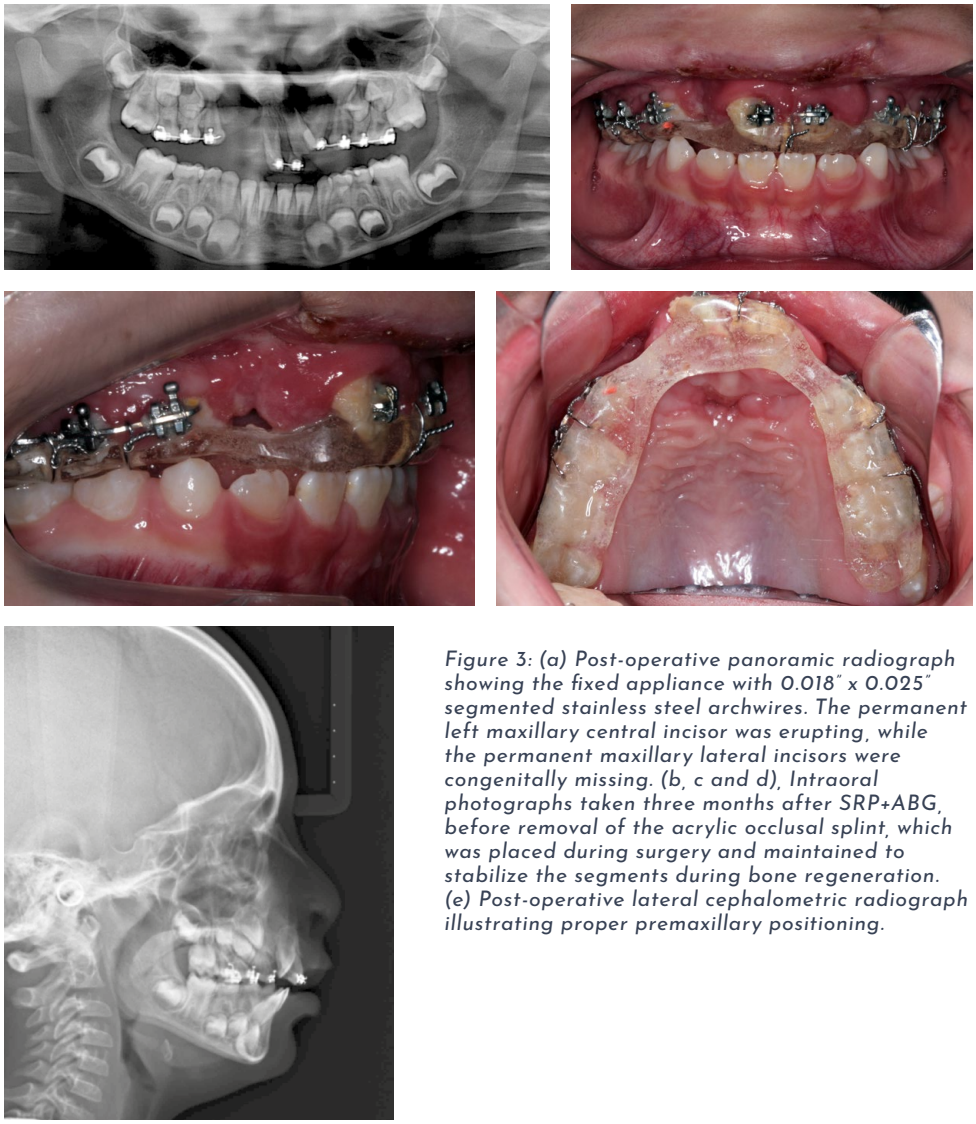

Figure 3: (a) Post-operative panoramic radiograph showing the fixed appliance with 0.018" x 0.025" segmented stainless steel archwires. The permanent left maxillary central incisor was erupting, while the permanent maxillary lateral incisors were congenitally missing. (b, c and d), Intraoral photographs taken three months after SRP+ABG, before removal of the acrylic occlusal splint, which was placed during surgery and maintained to stabilize the segments during bone regeneration. (e) Post-operative lateral cephalometric radiograph illustrating proper premaxillary positioning.

Six months after SRP+ABG, the permanent left maxillary central incisor had erupted physiologically, allowing for orthodontic bracket bonding. Consequently, orthodontic movement was initiated to correct rotation of the maxillary central incisors. ***(Figures 4a and b)*** After six months, the brackets were de-bonded, a retainer was placed on the maxillary central incisors, and the patient's craniofacial growth and dental development continued to be monitored. ***(Figure 4c)***

At 12 years of age, the patient exhibited a fully developed permanent dentition, enabling the initiation of corrective orthodontic treatment. Panoramic and periapical radiographs confirmed the leveling of maxillary occlusal plane, adequate bone formation at the grafted site, and the favorable condition of the teeth adjacent to the cleft. ***(Figures 5a, b and c)*** The patient, aged 15 years, was in the final phase of corrective orthodontic treatment. The prosthetic spaces in the regions of the permanent maxillary canines were being maintained for future rehabilitation because they had erupted into the position of the permanent maxillary lateral incisors.

DISCUSSION

Patients with BCLP present a challenge in managing malpositioned premaxillae. Various treatment protocols for protruded and downwardly displaced premaxillae have been described, including SRP+ABG [3-5,] the approach we employ. Orthodontic intrusion has been suggested for premaxillary vertical excess, depending on patient age and defect severity; however, its efficacy remain uncertain. [6-9]

Severe premaxillary protrusion and downward displacement requiring SRP are rare. [8,10,11] Although infrequent, when indicated, SRP improves premaxillary esthetics and function while reducing the alveolar cleft defect, facilitating concurrent ABG. [12] This technique can be performed in the deciduous, mixed or permanent dentition, with better outcomes in younger patients. [2,3,5]

In most cases, patients with BCLP present with maxillary constriction, requiring pre-operative orthodontic expansion to improve surgical access to the cleft and enable repositioning of the premaxilla. [5] Approximately four months after rapid maxillary expansion, the expander should be replaced with a trans-palatal arch with bilateral anterior extensions to maintain transverse stability and prevent relapse. However, in the case reported, this step was not necessary.

The surgical splint can be manufactured in various ways, depending on the preferences of the surgeon and the team. In this specific case, the acrylic occlusal splint was fabricated using the patient's pre-operative plaster models after a mock

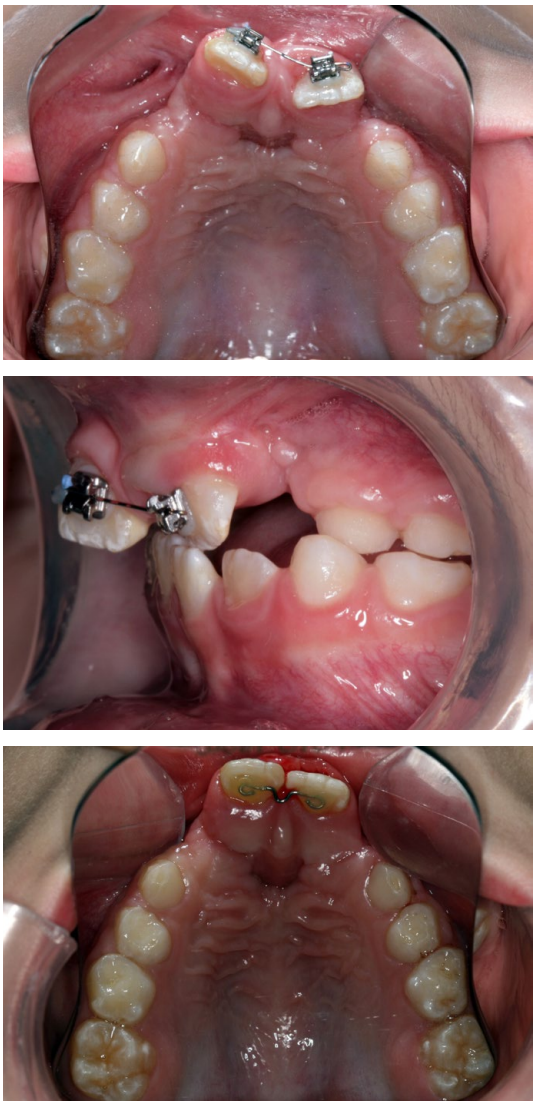

Figure 4: (a and b) Orthodontic movement was initiated six months after SRP+ABG to correct the rotation of the maxillary central incisors and protrusion of the maxillary left central incisor. (c) Orthodontic retention was bonded immediately after the the incisor position was corrected.ng.

Figure 5: (a, b and c) Panoramic and periapical radiographs taken at 12 years of age demonstrated a fully developed permanent dentition, thereby permitting the initiation of corrective orthodontic treatment. At that time, the maxillary occlusal plane was leveled, and the risks of bone dehiscence in the cleft areas was reduced.

surgery. Although this splint could also have been fabricated virtually – using data from cone beam computed tomography (CBCT), digital models, and 3D printing – this method is more expensive and was unavailable at our facility at that time.

Different methods are also used secure surgical splints during SRP+ABG. In our approach, we preferred to tie the splint to the 0.018" x 0.025" segmented stainless steel archwires using steel ligatures, as this technique ensures a significantly stable fit and offers advantages over the cementation technique, such as easier cleaning and removal. We removed the acrylic occlusal splint 3 months after surgery, as this is the time required for the regeneration of the grafted sites and the vomer osteotomy. This bone regeneration was verified by the absence of premaxillary mobility as well as by post-operative radiographic images that illustrated completely filled bone septa. ***(Figures 5a, b and c)***

The orthodontic procedure aimed at correcting the rotation of the maxillary central incisors and the uncrossing of the left maxillary central incisor ***(Figures 4a and b)*** was planned to be swift, improving both smile esthetics and occlusal function while preventing occlusal trauma to the left maxillary central incisor. After debonding, a retainer was bonded to the maxillary central incisors. ***(Figure 4 c)*** This retention is essential due to the potential for orthodontic relapse in the cleft areas. The patient's craniofacial growth and dental development were monitored until he completed his permanent dentition, and only then was corrective orthodontic treatment initiated, thereby avoiding an undue burden of care. [12]

Conventional orthodontic treatment with fixed appliances became feasible once there was no longer any restriction on orthodontic movement in the cleft areas. [12] At 15 years of age, the patient exhibited a good sagittal relationship between the basal bone structures ***(Figures 6a and b)***, confirming that SRP+ABG performed within the recommended age range by our team aligns with the literature [2] and did not restrict maxillary growth. The patient is currently in the final stage of orthodontic treatment, with the permanent maxillary canines being positioned in the sites of congenital maxillary lateral incisors missing, the permanent maxillary first molars in Class I occlusion, and the maxillary

deciduous canines maintaining the prosthetic spaces for future rehabilitation, most likely with dental implants. ***(Figures 6c, d, e and f)***

CONCLUSION

SRP+ABG is a reliable approach with excellent esthetic and functional outcomes for patients with BCLP and a significantly protruded and mal-positioned premaxilla, rendering pre-ABG orthodontic treatment unfeasible, provided the described principles are followed.

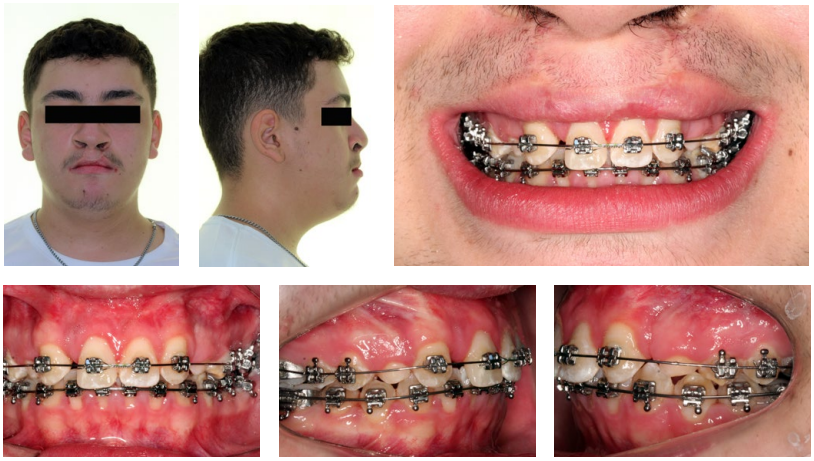

Figure 6: (a, b, c, d, e and f), The patient, aged 15 years, was in the final phase of corrective orthodontic treatment. The permanent maxillary canines had erupted into the position of the permanent maxillary lateral incisors, thereby the prosthetic space for future rehabilitation was being maintained.

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YOUNG SURGEONS' UPDATE

"We believe there is still more to learn, and your input is vital to ensuring this data reflects global best practices."

BEN MASSENBURG
UNITED STATES

ENCOURAGING GROWTH AND COLLABORATION IN THE ISCFS RESIDENT AND FELLOW COMMUNITY

The International Society of Craniofacial Surgery (ISCFS) continues to grow and evolve, with exciting new opportunities for engagement among our residents and fellows. During the 2023 Seattle ISCFS Congress, we proudly introduced a new Resident and Fellow Membership category designed to foster involvement by the next generation of craniofacial surgeons. Since its launch, we've welcomed 11 members into this growing community – a start, but there's still room for expansion.

As craniofacial surgeons, we understand that mentorship, collaboration, and shared learning are vital to advancing our field. By encouraging your residents, registrars, and fellows to join ISCFS, we can create a more connected and engaged network of emerging leaders in craniofacial surgery. Membership provides access to valuable resources, educational content, and networking opportunities – all designed to support trainees as they embark on their careers.

DRIVING INNOVATION THROUGH COLLABORATION

One of the most exciting opportunities for residents and fellows is participation in collaborative research initiatives. These projects not only expand knowledge, but also connect young surgeons with established leaders in the field.

A recent example is the Craniofacial Distraction Survey, led by our team at UC San Diego. This ongoing initiative aims to gather insights into global trends in the use of distraction techniques for craniosynostosis. To date, 77 responses have been collected from craniofacial surgeons worldwide, providing valuable data on current practices.

Notably, the survey reveals that 84% of respondent craniofacial surgeons use distraction

osteogenesis as part of their treatment approach for craniosynostosis. This technique is most commonly employed in cases of multi-suture or syndromic craniosynostosis, with unilateral coronal and unilateral lambdoid as the most diagnoses for distraction in single suture craniosynostosis.

We believe there is still more to learn, and your input is vital to ensuring this data reflects global best practices. If you have not yet contributed to the survey, we encourage you to participate and share your insights. To join this important research initiative, please use the following link: https://go.ucsd.edu/41qsjxx or scan this QR code.

THE VALUE OF RESIDENT AND FELLOW MEMBERSHIP

By joining ISCFS, resident and fellow members gain:

- **Access to Leading Experts:** Engage with top craniofacial surgeons through webinars, mentorship opportunities, fellowships and collaborative research.
- **Opportunities to Contribute:** Share your insights in the Young Surgeons' Corner of our newsletter or participate in educational video projects.
- **International Collaboration:** Connect with peers and mentors across the globe, creating opportunities to learn and innovate together.
- **Access to the Website Members' Area:** Password protected access to past webinars and other member benefits.

The ISCFS Young Surgeons' Committee is dedicated to enhancing this experience by expanding educational content, fostering mentorship connections, and promoting meaningful collaboration between trainees and established surgeons. By encouraging our trainees to join, we are investing in the future of craniofacial surgery – a future filled with innovation, compassion, and improved patient care.

For more information or to encourage your trainees to join ISCFS, please visit the membership area of our website, https://www.iscfs.org/application-for-membership-resident-registrar-fellow/ or contact me directly at bmassenburg@health.ucsd.edu

We look forward to welcoming more residents and fellows to our great organization and continuing to build a strong, collaborative future in craniofacial surgery.

EVENT CALENDAR

AMERICAN CLEFT PALATE-CRANIOFACIAL ASSOCIATION 2025 ANNUAL MEETING

Location: The Westin Rancho Mirage Golf Resort & Spa
Palm Springs, California
Date: May 6–10, 2025

with **ANNUAL MEETING OF AMERICAN SOCIETY OF CRANIOFACIAL SURGEONS**

SAVE THE DATE 21ST ISCFS CONGRESS

Location: Shangri-La Jing An, Shanghai, China
Date: October 27–30, 2025
Website: www.iscfs.org

EUROPEAN ASSOCIATION FOR CRANIO MAXILLO FACIAL SURGERY 28TH CONGRESS

Location: Athens, Greece
Date: September 5-18, 2026
Website: www.eacmfs.org/congress/future-congresses/

ISCFS 2025

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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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Dr. Xiongzheng Mu and Dr. Xudong Wang invite you to Shanghai, China for the 21st Congress of the ISCFS on October 27-30, 2025.

Dr. Xiongzheng Mu
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Dr. Xudong Wang
Assistant Dean, Shanghai 9th People's Hospital

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