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The year 1967 was marked by an extraordinary medical event that hit the headlines and was aired on every radio and TV station all over the world. On December 3rd, a newscast in South Africa announced that Louis Washkansky, a 55-year old dentist who suffered from an incurable heart disease, was about to receive the heart from a 25-year old woman who had been killed in a car accident.



*Ricardo Cruz*

Dr. Christiaan Barnard, a cardiovascular surgeon in Cape Town, South Africa, 48 years old at that time, was responsible for this historic surgery that lasted around five hours, performing the first heart transplant between human beings.

Within a few days, Louis Washkansky showed signs of transplant rejection, had a severe lung infection and died 18 days afterwards, but from that day on several heart transplants were performed in the United States, France, Canada and Brazil. The second patient to receive a heart, Philip Blaiberg, survived for 18 months (not 18 days).

On May 26, 1968, Brazilian surgeon Euryclides de Jesus Zerbini, an experienced 56-year-old cardiovascular surgeon, and his team, performed the first heart transplant in Latin America, at Hospital de Clínicas de São Paulo, and the 17th in the world. Brazil was therefore the third country to perform this surgery. The recipient was João Ferreira da Cunha, a 32-year-old herdsman from the state of Mato Grosso, who suffered from dilated cardiomyopathy, probably of chagasic etiology, having survived for 27 days.

This was quite an achievement for modern Brazilian Medicine.

In 1967, I was only 13 years old and was totally amazed by newspaper and magazine headlines about the heart transplant performed by Dr. Barnard. I cut out dozens of pictures and hung them on the walls of my bedroom. At that time I dreamt of becoming a physician, a surgeon...

What I did not know and would find out about only ten years later is that in that same year Paul Tessier, just like Christiaan Barnard, entered the history of Medicine as the founder of a new surgical specialty that would also intrigue, challenge and move specialists all over the world.

The works conducted by Tessier did not get any media coverage, contrary to the heart transplant performed by Dr. Barnard, but a scientific revolution coincidentally integrated heart and face surgical techniques in different continents that year.

In 1977, I told Dr. Victor de Araújo Lima, a renowned specialist in Head and Neck Surgery, in Rio de Janeiro, that I wanted to specialize in reconstructive facial surgery. He suggested I talk to a famous surgeon in Niterói, who went by the name of Edgard Alves Costa, had great expertise in maxillofacial surgery, and also acted as a consultant with Dr. Ivo Pitanguy's clinic.



*Edgard, Zanini and Psillakis*

I was warmly welcomed by Dr. Edgard, and thanks to his generosity, I was given the opportunity to work with him from 1979 to 1981, taking part in over 3,000 surgeries. That was the time when maxillofacial surgery began to gain momentum in Brazil, allowing me to attend several of the first scientific meetings organized by those who were to be the Brazilian pioneers in this kind of surgery.

In 1986, I helped Dr. Edgard Costa write some chapters for his book on craniomaxillofacial surgery, to be edited by Psillakis, Zanini, Mélega and himself. I was surprised and immensely flattered at discovering they had conceded me a co-authorship for the book. Today, a bit more than 15 years after the publication of the book, I am glad to pay them a tribute. This was a dream I had been cherishing for a long time - the whys and wherefores of my notetaking.

With time, rejection problems were controlled, and nowadays, hundreds of people all around the world, both men and women, lead a basically normal life after undergoing a heart transplant. Likewise, with the development of craniofacial surgery, thousands of people have an essentially normal life after having their face reconstructed.

This journal tries to reveal the charm of a fascinating history, divided into five chapters, including the participation of three excellent Brazilian surgeons. Jorge Psillakis, Silvio Zanini, and Edgard Costa, just as Dr. Zerbini, dared to develop a medical specialty in Brazil that requires high technology combined with great dedication and genuine talent: Craniomaxillofacial Surgery.

I dedicate this Journal to all Brazilian craniofacial surgeons, especially to those who have written the history of craniofacial surgery in Brazil with their talent and boldness. This is a history that deserves to be known in detail by each of us so that we believe a man's dreams may all come true.

*Ricardo Lopes da Cruz*

President of the Brazilian Society of Craniomaxillofacial Surgery



# E D I T O R I A L

**T**he *Brazilian Journal of Craniomaxillofacial Surgery* is immensely pleased to publish this compilation about the history of craniomaxillofacial surgery in Brazil and in the world, which is most times based on personal experiences.

The performance of such compilation by Dr. Ricardo Lopes da Cruz makes it even more special, mainly in this moment of consolidation of our Journal, our Society, and our medical specialty as well. We should not forget, however, that this would not have been possible without the help from many of the Brazilian pioneers in this field, who have filled us in on the necessary details.

This issue fulfills one of the primary aims of the Journal – to encourage the development of craniomaxillofacial surgery. History undoubtedly plays a pivotal role in this purpose, and, if narrated by those who actually experienced it, its effect may be the same as that felt by Ricardo, when he followed Dr. Barnard's breakthroughs; or that experienced by myself in my fifth year of medical school, when I was introduced to craniomaxillofacial surgery by another legend, Dr. Ian Jackson, and regarded it as the "promised land" for professional achievement.

Craniomaxillofacial surgery is fascinating, and so is its history. Enjoy this report, which I could not help reading first.

Marcus Vinicius Martins Collares, MD, PhD  
Editor

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# THE HISTORY OF CRANIOFACIAL SURGERY IN THE WORLD

Ricardo Lopes da Cruz, MD, TCBC<sup>1</sup>

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**C**raniomaxillofacial surgery, or simply craniofacial surgery, originated from several surgical specialties that developed simultaneously, such as neurosurgery, plastic surgery, head and neck surgery, otorhinolaryngology, and ophthalmology. From a semantic point of view, "craniomaxillofacial" encompasses surgical interventions carried out in the face or in the craniofacial transition through combined access routes that invariably include the intracranial route.

Craniomaxillofacial surgery generically includes the treatment of the following conditions:

1) **congenital deformities** that have a great impact on the craniofacial skeleton, as observed in the practice of pediatric plastic surgery, in frequent syndromes such as hemicraniofacial microsomia, Pierre-Robin, Treacher-Collins (mandibulofacial dysostosis), craniostenoses affecting the orbit (plagiocephaly, trigonocephaly, brachycephaly), and craniofaciostenoses (Apert, Crouzon);

2) **tumors involving the craniofacial transition**, which have made skull base surgery become a very important subspecialty within neurosurgery and head and neck surgery;

3) **posttraumatic deformities**, mainly those affecting the mid and upper third of the face (examples are craniofacial fractures affecting the skull base, such as nasoethmoidal and naso-orbital fractures);

4) **deformities secondary to facial fissures**, ranging from the frequent cases of cleft lip and palate up to (and most importantly) rare fissures (as those classified by Tessier) affecting or not the skull, due to the skeletal compromise that is always present;

5) **maxillary deformities**, such as those observed in dentoskeletal structures, which are common indications for **orthognathic surgery**.

The present issue of the *Brazilian Journal of Craniomaxillofacial Surgery* is aimed at reviewing the highlights of this specialty along the years since its beginning, in the early 70s, up to the current time. In spite of the obvious importance that maxillofacial surgery has exerted since as early as the 19th century, we will concentrate on the quick development and mostly on the great advancements that reconstructive surgery has experienced since World War I (already in the 20th century).

## EARLY REPORTS

The first mandibular osteotomy procedure was carried out by Hüllihen (1847), in West Virginia, United States, for the treatment of anterior open bite, which developed in a 20-year old female patient due to a cervicofacial bridle secondary to a burn episode that had taken place during her childhood. Simon P. Hüllihen, MD, DDS (1810-1857) was the first surgeon to carry out an oral and maxillofacial surgery, in Wheeling. He was one of the first surgeons who advocated the importance of multidisciplinary knowledge on the part of physicians who wanted to dedicate their lives to dental, maxillary, plastic, ophthalmologic, and head and neck oncologic surgery.

In 1867, in Boston, Cheever first performed a maxillary osteotomy with the aim of obtaining access to the resection of a tumor. His technical description was very similar to that found in the fracture that would later be described by René Le Fort, in his classical 1901 study, in which he focuses on upper maxillary fractures. Therefore, maxillary surgery is considered to have started in the mid 19th century, and the so called Le Fort I osteotomies had already been described by Von Langenbeck in Europe in



*Dr. Simon P. Hüllihen  
(1810-1857)*

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1859, and by Choever in the United States in 1867. Later on, the first surgeon to use this technique for the correction of malocclusion was Wassmund, in 1927.

## THE 20TH CENTURY

The beginning of the 20th century was marked by the appearance of one of the most important exponents of facial reconstructive surgery. His name was **Vilray Papin Blair**, and for several years he was considered the most important plastic surgeon in the United States. Blair was born in St. Louis, Missouri, on June 15th, 1871, and graduated in Medicine from the St. Louis Medical College (1893). In that time, plastic surgery was not identified as an independent field, but Blair developed several studies on mandibular osteotomies, such as those reported in 1909, with the use of Gigli's saw. His first teaching activity was as an instructor in the discipline of Practical Anatomy at the University of Washington, where he formed the basis of the highly creative surgical methods he developed, and which made him immortal.

On August 1st, 1914, the tensions found in the European society culminated in a war. World War I tragically marked the beginning of the 20th century and established a correlation of forces. If this war were considered an imperialist war, it would certainly be determined by the interests of great industrial powers.

The consideration of plastic surgery as an organized discipline originated during World War I, when battle fronts in Europe started to face a high, unprecedented number of severe war wounds. Facial injuries resulted in several problems, such as difficulty in eating, speaking, or even in using anesthetic methods. In addition, severe esthetic deformities required the creation of specific units devoted to the

treatment of this group of patients.

Vilray Blair, from St. Louis, was a general surgeon greatly interested in orthopedic procedures and with a national reputation in the fields of facial, oral and maxillary surgery. In 1909, he had already published an article in the *Journal of the*



Dr. Vilray Papin Blair  
(1871-1955)

*American Medical Association*, in which he described his interest in reconstructive mandibular surgery, and

soon after (1912) he published a book entitled *Surgery and Diseases of the Mouth and Jaws*. Due to these reasons, Dr. Blair was chosen to be the head of the US Army plastic and maxillofacial surgery team during World War I.

Blair thought that the presence of dental surgeons was extremely important, due to their knowledge and expertise, in order to cooperate with general surgeons in the treatment of soldiers presenting maxillary fractures. Therefore, he chose **Robert Henry Ivy**, from Philadelphia, graduated both in Medicine and Dentistry, who also dedicated himself to plastic and maxillofacial surgery, to be the second greatest authority in the group that was sent to Europe when the United States decided to make part of the conflict, in 1917. At that moment, general surgery was divided into several surgical sections, such as ophthalmology, otorhinolaryngology, plastic surgery, and head and neck surgery.



Robert Henry Ivy

Ivy was born in England in 1881, and traveled to the United States in 1898, at 17 years of age. In the US, he immediately enrolled in the School of Dentistry at University of Pennsylvania. In 1901, the Pennsylvania General Hospital opened the first boarding school for dentists in the country, and Ivy decided to make part of

that group. Afterwards, he graduated in Medicine (in 1907) and worked as a surgery resident in 1910. In 1918, he wrote: "While the principles of treatment of fractures of the jaws were well understood 30 years ago, and fixation by apparatus applied to the teeth resulted in successful restoration of occlusion, there have gradually been developed simplified methods of fixation which required less technical work and which assured more rapid results, with greater comfort to the patient."

Counting on Ivy as his immediate assistant, Blair established a group of military specialists in plastic surgery, including 15 general surgeons experienced in head and neck surgery, and 15 dental surgeons experienced in oral and maxillary traumatology, who worked together in specialized reconstructive plastic surgery and head and neck surgery centers during the whole war period.

Medical officers coming from several allied countries were intensively trained at the reconstructive surgery reference centers located in the United States,



England, and France. Ivy was put in charge of the direction of Walter Reed Hospital, and posteriorly he was invited to be a professor of Plastic Surgery at a Pennsylvanian university. In 1954, Robert Ivy was honored with the title of PhD in Science by the same university.

Blair had a great admiration for Gilmer, from Illinois, who had substantially contributed to the treatment of mandibular fractures in the end of the 19th century (about 1887). **Thomas Lewis Gilmer** was born in Lincoln County, Missouri, in February 1849, and his father was a physician. He studied both Medicine and Dentistry simultaneously. He graduated in Dentistry from the Missouri Dental College (Dental Department of Washington University) in St. Louis in 1881, and in Medicine from the St. Louis Medical College (where Blair would study later on) in 1885.



*Thomas L. Gilmer, MD, DDS, FACS (1849-1931)*

Gilmer (1849-1931) was a leading character in the development of oral surgery techniques. He worked at the Quincy College of Medicine (Illinois) and was one of the founders of the Northwestern University Dental School after he moved to Chicago, in 1889 (he also worked at the Chicago College of Dental Surgery). In the end of the 19th century, he studied intermaxillary fixation methods that could be used in the treatment of mandibular fractures with odontosyntheses. Blair referred to him as "one of the greatest dental surgeons" of that time.

Robert Ivy once wrote: "I benefited greatly in my earlier years from occasional contacts with this great pioneer and teacher in the field which has eventually blossomed into our modern specialty of plastic surgery."

In 1921, Blair worked on a summary of his vast experience in facial reconstructive surgery and published an important article entitled "Reconstructive surgery of the face". In the same year, Kostecka described a subcondylar osteotomy using Gigli's saw, which was an extremely popular technique in the beginning of orthognathic surgery. For many people, Blair was "the pioneering force for the establishment of the North-American society of plastic surgery." Dr. Vilray Papin Blair died on November 24th, 1955, at 84 years of age.

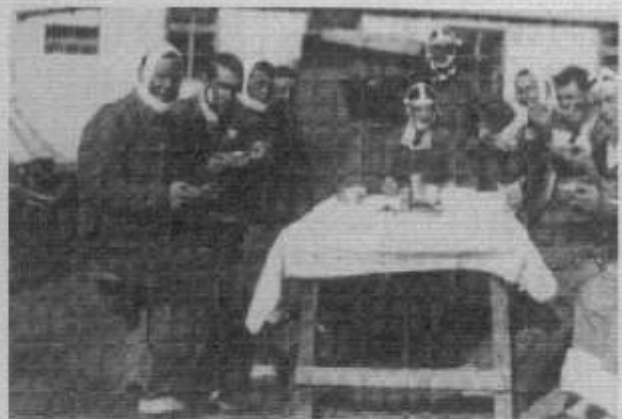
During the war, a dental surgeon who was unknown until then and who graduated from the Harvard

Dental School in 1905, called **Varaztad H. Kazanjian**, became nationally recognized due to his great experience with facial traumatology and with the confection of dental splints for maxillary immobilization. Dr. Kazanjian was born in Turkish Armenia in March 18th, 1879, and moved to the United States in October 1895, with 16 years of age, more precisely to the city of Worcester, Massachusetts.



*Varaztad H. Kazanjian (1879-1974)*

In 1905, Dr. Kazanjian graduated in Dentistry from the Harvard Dental School, and accepted an invitation to work as an assistant professor of Prosthetic Dentistry at the same university. Some reports state that his work at that university included the treatment of about 400 cases of maxillary fractures, in addition to the development of new surgical methods, e.g., immobilization with the use of odontosyntheses. Along his professional life, he became recognized as a specialist both in dental surgery with the use of prostheses and in reconstructive plastic surgery, and was therefore chosen to treat hundreds of disfigured soldiers during World War I.



*Kazanjian's patients*

In 1915, during World War I, Kazanjian was put in charge of the volunteer unit organized by Harvard University to work in association with the British expeditionary forces. After the war, in 1919, at 40 years of age, Dr. Kazanjian received military honors (Companion of the Order of Saint Michael and Saint George) and decided to go back to Boston, where he accepted the position of professor of Military Oral Surgery at the same university where he had graduated (Harvard Dental School). He graduated in Medicine



from the Harvard Medical School in 1921, and immediately became the head of the plastic surgery clinic at Massachusetts General Hospital. One year later (1922), he became a professor at the oral surgery clinic from the Harvard Medical School, and remained in this position for 20 years. In 1941, he became the first professor of Plastic Surgery at the Harvard Medical School.

Dr. Kazanjian died in October 19th, 1974, with 95 years of age. Dr. Converse said about him: "his kindness, warmth, and modesty are legendary."

In France, right before World War I, **Hippolyte Morestin** (1869-1919) was widely known in the field of reconstructive plastic surgery, especially facial and maxillary traumatology. Morestin, a native inhabitant from Martinica island, coordinated the activity of several war hospitals in France. One of the main centers for the treatment of wounded soldiers in Europe was the Val-de-Grace Military Hospital, in Paris.

Morestin was affected by tuberculosis right after his arrival in Paris. His premature death was caused by complications resulting from an epidemic of influenza that occurred during World War I.

About Morestin, Dr. Converse wrote: "Hippolyte Morestin was a precursor, in the true sense of the word, of the modern plastic surgeon. He published numerous papers on surgical anatomy, on surgical pathology, on techniques of abdominal surgery and surgery of the head and neck tumors during the first 10 years of his surgical career."



*Hippolyte Morestin (1869-1919)*

France had already been homeland to a renowned surgeon whose work on maxillary fractures became popular in the beginning of the 20th century. **René Le Fort** was born in 1869, in Lille, where he attended the Military School. With 19 years of age, he was admitted to a boarding school at Hôpitaux de Lille, and at 21 years of age, he got a PhD in Medicine, with a dissertation entitled *Topographie Crânio-Cérébrale: Applications Chirurgicales*. This way, he became the youngest surgeon to obtain such title in France.



*René Le Fort (1869-1951)*

René Le Fort continued his career of military surgeon by working at the famous military hospital called Val-de-Grace, in Paris, from 1898 on. However, he had another professional interest: teaching – and therefore he returned to Lille to work at a Medical School. His three famous studies on fractures of the upper maxilla were sequentially published in the editions of February, March and April 1901 in *Revue de Chirurgie*, and were developed when René Le Fort was only 31 years old. This studies confirmed the pioneering reports of Guérin (1866), who had originally described the transversal fracture of the lower maxilla, currently called Le Fort I fracture.

The following excerpt was translated by Paul Tessier into English and summarizes the original study by Le Fort: "Severe fractures of the face, far from presenting a fantasy which defies description, follow simple laws. They have common characteristics, and can be divided into a small number of well-defined types. An understanding of the possible lesions will facilitate research and aid in the precise diagnosis of fractures which have too often passed unperceived, to the detriment of patients and sometimes even of the surgeons."

When Le Fort returned to Lille, he got increasingly interested in orthopedic surgery and decided to become a specialist in this field. He published several studies in this area, and in 1912 he signed up to join the battle front in the Balkan War, a conflict in which France, Bulgaria, and Serbia became allies. Two years later, World War I would start, and here again Le Fort joined the battle front, according to historical reports. During this period, he got interested in thoracic surgery, and published a book entitled *Projectiles Enclosed in the Mediastinum* (1918). Le Fort was responsible for reorganizing and directing the Hôpital des Invalides at the end of the war, and returned to Lille in 1920 to become a professor of Pediatric Surgery and Orthopedics.

René Le Fort became a great specialist in bone tuberculosis, a disease that was spreading in France (it killed Morestin at 49 years of age) in the end of World War I (1919). In 1936, Le Fort was elected President of the French Society of Orthopedics, and he died at 82 years of age, in 1951, in his hometown, Lille.

"In many hundreds of hours spent assisting or watching Gillies in the operating room I never once saw him perform a hurried or rough movement. All the actions of his hands were consistently gentle, accurate and deft." **Harold Delf Gillies** is considered by many people, up to the present time, "the father of plastic surgery in the 20th century". Gillies was born in Dunedin, New Zealand, on June 17th, 1882, and studied Medicine at Cambridge University from 1901 on. Interestingly, one year before, Gillies had won the national cricket contest, and at three different times, he represented his university in golf championships. His graduate studies were carried out at St. Bartholomew's Hospital, in London, and finished in 1908. In 1910, he took a specialization course in the field of Otorhinolaryngology.



Harold Gillies (1882-1960)

It was not only in sports that Gillies showed a rare talent. He also proved to be a talented painter, and exercised his art since he was a youngster. His career as a painter culminated with an exhibit in 1948, at Foyale's Art Gallery. His strong talent for arts and the fact that he would later become an extraordinary

specialist in esthetic and reconstructive plastic surgery are probably not coincidental. His skillfulness and rare manual ability made him become a master in surgery, and his artistic sense helped him in the art of reconstructing faces that had been disfigured by the horrors of war.

Gillies was 32 years old when World War I emerged, and it was during this tragic period that he first got interested in plastic surgery. Gillies went to Paris to watch Morestin operate a patient presenting face cancer. The reconstructive procedure carried out by Morestin impressed Gillies in such a degree that the latter wrote: "I felt a tremendous urge to do something other than the surgery of destruction." After this, when he returned to his hometown, he joined the British Army Plastic Surgery Unit. Therefore, Hippolyte Morestin is considered to have exerted an extremely strong influence on Gillies's vocation and interest in reconstructive surgery.

In Great Britain, Gillies developed a work with war wounded patients at Queen Mary Hospital, in Sidcup, Kent. This hospital soon became the greatest European reference center in the field of facial reconstruction.



Gillies in the surgery room

Gillies established routines for several surgical procedures that were already being carried out, such as rhinoplasties, skin grafting techniques, and several facial reconstruction procedures. He is considered the creator of the discipline of Plastic Surgery, and in 1920 he published a book entitled *Plastic Surgery of the Face*, which presented the principles of modern plastic surgery. Harold Gillies died in London on September 10th, 1960.

Another important contemporary plastic surgeon was Sir **Archibald McIndoe**. Similarly to Gillies, McIndoe (Gillies's cousin) was born in Dunedin, New Zealand, on May 4th, 1900, and studied Medicine at Otago University. In 1924, McIndoe was the first surgeon in his country to be granted a fellowship to work at Mayo Clinic, in the United States, at the Service of Pathological Anatomy. He worked there until 1927 and became a great specialist in liver diseases.



Archibald McIndoe (1900-1960)

McIndoe went back to London in 1930 and, as suggested by Gillies, started to work as an assistant physician at the Department of Plastic Surgery of St. Bartholomew's Hospital. He dedicated himself to this specialty during the subsequent years. In 1938, McIndoe joined the Royal Air Force as an adviser of the plastic surgery team, and

worked hard with Harold Gillies during World War II, acquiring great experience in the field of reconstructive plastic surgery.

Sir Archibald McIndoe died on April 11th, 1960, some months before the death of Gillies, which would occur still in the same year (September).

Germany also prepared plastic surgery, maxillofacial surgery, and dental surgery teams during the war, aimed at treating soldiers with facial injuries. The Maxillofacial Surgery Unit was initially headed by Von Eiselsberg, a general surgeon from Vienna, and Hans Pichler (1887-1949).



Several personalities played extremely relevant roles in the field of maxillofacial traumatology in the 20s. August Lindemann, from Dusseldorf, made the indication of iliac bone grafts very popular in facial reconstruction. Martin Wassmund (1892-1956) became a great master of the specialty at that time, and was the one who carried out the first maxillary osteotomy (anterior segmental maxillary osteotomy) in 1927, for the correction of open bite. Later on, Wassmund published a book in which he classified mandibular fractures. In Berlin, Georg Axhausen (1877-1960) developed innovative techniques in the field of maxillofacial surgery, and was the first surgeon to perform maxillary advancement using Le Fort I maxillary osteotomy with maxillomandibular immobilization, in 1934.

### CONGENITAL ANOMALIES IN THE BEGINNING OF THE 20TH CENTURY

In the beginning of the 20th century, two French physicians gave paramount contributions to the study of congenital craniofacial deformities. Initially, in 1906,



*Eugène Charles Apert  
(1868-1940)*

it was Dr. Apert who described a case of deformity affecting the skull, face and hand, denominated acrocephalosyndactyly. **Dr. Eugène Charles Apert** was born in Paris on July 27th, 1868, and graduated in Medicine in 1897. He developed graduate studies in Pediatrics, and worked at Hôpital Saint-Louis prior to signing up for World

War I. Apert's most important investigations focused on congenital deformities and genetic diseases. He died in 1940, at 72 years of age.

In 1912, Dr. Octave Crouzon presented the first of a series of studies on facial deformities.

**Louis Edouard Octave Crouzon** was born in Paris in 1874, and specialized in Neurology. He created a neurological center and became a professor in Salpêtrière. His classical study published in 1912 presented two cases of skeletal malformation affecting mother and child, which was originally described as craniofacial dysostosis. In his last presentation, in 1931, Crouzon defined the



*Octave Crouzon  
(1874-1938)*

characteristics of the syndrome with greater precision, and differentiated it from that defined by Apert in 1906 (although both authors agreed in relation to the similarities of their presentations and in the aspects that concerned hereditaryness). Crouzon died in 1938, in Paris, at 64 years of age.

The first physician to describe, in the mid 19th century, the early closure of the cranial sutures, namely a German pathologist named Rudolf Virchow, was the one who started the spread of modern knowledge about craniostenoses. The use of neurosurgical techniques for the treatment of this condition began in about 1920, and several other studies concentrated on craniofacial syndromes in general, such as the study on Treacher-Collins's syndrome, first published by Collins (a British ophthalmologist) in 1900 and made popular by Franceschetti in 1944.

### WORLD WAR II

The invasion of Poland by Adolf Hitler on September 9th, 1939, marked the beginning of World War II (1939-1945). Once more, craniomaxillofacial surgery would have the opportunity to develop based on the pain caused by war-related injuries. In spite of the experience accumulated in plastic surgery units during World War I, few departments had been organized in the United States. In 1942, Dr. James Barrett Brown was put in charge of the services of plastic surgery, so as to coordinate the treatment of patients wounded and mutilated in war both in the European war setting and in the United States.

**James Barret Brown** (1899-1971) was born in Hannibal, Missouri, and graduated in Medicine from the University of Washington, in St. Louis. Later, he became a professor of Maxillofacial Surgery in the School of Dentistry at the same institution. Dr. Brown had also been Blair's assistant, and during World War II, he personally headed the Plastic Surgery Unit at Valley Forge General Hospital, in addition to coordinating the government military medical services in the field of plastic surgery. He succeeded Blair as head of this clinic in the US Army.



*James Barret Brown*

With the advancements observed in reconstructive plastic surgery since World War I, and with a better understanding of the use of flaps in facial reconstruction,



early and more invasive procedures started to be performed, based on techniques such as that described by Gillies for the correction of posttraumatic defects in facial soft tissues.

Harold Gillies was 57 years old when World War II began, and was already considered the most important and renowned plastic surgeon in Europe. He once more gave extremely important contributions to this medical specialty, this time at Rookdown House, Basingstoke. Bone grafting procedures were then performed more frequently, and several studies carried out by McIndoe focused on the indication of iliac crest bone grafting for the reconstruction of facial bones.

The atomic bomb dropped by the United States on Hiroshima and Nagasaki, Japan, in August 1945, killed over 100,000 people, and definitely determined the end of the war, becoming the symbol of horror, according to several historians.

## POSTWAR PERIOD

After World War II, the advancements in maxillofacial surgery and facial reconstructive plastic surgery continued to grow. In the United States, the work of **Dr. John Marquis Converse** (1909-1981) was becoming widely known. Together with Kazanjian, he published classical studies, such as the famous book entitled *The Surgical Treatment of Facial Injuries*, in 1949.



John Marquis Converse  
(1909-1981)

In 1950, Gillies published a historic publication in association with Harrisson. This study, considered by many people as "one of the most fascinating surgical reports in the history of craniofacial surgery", described the performance of the first planned osteotomy, a reproduction of Le Fort III fracture. The surgery had been performed in 1949 using an extracranial access route, without the use of bone grafts. The results obtained were unsatisfactory, and the level of relapse in the facial advancement process was high. Gillies's patient was a nurse presenting Crouzon's syndrome and oxycephaly. At the end of the procedure, Gillies expressed his worry about the surgery and, according to some sources, said: "The procedure was too dangerous and the patient was lucky to survive." Historical reports also tell that Gillies declared that he



Sir Harold Gillies

would never perform that procedure again.

In spite of this, from a historical point of view, Gillies's surgery was of extraordinary importance and may be considered a **milestone in the beginning of craniofacial surgery.**

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# PAUL TESSIER, MD - THE FATHER OF CRANIOFACIAL SURGERY

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*"Craniofacial surgery is turning around the orbit and ethmoid bone which belong to the cranial cavity as well as to the facial skeleton."*

(P. L. Tessier)



Paul Tessier



Tessier deserves a whole chapter in the history of craniofacial surgery. For many, this French surgeon is worth being entitled "the father of craniofacial surgery".

Paul Louis Tessier was born on August 1st, 1917, in the town of Heric, Brittany, France, in the midst of World War I. However, he studied in a town nearby, Nantes, where he attended the École de Médecine. He was first trained in surgery, orthopedics and ophthalmology.

Tessier's undergraduate course was tumultuous. He was admitted to the École de Médecine in Nantes in 1936, when he was 18 years old. However, he was made a war prisoner as France was invaded by the German army in May 1940. He returned to his studies in 1941 and received his college diploma in 1943. In the same year, he was granted the title of Doctor in Medicine by the Faculté de Médecine de Paris. Thus, we can say that Dr. Paul Tessier finished his undergraduate course in Medicine and started his extensive studies of surgery during World War II (1939-1945).

Tessier took several graduate courses, which resulted in a singular graduate curriculum. Thus, he initially dedicated himself to general surgery at Hôpitaux de Nantes from 1941 to 1944. Afterwards, he specialized in maxillofacial surgery and otorhinolaryngology in Paris with Dr. Viret and Dr. Aubry at Hôpital de Puteaux and at Hôpital Foch. From 1944 to 1946, he was Professor Ginestet's assistant at the Centre de Chirurgie Maxillo-Faciale, in the military area of Paris.

Following that, he worked with Dr. Georges Huc in the field of pediatric orthopedics at Hôpital Saint Joseph from 1945 to 1950. Meanwhile, from 1947 to 1949, he simultaneously dedicated himself to ophthalmology at the Service d'Ophtalmologie de Nantes.

He had professional experience in several areas, such as general surgery, maxillofacial surgery, otorhinolaryngology, pediatric orthopedics, and ophthalmology. However, it was only during the years from 1944 to 1950 that the solid basis of Tessier's main talent would be formed: facial surgery. He gained large experience while visiting centers of excellence in plastic surgery in Europe and the United States.



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During this time (from 1946 to 1950), Paul Tessier went on six journeys lasting six to eight weeks each to watch and learn with European plastic surgery masters, such as Gillies and McIndoe. In the following year (1951), Tessier spent five months visiting plastic surgery services in the United States. He went to New York, San Francisco, Los Angeles, and Saint Louis and he personally met John Marquis Converse, who was then 42 years old and was already renowned for his publications and work along with Varaztad Kazanjian, an experienced 72-year old surgeon.

During the 40s, Tessier gained much experience in the treatment of orbital traumas in war-wounded patients and also in cases resulting from car accidents.

Tessier discovered the importance of accurate knowledge of the anatomy of craniofacial region very early, and took several weekend trips to the École de Médecine de Nantes with the aim of dissecting the head of corpses. As he read the famous case of advancement of the middle third of the face performed by Gillies (published in 1950), he made surgical experiments with corpses as a preparation for a similar surgical intervention he would perform in the near future, and he searched for the reasons that led to failure in Gillies's final result.

With a determined and questioning attitude, Tessier shed light on several clinical and surgical problems associated with Le Fort III advancement. Simultaneously, he studied the surgical correction of orbital hypertelorism (hyperteleorbitism), and, as he worked with neurosurgeons from Hôpital Foch, his solid knowledge of anatomy, ophthalmologic surgery and neurosurgery allowed him to find out and propose a transcranial access route for the performance of a circumferential medial mobilization of the orbits.

As it is known by every craniofacial surgeon, the performance of surgery via the cranium is an arduous and at the same time exciting task. For many years, patients with congenital or acquired complex craniofacial deformities represented a challenge for surgeons. Many professionals abandoned the area of reconstructive plastic surgery after successive failures. Tessier also faced unfortunate results in his first surgeries, but he did not feel discouraged. He was not a usual man. His audacious attitude and skill, along with his deep knowledge of anatomy and a considerable surgical experience, started to make "impossible" surgeries become recurrent successes.

In the 4th Annual Congress of the International Confederation of Plastic Surgeons, held at the Hilton Cavalieri Hotel in Rome, in 1967, Tessier made presentations in which he described his initial experience



in the correction of craniofacial deformities. For many people from the medical community, that congress marked the beginning of craniofacial surgery. Crouzon's syndrome, Apert's syndrome, hyperteleorbitism, type 3 and type 4 facial fissures, in addition to Treacher-Collins-Franceschetti's syndrome were

presented in three panels.

Using the fracture levels indicated by Le Fort as those in which the most complex facial traumatism would occur, Tessier focused on osteotomy lines which allowed the complete mobilization of the mid third of the face, radically eliminating deformities caused by maxillary retrusion. In addition, by determining the basic anatomical points of craniofacial malformations, Tessier and Gerard Guiot showed that the face could be surgically detached from the base of the skull, which could also have radical consequences for the treatment of hyperteleorbitism.

Later on, Tessier organized a special scientific meeting at Hôpital Foch, in which he presented all the cases he had operated and made surgical demonstrations that were transmitted to a selected audience. He invited the most outstanding facial surgeons of his time to evaluate his work, and they encouraged him to go on with his studies. This support was decisive for the development of craniofacial surgery.

From 1968 on, surgeons from all over the world made a true peregrination to Hôpital Foch in order to learn about that new specialty within plastic surgery. Paul Tessier was the head of the plastic surgery and burn department at Hôpital Foch (Suresnes) from 1946 to 1983. He was also an adviser for ophthalmologic services in Nantes and in Lille from 1947 to 1975.

## THE INTERVIEW GIVEN TO MONASTERIO

"When a scientific advance that breaks with previously accepted dogmas is achieved, a breach is opened through which one can see previously unsuspected possibilities for exploration. When the phenomenon achieves its utmost consequences, the original field of knowledge has been enlarged, its boundaries have been broadened, and it is necessary to redefine them."

Dr. Fernando Ortiz Monasterio is one of the most important professionals in the field of craniofacial surgery worldwide. His curriculum includes titles such as professor of Plastic Surgery at Facultad de Medicina de la Universidad Nacional Autónoma de México, head



of the plastic and reconstructive surgery division of Hospital General Manuel Gea González (of which he had also been a director). In 1979, Dr. Monasterio wrote a special issue of the *Revista de Cirugía Plástica Ibero-Latinoamericana*, entitled "Cirugía Craneofacial" (Craniofacial Surgery), in which he published a historic interview with Dr. Paul Tessier, which we reproduce below in English.

The interview occurred in the summer of 1977, in the city of Barcelona, Spain.



"I started my medical studies in Nantes, where I also began my career as a surgeon. I had been to Paris to specialize and I stayed there after the war working in the area of general surgery. My supervisor was Georges Huc, a well-known orthopedist at Hôpital Saint Joseph, who was interested in malformations manifested in children, including facial malformations. He had a great influence on me."

"(...) along four years (starting in 1946), I spent three to four months a year in England visiting Gillies, Mowlem, McIndoe, and Barron, while I continued to work in Saint Joseph, in Paris, at the same time. These journeys did not last long, since my work would be limited abroad. However, despite that, all the knowledge I acquired was immediately put into practice."

"(...) I cannot tell when I got interested in craniofacial surgery, since it did not exist as such by that time."

"(...) in 1957, I met a 20-year old patient and his mother, and the patient's prodigious exophthalmus and monstrous physical appearance did not resemble anything I had ever seen before. By the end of the examination, I had not figured out the name of that condition. Two months later, when I met them again, I knew that it was a case of Crouzon's syndrome, and had come to the conclusion that orbital, maxillary and facial deformities should be treated simultaneously." [As a matter of fact, Crouzon had described the syndrome in 1912, and Gillies had already referred to its treatment in 1950.]

"(...) I had never imagined that I would transform a fracture level into a surgical procedure." [Referring to the work of René Le Fort, 1901.]

"(...) retrospectively, I think it was good that my first case was so monstrous, because it forced me to search for a radical solution. (...) the osteotomy procedure described by Gillies for the treatment of a moderate case of Crouzon's syndrome did not seem suitable to my case. I had to find something else." [Apparently, the case Tessier examined in 1957 was more severe in terms of skeletal hypoplasia than the case described by Gillies.]

"(...) of course I practiced with corpses. In the beginning, I worked on dry skulls I had at home, even though I knew they were

different from those of my patients". What I did not know was which the differences were. (...) Then, I thought to myself: Of course! I will take my team to the department of anatomy of Nantes, where I used to work as an assistant!"

"(...) for several times, I took the evening train from Paris to Nantes along with my instrument technician and sometimes other people from my team. We arrived in Nantes at 8 p.m. and went straight to the mortuary to simulate the surgery I was planning for my patient. We usually took the train back after midnight, and by 9 a.m. we arrived in Paris. However, after some time I realized that cadaver tissues treated with formol did not allow skeletal mobilization."

"(...) finally, I thought I was ready to perform my first operation. (...) As you may imagine, we faced several difficulties. The facial mass advanced 25 mm, losing its contact with the skull; (...) of course we already had bone grafts to fill the spaces, but before we started the operation, I could not imagine that there would be so many irregular and large spaces."

"(...) it was not as it is today, when we use coronal incision. Multiple incisions in the face provided insufficient exposition, (...) and instruments were not adequate either: they caused small fractures of irregular contour. Bone grafts did not coincide with the spaces, and osteosyntheses were not satisfactory."

"(...) the main problem was the obtainment of facial mass fixation in the end of the operation. After some days, the face did not present stability, and a device for external fixation (Simul) was produced with urgency. Two weeks later, the device was fixed to the temporal ridge and to the zygomatic arch with screws. Since the first device did not work well, another one was produced, which finally gave stability to the face."

"(...) after that, I operated three other patients within some weeks. And, right after that, I operated two or three cases of craniostencosis."



"(...) I got interested in hypertelorism almost simultaneously. My friend Lagache, a surgeon from Lille, showed me the case of a young man with orbital hypertelorism with such a monstrous aspect as the first case of Crouzon I operated. (...) canthoplasty and other usual procedures would not have any effect in such a case. The treatment had to follow another approach."

"(...) for that purpose, I established a professional relationship with Guiot, a neurosurgeon from Hôpital Foch who was greatly experienced in the treatment of orbital meningiomas (...). In association with Guiot, we performed reconstruction simultaneously to tumor exeresis or traumatism treatment."

"(...) I thought it would be necessary to remove tissues from between the orbits in order to bring the orbits together in the center.

That would only be possible with the use of an intracranial access route (...). Guiot was worried about the risks of infection as we opened the nasal cavity and the frontal sinus. 'But this is precisely what you do when you remove tumors' I replied."

"(...) we decided to perform a preliminary reinforcement of meninges. Guiot conducted the frontal craniotomy, removed part of the frontal sinus, which had grown extraordinarily, and obliterated the rest. I used a skin graft to reinforce the meninges. At this moment, I realized I was not ready to join the orbits, and that there were too many anomalies that I could not understand."

"(...) I waited for three more years to operate a case of hypertelorism for the first time. In 1964, in a period of three weeks, I operated three cases of hypertelorism in association with Guiot; all evolved well." [Right after that, Tessier reoperated his first patient, in which he had only placed a graft.]

"(...) yes, I presented my first case in Montpellier, in the meeting of the French Plastic Surgery Society, in 1967. My paper was highly praised, but at that opportunity, I did not think that my contribution could be so important."

"(...) in the International Congress held in Rome, also in 1967, many colleagues from other countries were interested in my studies. The comments of Schmidt, Obwegeser, Converse and many others made me think that maybe I was dealing with something really new."

"(...) I realized that many wanted to see this surgery. So I decided to have the first meeting in Foch in December 1967. I invited renowned professionals in the field of maxillofacial surgery, ophthalmology, neurosurgery, pediatrics, and plastic surgery. About 20 people watched the performance of the procedure: Schuckart, Converse, Petit, Mustardé, and many others. The meeting lasted one week. I presented all the cases I had operated and transmitted the operation of four other patients: two cases of hypertelorism and two cases of Crouzon's syndrome."

"(...) I told them: 'I ask you, neurosurgeons, ophthalmologists, pediatric surgeons, and others who dedicate yourselves to other disciplines, to act as critics and make your comments. If, after watching these four operations, you think that my work poses too much risk for patients or that I compromise their future, if, despite the favorable results achieved until now, you think that the risk is too high, I give you my word that I will suspend this type of surgery.'"

At this point of the interview, Dr. Monasterio commented that he was sure that comments were favorable, to which Dr. Tessier replied:

"(...) no, Fernando, you are wrong. I had absolutely no certainty that the visitors would agree with my procedures. If men like Hogeman, Guiot, Ordin or Mustardé had told me: 'It is insane, you cannot continue this', I would have stopped immediately."

"(...) comments were favorable. They said: 'This is unlike the kind of surgery we are used to. We have been seeing impressive maneuvers, which may be risky. But which surgery does not involve some risk? Thus, you should go on.'"

Craniofacial surgery, which was already being practiced at that time, was made official and named during this historic meeting at Hôpital Foch, with the support of many of the most important representatives of the scientific community in the world. The development of this specialty, starting with the works of Paul Tessier, allowed for the correction of complex deformities which were then considered impossible to treat, representing the greatest challenge of reconstructive plastic surgery.

## TESSIER AND THE WORLD

"He electrified the International Congress of Plastic Surgery in Rome in 1967 with a paper describing his initial experience in the correction of craniosynostosis and orbital hypertelorism. This was the dawn of a new era in facial reconstruction (...)."

For many years after that, specialists in plastic surgery, maxillofacial surgery and neurosurgery invited Paul Tessier to show his technique. Medical societies, universities and schools all around the world were interested in learning (and making students learn) with the French doctor who had found a way to correct facial malformations using the intracranial route.



In 1968, John Converse watched Tessier perform the correction of orbital hypertelorism at Hôpital Foch and learned each of the steps of the surgery. Converse was 59 years old, and Tessier was 51. As he returned to New York, Converse reproduced the technique with the help of his colleague Dr. J. Ransohoff, a neurosurgeon, and invited Tessier to present the principles of craniofacial surgery and his paper on hypertelorism in the meeting of the American Society of Plastic and Reconstructive Surgeons, in New Orleans, in October 1968. The meeting was being organized by Converse himself.

At this meeting, Tessier met Dr. Samuel Pruzansky, of whom he would become a close friend. One of the greatest lessons Paul Tessier taught to the



world was the need for preparing multidisciplinary staffs to work in the field of craniofacial surgery. Pruzansky, however, had been a pioneer of this professional concept, once he founded the Center for Craniofacial Anomalies at University of Illinois, Chicago, in 1949.

Thanks to the good reputation of Dr. John Converse, a center for craniofacial anomalies was founded at the Institute of Reconstructive Plastic Surgery in 1970, with the financial aid of the Billy Rose Foundation. In 1973, a subvention of the National Institute of Dental Research allowed the performance of multidisciplinary investigations aimed at the diagnosis and treatment of craniofacial malformations. This center was, in fact, an improved version of a previous service Dr. Converse had created in 1955 specifically for the rehabilitation of patients with facial deformities.



Samuel Pruzansky

**Samuel Pruzansky** had received his college diploma in Dentistry and was a specialist in orthodontics. In addition, he had a PhD in Physiology and studied congenital anomalies. Pruzansky collected clinical data from various types of craniofacial malformations for many years. From 1968 to 1971, he established new concepts for Crouzon's syndrome, Treacher-Collins's syndrome, Apert's syndrome and hypertelorbitism.

In 1971, an international congress on diagnosis and treatment of craniofacial anomalies, also organized by John Converse, was held at the New York University Medical Center.

In this congress, which received the financial support of the Educational Foundation of the American Society of Plastic Surgeons and of the Billy Rose Foundation, Tessier and Pruzansky met for the second time. At this occasion, Paul Tessier was given the opportunity to give the V.H. Kazanjian Memorial Lecture, where he brilliantly demonstrated the impact of craniofacial surgery on medicine as a whole.

In 1972, Pruzansky invited Tessier to perform operations with him in Chicago. Tessier's admiration was clear in his comment on this sequence of surgeries: "Sam was the spirit, I was the hand." Tessier worked with Pruzansky for five years (1972 to 1976), spending one or two weeks twice a year in the United States, and performing a total of 74 surgeries at different hospitals. A second international conference would take place a few years later, at the New York University Medical Center, in 1976.

This professional relationship was described by Tessier as the most exciting one in his life. When Pruzansky died, on February 3rd, 1984, he wrote: "We all lost a master. (...) I personally lost a friend, almost a brother."

## 15 AND 25-YEAR CELEBRATIONS

Fifteen years later, in March 1982, at the same Hilton Cavalieri Hotel in Rome, a selected group of physicians held a meeting on this new specialty - craniofacial surgery -, which was different from maxillofacial surgery and from neurosurgery, despite its natural interfaces.

The title of the course was The Present Status of Craniofacial Surgery, and it lasted four days (nine hours a day), having a highly scientific scope. Later on, the papers presented at the meeting were published in a book edited by Ernesto Caronni.

From October 21st to October 24th, 1992, the International Symposium on Craniofacial Surgery in Honor of Paul L. Tessier, MD, on the 25th Anniversary of his Historic Presentation in Rome, was held in Chicago, Illinois.



By this time, Tessier (then with 75 years of age) had already been granted several titles throughout his career. His impressive international curriculum included:

- Honorary Degree from Lund University (Sweden);
- Royal College of Surgeons of England;
- Royal College of Surgeons of Edinburgh;
- President of the Association Française des Chirugiens Maxillofaciaux;
- President of the Societe Française de Chirurgie Plastique et Reconstructive;
- President of the European Association of Maxillofacial Surgeons;
- Founding President of the International Society of Craniofacial Surgeons;
- Lecturer of Kazanjian, Monks and Maliniac Lecture.



On the celebration of the 25th anniversary of his historic presentation, Paul Tessier showed his innovative and untiring character. He gave hope and a new life to many patients who were disfigured by complex facial deformities. Enthusiastically, he taught his techniques and inspired other surgeons. His work allowed the quick and intense development of multidisciplinary craniofacial surgery teams, in addition to several rehabilitation programs all around the world.



The prospect that was handed out for participants in another historic meeting in the field of craniofacial surgery stated: "This symposium is dedicated to Paul Tessier by his colleagues and friends. We salute the Father of Craniofacial Surgery on the 25th Anniversary of his Rome paper."

#### TESSIER, THE LEGEND

The combination of the most radical surgical procedures and the conventional methods of facial reconstruction constituted the basis of what Tessier named "orthomorphic craniofacial surgery." His main aim was always to achieve an esthetic result that would be pleasant for the patient. And this can only be accomplished by surgeons who have a rare artistic sense.

The result of the development of this specialty provided the possibility of performing safer surgeries in the area of craniofacial transition, which had always been considered a "no man's land" among neurosurgeons, ophthalmologists, plastic surgeons, and maxillofacial surgeons.

Paul Tessier established concepts based on hard study, skillfulness, and persistency. Thanks to his solidly-based lessons, many craniofacial surgery centers were founded around the world, allowing for many patients to have their congenital, neoplastic and traumatic deformities treated. The closest collaboration between plastic surgery and neurosurgery was carried out by Tessier and Guiot, and the subsequent outstanding progresses of craniofacial surgery were certainly based on the concept of multidisciplinary teams.

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# THE HISTORY OF THE INTERNATIONAL SOCIETY OF CRANIOFACIAL SURGERY

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*"Every man owes some of his time to the upbuilding of the profession to which he belongs."*

(Theodore Roosevelt, 1858-1919)

## THE EARLY MEETINGS

In May 1972, Paul Tessier organized a one-week Theoretical and Practical Symposium on Craniofacial Surgery, which counted on the presence of plastic surgeons from several countries who were interested in the subject. Among the participants, the following names are worth mentioning:

Dr. Bengt Johansson, MD (Sweden)  
Dr. Fernando Ortiz-Monasterio, MD (Mexico)  
Dr. Gilvani Azor de Oliveira e Cruz, MD (Brazil)  
Dr. Ian R. Munro, MD (Canada)  
Dr. Ian T. Jackson (USA)  
Dr. Jorge Diamant (Brazil)  
Dr. Jorge Miguel Psillakis, MD (Brazil)  
Dr. Kenneth E. Salyer, MD (USA)  
Dr. Linton A. Whitaker, MD (USA)  
Dr. Miguel Gonzales, MD (Chile)  
Dr. S. Anthony Wolfe, MD (USA)  
Dr. Sergio de Almeida, MD (Brazil)

The Symposium was very successful in terms of organization, and provided free meals for all participants. Surgeries carried out in the operating room at Hôpital Foch were transmitted to the amphitheater, similarly to the videoconference systems used in the current days - by very innovative at that time (30 years ago).

Surgeries were carried out simultaneously in two rooms, starting at 7 a.m. and continuing nonstop until

about 10 p.m. Paul Tessier performed the most important procedures in all surgeries, and went from one room to the other all the time; his team was composed of several surgeons (plastic surgeons and neurosurgeons), in addition to two excellent instrument technicians who used to join him in all his trips.

Questions were made directly to Tessier. The cases operated included hypertelorbitism, Crouzon, Apert, orbital dystopia, maxillomandibular deformities, etc.

The Symposium also promoted an exhibit of wax skulls, with the aim of showing examples of the following aspects:

1. craniofacial deformities (pieces coming from European museums);
2. osteotomy lines, bone block mobilizations, and placement of bone grafts, i.e., all techniques that Tessier had already used.

This exhibit was considered very important and useful by most participants, since "a picture is worth a thousand words."

Tessier made an extraordinary effort to show the viability of his ideas and to consolidate and popularize his techniques, which were then still considered daring. It should be mentioned that, just like any other "new idea", Tessier's proposals initially faced strong opposition on the part of famous plastic surgeons from France and other countries. In reality, Paul Tessier was called "crazy" after his first presentation in Rome, in 1967.

The last day of the Symposium was on a Friday. After Tessier's presentation, each of the participants had the opportunity to present their own cases and discuss relevant aspects with him. However, members of the team led by Tessier had collected the surgeons' slides and radiographs one day prior to the presentations and had copied all information with no proper authorization, and this spread a feeling of

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<sup>2</sup> Member, Brazilian Society of Plastic Surgery. Member, Brazilian Society of Craniofacial Surgery. Professor, Surgical Clinic, School of Medicine, Universidade de São Paulo.



discomfort among the participants. Some complained about Tessier's initiative, and he explained that the information collected constituted a small contribution of each of the participants to the Symposium. Psillakis, one of the surgeons who was present at that occasion, has recently commented the fact: "Nowadays, I think he was fair, once his aim was to study the highest possible number of cases, mostly rare cases."

In the subsequent years, several surgeons started to meet with the aim of presenting medical cases and exchanging results. As time went by, the surgeons observed that the small number of cases treated by each individual surgeon hindered the collection of significant statistical results, especially in terms of complications and limitations. In fact, the index of complications and limitations reported in these meetings was considerably high, but these aspects were not addressed by Tessier. Thus, several surgeons started to feel frustrated and faced great difficulties in developing teamwork so as to confer a scientific character to this field of medicine.

The need for establishing a group of work was progressively felt by those who had a closer relationship and who used to attend medical meetings. Therefore, four surgeons decided to get together: Ian R. Munro (then working specifically with craniofacial surgery, and no longer with general plastic surgery, in Montreal, Canada), Ian T. Jackson, Kenneth E. Salyer, Linton Whitaker, and Fernando Ortiz-Monasterio. These renowned surgeons organized a standard protocol for each type of pathology, and collected data at different services. In addition, they asked surgeons from other countries to help in the collection of data by sending descriptions of their cases. This initiative resulted in the publication of studies by members in co-authorship, and represented the first association between professionals who shared the same interest. In other words, the initiative of this group can be considered as the origin of the Society of Craniofacial Surgery.

## **THE INTERNATIONAL SOCIETY OF CRANIOFACIAL SURGERY**

In 1982, Ernesto P. Caronni, from Milan, Italy, organized a Congress on Craniofacial Surgery in honor of the 15th anniversary of Tessier's first presentations in Rome (1967). The 1982 Congress was attended by a high number of people and is recognized as the first international congress of the craniofacial surgery specialty. Several studies were presented during the Congress, and a book was published.

The first meetings aimed at the foundation of the International Society of Craniofacial Surgery were held during this Congress. Surgeons felt the need for sharing knowledge on certain themes in international congresses, and not only by means of free communications, but also round-table discussions, symposiums, conferences, etc. So, headed by the surgeons previously mentioned, they decided to have a meeting the following year in Montreal.

In the 1982 Congress, the Society's founding members were chosen among professionals who effectively worked with craniofacial surgery, who had already published and presented studies at medical meetings, and who were engaged in the training of other professionals. The selection of these members was very demanding, and the Society intended to go on with its extreme rigor in the admission of new surgeons to the board of members, requiring incontestable proofs of the candidates' skillfulness in performing such complex surgeries - thus preserving the name of the institution and of the specialty. Several members volunteered to write a draft of the statutes to be presented at the meeting in Montreal, among which we can mention Joseph G. McCarthy, Ian T. Jackson, Ian R. Munro, Fernando Ortiz-Monasterio, Kenneth E. Salyer, and Linton A. Whitaker.

The International Society of Craniofacial Surgery (ISCFS) was founded in June 1983, in Montreal, as the Craniofacial Surgery Chapter of the International Confederation for Plastic, Reconstructive and Aesthetic Surgery. The Society's 18 founding members held leading positions in the field of plastic surgery all over the world, with a specific interest in craniofacial reconstructive surgery, and were participating in the International Confederation Quadrennial Congress, which was then being held in that city.

### **ISCFS founding members were:**

Dr. Ernest P. Caronni, MD (Italy)  
Dr. David J. David, MD (Australia)  
Dr. Milton T. Edgerton, MD (USA)  
Dr. Ian T. Jackson, MD (USA)  
Dr. Bengt Johansson, MD (Sweden)  
Dr. Henry K. Kawamoto, MD (USA)  
Dr. Daniel Marchac, MD (France)  
Dr. Joseph G. McCarthy, MD (USA)  
Dr. Ian R. Munro, MD (USA)  
Dr. Joseph E. Murray, MD (USA)  
Dr. Fernando Ortiz-Monasterio, MD (Mexico)  
**Dr. Jorge Miguel Psillakis, MD (Brazil)**  
Dr. Kenneth E. Salyer, MD (USA)

Dr. Michael Stryker, MD (France)  
Dr. Paul Louis Tessier, MD (France)  
Dr. Jacques van der Meulen, MD (Holland)  
Dr. Linton A. Whitaker, MD (USA)  
Dr. S. Anthony Wolfe, MD (USA)



Jorge Miguel  
Psillakis (Brazil)

Paul Tessier was elected the Honorary President, and several commissions were organized in order to prepare the Society's statutes. As already stated, criteria for admission to the Society were very rigorous, and included: a certificate of formal training by an internationally recognized team; publications in the field of craniofacial surgery issued up to two years prior to

application; a given minimum annual number of routine surgical interventions using intracranial access routes.

The original name of the Society was International Society of Craniomaxillofacial Surgery, but it was further changed to International Society of Craniofacial Surgery so as to reflect the medical field of its members in a more precise way and to delimitate the differences between craniofacial surgery and other specialties. In fact, ISCFs members have always been concerned with the divergences found between craniofacial surgery and the specialties that have always dealt with the lower third of the face, that is, with maxillary congenital and acquired deformities.

The first Congress promoted by ISCFs was held in the year of 1985 in La Napoule, France, and Paul Tessier led the activities as the Honorary President.



In 1987, the II Congress occurred in Nova Deli, India, simultaneously to the International Confederation Meeting. Once more, Dr. Paul Tessier was leading the activities. The subsequent editions of the Congress occurred as described below:

III Congress - 1989 - Firenze, Italy  
President: Dr. Ian Munro  
IV Congress - 1991 - Santiago de Compostela, Spain  
President: Dr. Joseph McCarthy  
V Congress - 1993 - Oaxaca, Mexico  
President: Dr. Fernando Ortiz-Monasterio  
VI Congress - 1995 - St. Tropez, France  
President: Dr. Daniel Marchac (270 participants from 29 countries)  
VII Congress - 1997 - Santa Fe, USA  
President: Dr. Linton Whitaker  
VIII Congress - 1999 - Teipei, Taiwan  
President: Dr. Yu-Ray Chen  
IX Congress - 2001 - Visby Gotland, Sweden  
President: Dr. Claes Lauritzen

#### CURRENT ISCFs OFFICERS

The current President of ISCFs is Dr. Kenneth Salyer, from Dallas, Texas, USA. The X Congress, or 10th Biennial International Conference, will occur this year (2003) at the Monterey Conference Center, in Monterey, California, USA.

The current ISCFs officers (2002-2003) are listed below:

President: Kenneth E. Salyer, MD (USA)  
Secretary-Treasurer: David J. David, MD (Australia)  
Chief Financial Officer: Linton A. Whitaker, MD (USA)



Dr. Kenneth Salyer (7777 Forest Lane, Suite C 717, Dallas, TX, USA, 75230, Phone: +1-972- 566-6555, Fax: +1-972-566-6017, E-mail: kes@craniofacial.net, www.craniofacial.net)



Linton Whitaker



David David



The current Council members are:

Barry Jones, MD (England)  
John Persing, MD (USA)  
J. Michael Vaandrager, MD (Holland)  
Charan Mahatumarat, MD (Thailand)  
Claes Lauritzen, MD (Sweden)

To know more about ISCFS, access [www.ISCFS.org](http://www.ISCFS.org).

## ISCFS MEMBERS

The admission of a surgeon to the board of members of the Society is always made through invitation, and there are six different member categories:

1. Founding Members
2. Active Members
3. Associate Members
4. Corresponding Members
5. Honorary Members
6. Life Membership

All information on how to apply for membership can be obtained via email ([Info@craniofacial.net](mailto:Info@craniofacial.net)).



The *Journal of Craniofacial Surgery* is the official publication of the International Society of Craniofacial Surgery, of the American Association of Pediatric Plastic Surgeons, and of the European Society of Craniofacial Surgery. The Chief Editor of the journal is Dr. Mutaz B. Habal, MD,

FRSCS, from Tampa, Florida (USA).

Several of the greatest characters in the field of craniofacial surgery worldwide are members of the Society. Here we mention some of these members: Scott Bartlett (Philadelphia, USA), Yu-Ray Chen (Taipei, Taiwan), Craig Dufresne (Washington, USA), Antonio Fuente-del-Campo (Mexico, DF),

Joseph S. Gruss (Seattle, USA), Mutaz B. Habal (Tampa, USA), Barry M. Jones (London, England), Claes Lauritzen (Goteborg, Sweden), Paul N. Manson (Baltimore, USA), Jeffrey L. Marsh (St. Louis, USA), Adolfo G. Montoya (Madrid, Spain), Wolfgang Muhlbauer (Munich, Germany), John B. Mulliken (Boston, USA), Kitaro Ohmori (Tokyo, Japan), Douglas K. Ousterhout (San Francisco, USA), John A. Persing (New Haven, USA), Michael Poole (Kogarah, Australia), Jeffrey C. Posnick (Washington, USA), Michael Sadove (Indianapolis, USA), Patrick K. Sullivan (Providence, USA), Bryan Toth (San Francisco, USA), Cássio Menezes Raposo do Amaral (Campinas, Brazil), and Vera Lucia Nocchi Cardim (São Paulo, Brazil).



Cássio Raposo do Amaral (Brazil)



Vera Lucia Nocchi Cardim (Brazil)

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# THE HISTORY OF CRANIOFACIAL SURGERY IN BRAZIL

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*"If I have been able to see further, it was only because I stood on the shoulders of giants."  
(Isaac Newton)*

## THE VISIONARIES

The history of craniofacial surgery in Brazil starts in the mid 60s. At this time, three renowned and eminent Brazilian professors of Plastic Surgery, one from Rio de Janeiro (Ivo Pitanguy) and two from São Paulo (Paulo de Castro Correia and Victor Spina) were already able to foresee the importance that this specialty would take on worldwide. As already reported in the beginning of this issue, the studies of John Marquis Converse in the United States and of Harold Gillies in Europe had had repercussions all over the world in the end of the 50s.

Prof. Ivo Pitanguy was a visiting fellow of Dr. John Marquis Converse at his service of plastic surgery in New York; of Dr. Harold Gillies at the Park Prewett and the Basingstoke and Rookdownhouse Hospitals, in London; of Sir Archibald McIndoe at Queen Victoria Hospital, also in London; and of Dr. Paul Tessier, at Hôpital Foch, in Ville de Suresnes, France.



Prof. Ivo Pitanguy

In 1960, the Graduate School of Medicine at Pontifícia Universidade Católica do Rio de Janeiro issued the discipline of Plastic Surgery (Prof. Ivo Pitanguy was chosen to be the professor). In the same year, the first edition of the Graduate Program in Plastic Surgery

was also held, and the hospital chosen for the performance of practical (surgical) activities was Santa

Casa de Misericórdia do Rio de Janeiro, where Prof. Pitanguy founded the first Brazilian hand surgery clinic, in 1949 (19th ward), and service of plastic surgery, in 1954 (38th ward). Later on, he organized and headed the burn service, which was created due to the burning episode occurred at Gran Circo Norte-Americano, in the city of Niterói, in 1961. Therefore, in addition to esthetic surgery, the beginning of Prof. Pitanguy's career was basically dedicated to two areas of reconstructive plastic surgery: hand and burn. The Ivo Pitanguy Clinic was founded in 1963.

Edgard Alves Costa was an outstanding young dental surgeon from Niterói. He was introduced to Prof. Ivo Pitanguy by Dr. Ronaldo Pontes, and since then he has worked as an adviser in the field of craniofacial surgery at the Ivo Pitanguy Clinic – a professional relationship that has now reached 40 years. Similarly to what happened to Kazanjian and Converse, Costa and Pitanguy were able to develop an extraordinary work together, mainly in the area of facial traumatology, which rapidly became very popular.

The plastic surgery activities of the School of Medicine of Universidade de São Paulo started at Hospital de Clínicas in 1944. However, the discipline of Plastic Surgery and Burn was created only in 1953, and Prof. Victor Spina was invited to be the professor – he was also the head of the service of plastic surgery at the Hospital. In 1956, the discipline was recognized by the Educational Foundation of the American Society of Plastic and Reconstructive Surgery, and the teaching structure was broadened, with the admission of several assistant professors.

Prof. Victor Spina was granted the title of Associate Professor of the Department of Surgery in 1972 and remained in this position up to 1978. During the 60s, due to the establishment of several partnerships with other disciplines and departments of the School of Medicine, new groups were formed in parallel with the center of plastic surgery, under the

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Prof. Victor Spina

responsibility of assistant physicians. One of these centers was the service of bucomaxillofacial surgery, which was composed of several dental surgeons.

The service of plastic surgery at Hospital de Clínicas (Universidade de São Paulo) has always been of paramount

importance to the treatment of patients carrying congenital deformities. Prof. Victor Spina was greatly interested in this area, and his interest inspired several of his pupils, which included a young man especially interested in craniofacial skeletal reconstructive surgery, namely **Dr. Jorge Miguel Psillakis**.

In 1977, the discipline of Plastic Surgery and Burn at Hospital de Clínicas, under the coordination of Prof. Victor Spina and with the help of Dr. Diógenes Laércio Rocha, started the organization of the craniofacial surgery sector, while Prof. Jorge Psillakis kept on developing his skills at the service he had founded at Beneficência Portuguesa de São Paulo.

**Prof. Paulo de Castro Correia** went to the United States in 1955, some time after participating in a contest for the position of professor at Universidade de São Paulo. There, he attended the opening ceremony of a service called Institute for Rehabilitation of Patients with Facial Deformities, founded by John Marquis Converse. This was the inspiration for his initiative to create a similar project in São Paulo.



Prof. Paulo de Castro Correia

When Prof. Paulo Correia returned from the United States in 1966, he came up with the idea of creating an association for the correction of facial defects in the state of São Paulo (Associação Paulista para Correção dos Defeitos da Face), and after that, he started to raise funds for the creation of a reference hospital. About seven years elapsed from the donation of a piece of land by Cruz Vermelha Brasileira (the Brazilian Red Cross) until the opening ceremony of the Hospital of Facial Defects, on December 13th, 1966.

The hospital was created with the aim of providing a multidisciplinary treatment to its patients, so that the staff included dental surgeons indicated by the School of Dentistry of Universidade de São Paulo.

Several of the previous students of Prof. Paulo de Castro Correia got interested in craniofacial surgery (in great part due to his strong influence) and actively participated in the history of the specialty in Brazil. Among these, the name of **Dr. José Marcos Mélega** is worth mentioning, mainly due to his pioneer work in the area.

## THE PIONEERS

"Science has always been built with large steps, but based on acquired knowledge. The history of craniofacial surgery is not different. The staircase started with bucomaxillofacial surgery and went on moving up, step by step, up to plastic surgery. Then, it incorporated knowledge from head and neck oncologic surgery, otorhinolaryngology, ophthalmology, traumatology-orthopedics, neurosurgery (...)." (Silvio Zanini, CD, MD)

Some distinct groups started to organize themselves and gave raise to the development of the specialty in our country. These groups were guided by some men that are worth being mentioned as the pioneers of craniofacial surgery in Brazil.

**Oswaldo de Castro** was the son of a dentist and used to attend his father's office since he was a child. He initially graduated in Dentistry and was a pupil to Laet de Toledo César, one of the pioneers of bucomaxillofacial surgery in Brazil. Dr. Laet was a dentist, a physician, and a greatly skilled surgeon.

After some time, Dr. Oswaldo started to work with a renowned plastic surgeon – Dr. Roberto Farina –, and this experience influenced his decision to study medicine. He graduated and became renowned in the 60s, mainly in the field of orthognathic surgery: he developed the surgical technique that is still used to treat mandibular prognathism, which takes his name and is cited in publications from all over the world.



Dr. Oswaldo de Castro

Dr. Oswaldo de Castro is a pioneer of craniofacial surgery in our country, and still works in the city of São Paulo, together with his son, Dr. André Parreira de Castro, who has a degree in Plastic Surgery.

**Jorge Miguel Psillakis** was born on December 24th, 1934. In 1966, with only 31 years of age, he took part in a contest for the position of assistant professor at Hospital de Clínicas da Universidade de São Paulo. On the practical exam, a patient with severe facial deformities was brought to Dr. Psillakis. The examining

committee was constituted by eminent professors from the fields of general, thoracic, and vascular surgery.



Dr. Jorge Miguel Psillakis

The patient presented a rare craniofacial fissure in association with hypertelorbitism and other deformities suggestive of hemicraniofacial microsomia. He had a monstrous appearance, and had been referred to the hospital by the healthcare system of the state of Goiás. The clinical examination that had been carried out was described in details, and included orbital and ocular deformities, increased orbital distance (hypertelorism), absence of nasal fossae and labial filtrum, duplication of the tip of the nose, ogival palate, and maxillary deformity. Supplementary exams (laboratory and radiological) were also presented in details.

When questioned about the most adequate form of treatment for that case, Dr. Psillakis said that at that time there was not a form of treatment available that could bring a satisfactory result, even after being insistently questioned by the committee composed of renowned surgeons. This episode was very important to Dr. Psillakis's career, and at that occasion he imagined that some day medicine would allow the treatment of patients with such severe congenital deformities – however, he did not imagine that that would not take much longer.

In the following year (1967), all the world became aware of the fantastic presentation carried out by Paul Tessier during the Fourth Annual Congress of the International Confederation of Plastic Surgeons, held in Rome. Still in the same year, Dr. Psillakis had access to Dr. Tessier's publications in volume 12 of *Annales de Chirurgie Plastique*. For the first time in the history of medicine, plastic surgery teams (Dr. Paul Tessier) and neurosurgery teams (Dr. Gerard Guiot) worked in association to treat congenital craniofacial deformities (such as hypertelorbitism) using an intracranial access route.

"It was just like a light at the end of the tunnel," said Dr. Psillakis, immediately remembering the patient he had met one year before on that practical

examination (the patient had been dismissed and went back to the state of Goiás). Dr. Jorge Psillakis sent a copy of the article to Dr. Walter Carlos Pereira, who had graduated with him and had become a specialist in neurosurgery. Dr. Pereira got very interested in the development of that work. The first surgeries of Dr. Psillakis and Dr. Pereira were carried out in patients presenting nasoethmoidal meningoencephalocele. The surgeons had the opportunity to operate five cases together, which provided them with a good notion of the advantages granted by the combined treatment of the nasoethmoidal area, both in terms of anatomy and integration between the two surgical teams.

Along two years (1968/1969), Dr. Psillakis operated several patients with increased interorbital distance (telecanthus) using Converse's technique, thus refining his experience and better preparing him for the intracranial operation of that case of hypertelorbitism. He undertook several intracranial training sessions at the laboratory of anatomy of the university, using fresh corpses, so as to become aware of all possible details and get ready to perform the technique in his first patient, which effectively – and successfully – occurred in 1970.

Here we transcribe (translated into English) an excerpt that can be found in the preface of his book entitled *Cirurgia craniomaxilofacial: osteotomias estéticas da face (Craniomaxillofacial surgery: esthetic facial osteotomies)*: "I still remember how surprised I felt the first time I mobilized the orbits of a corpse using the cranial access route. My admiration for Paul Tessier reached its apex, due to the logic of his reasoning when he decided to carry out an operation like that, so complex but at the same time so simple, from a certain point of view – it is just like Columbus's egg."

According to historical records, this was the first surgery performed in Latin America for the treatment of hypertelorbitism. In addition to the pioneer reports of Tessier in the year 1964, similar descriptions of this type of surgery were made only by Converse in the United States and by David Mathews in England. The procedure contributed to increase the self-confidence of Dr. Psillakis's surgical team, which then decided to operate several patients with craniofacial fissures, craniofacial dysostosis (Crouzon's and Apert's syndrome), in addition to sequelae from craniofacial fractures. They also decided to carry out maxillomandibular osteotomies for the treatment of dentofacial deformities.

In 1972, Dr. Psillakis defended a dissertation on craniofacial surgery at the School of Medicine of Universidade de São Paulo. In 1973, he was invited



by Mr. Antonio Ermírio de Morais to create a service of plastic surgery at Hospital da Beneficência Portuguesa de São Paulo, and created the Institute for Human Rehabilitation, a multidisciplinary entity that included professionals from several specialties, such as plastic surgery, neurosurgery, ophthalmology, otorhinolaryngology, medical genetics, orthodontics and maxillary orthopedics, clinical dentistry, speech therapy, psychology, and social assistance.

Due to the publication of several studies developed by Prof. Psillakis, his name became known worldwide. The use of monoblock craniofacial advancement in patients with Crouzon's syndrome was presented in 1976 at a congress held in Quito, Ecuador (Congresso Ibero-latinoamericano). This important modification to the traditional technique was almost simultaneously proposed by Fernando Ortiz-Monasterio, and spread all over the world. In addition, Dr. Psillakis started to develop an important work with skull bone grafts using the bipartition technique in craniofacial reconstruction procedures. He described his technique in a manuscript published in *Plastic and Reconstructive Surgery* in 1979. Also almost simultaneously, a very similar publication by Paul Tessier, about the same theme, was being issued.

As it is known to occur in any scientific field, innovative techniques are often developed simultaneously in different parts of the world, with the obtainment of similar results and conclusions. However, the authorship of the discovery always relies on the one who first publishes an article about the theme, and also depends on the importance of the journal to the scientific community. So, simultaneous studies and publications were very common in this period of rapid development of the craniomaxillofacial specialty.

Several studies were published by Dr. Psillakis and his residents in the 80s, such as those on the use of vascularized cranial and galeal flaps for craniofacial reconstruction (awarded at the International Congress of Plastic Surgery); technical modifications to maxillary osteotomies (with the inclusion of self-stability in cases of Binder's syndrome); nasofrontal osteotomy for cases of nasoethmoidal meningoencephalocele; modifications to Tessier's technique for cases of hypertelorbitism (with the maintenance of a central T); and pioneering works on craniofacial esthetic surgery, such as subperiosteal rhytidoplasty.

**Edgard Alves Costa** was born on February 21st, 1934, in the city of Niterói, state of Rio de Janeiro, and graduated in Dentistry in 1959 from Faculdade de Farmácia e Odontologia do Rio de Janeiro, also located

Niterói. He started his professional career with minor oral surgery and prosthesis activities. Soon after his graduation, Dr. Edgard became a professor of Surgery at the same college.

In spite of Dr. Edgard's great interest in surgery, his knowledge was limited due to his educational background. Text books such as those of Dingman & Natvig, Kazanjian & Converse, and Thoma formed his basis for the obtainment of further knowledge in the field of bucomaxillofacial surgery, which started to consolidate in the United States and in some European countries, such as France, England, and Germany.

In the year of 1961, Dr. Edgard informally met a young physician called Ronaldo Pontes, who was also from Niterói and was taking a training course in plastic surgery with Prof. Ivo Pitanguy. They became friends, were practically the same age, and Dr. Pontes invited Dr. Edgard to attend a surgical procedure he would perform the following week at Hospital Universitário Antonio Pedro. Dr. Edgard accepted the invitation, participated in the surgery as Dr. Pontes's assistant, and then decided to join the team definitively.

Together, Dr. Edgard and Dr. Pontes started to operate patients with facial fractures, and it was in these cases that Dr. Edgard was able to show his talent for surgery. The first case he operated consisted of a patient with a mandibular fracture caused by a run-over accident, and his previous study of those books was of paramount importance to the decision on what surgical technique to use. Intermaxillary blocking was carried out using Kazanjian's odontosynthesis, in addition to steel wire osteosynthesis following manual bone perforation (using a fine drill).

Dr. Edgard had the opportunity to participate with Dr. Ronaldo Pontes in the treatment of patients who had been victims to the burn episode occurred at Gran Circo Norte-Americano on December 17th, 1961, in Niterói. That occasion involved several skin graft



Treatment of burn victims (December 1961)

procedures and dressings carried out under general anesthesia at Hospital Universitário Antonio Pedro and at Hospital Infantil Getúlio Vargas. The dedication of these two professionals to reconstructive surgery was becoming stronger and stronger.

In the next year, Dr. Edgard was introduced to Prof. Ivo Pitanguy by Dr. Ronaldo Pontes during a lecture on cleft lip and palate delivered by the eminent plastic surgeon. Soon after that, still in 1962, Dr. Edgard was invited by Prof. Ivo Pitanguy to visit the service of plastic surgery at Santa Casa de Misericórdia (38th ward), which had been operating for the last seven years, and the Ivo Pitanguy Clinic, which was to be opened in the following year (1963).

The first patients of Prof. Pitanguy who were operated by Dr. Edgard had mandibular prognathism and facial fractures. From this moment on, Dr. Edgard would routinely treat patients with congenital and acquired deformities of facial skeleton referred by Prof. Pitanguy, who was impressed by the surgical skills of the young dental surgeon and encouraged him to take a degree in Medicine.

Edgard Costa, who had achieved the best score in the admission exam for the course of Dentistry, had also achieved the fifth best score for the course of Medicine at Universidade Gama Filho. He was part of the first group of students who graduated from the medical school of that university, in 1969. However, in the middle of the course, Edgard was transferred to Universidade Federal Fluminense, and it took him seven years to complete graduation, which finally happened in 1970. During this period, Dr. Edgard Costa treated and operated patients in the evenings or on Saturdays (all day long).



Dr. Edgard Alves Costa

He skillfully and creatively managed the area of facial fractures and developed several techniques in traumatology. His knowledge of physiopathology of facial fractures always surprised even the most experienced surgeons, forcing them to review some concepts of treatment. Since 1962, for instance, based on the lessons of Dingman & Natvig in their famous book entitled *Surgery of Facial Fractures*, Edgard Costa developed the technique of open reduction of condylar fractures and steel wire osteosynthesis. Also in the beginning of the 60s, he developed a helmet for skeletal fixation aimed at providing immobilization of the middle third of the face – this helmet contradicted what had been described by

Crawford. The device was modified and named the Costa-Pitanguy helmet in the mid 70s.

Dr. Edgard Costa founded a medical school in Rio de Janeiro as part of the service of craniofacial surgery at Beneficência Portuguesa, in Niterói. He was invited to take on such task in 1969. The building of the hospital took more than three years, and the service effectively started operations in the beginning of 1973. At that school, Dr. Edgard has been providing the specialization of surgeons for the last 30 years. It is the oldest training center in our country and has been operating nonstop since its foundation.

**Silvio Antonio Zanini** was born on February 10th, 1938, and graduated in Dentistry from Pontifícia Universidade Católica do Rio Grande do Sul in 1962. As he had achieved the best admission score for a course on bucomaxillofacial surgery and traumatology, he was indicated to be an intern in this area at Hospital de Pronto-Socorro Municipal de Porto Alegre. Afterwards, he was approved in a contest for admittance to this same hospital.



Dr. Silvio Antonio Zanini

Later on, Prof. Zanini graduated in Medicine from Universidade Federal do Rio Grande do Sul in 1970 and specialized in Plastic Surgery at Prof. Antonio Estima's service. Dr. Zanini had previously been an intern in services of other specialties, such as otorhinolaryngology, neck and head surgery, intensive therapy and neurosurgery. His interest for craniofacial surgery was a natural consequence of the professional relationship he had with specialists in traumatology and neurosurgery. He has been a professor in the Graduate Program of Bucomaxillofacial Surgery and Traumatology at Pontifícia Universidade Católica do Rio Grande do Sul; he was one of the founders and is currently the coordinator of the service of craniofacial surgery at Hospital de Neurocirurgia (Neurosurgery Hospital), at Santa Casa de Misericórdia de Porto Alegre; and he is currently the head of Instituto de Cirurgia Craniofacial de Porto Alegre (Institute of Craniofacial Surgery from Porto Alegre).

In 1973, Dr. Zanini came across two patients, one with Crouzon's syndrome and the other with hypertelorbitism, and he sought the help of Dr. Jorge Psillakis in São Paulo. They operated the two patients together, so that Dr. Zanini had the opportunity to learn the intracranial techniques. In his turn, Dr. Psillakis learnt a lot about bucomaxillofacial surgery techniques with Dr. Zanini.



Dr. Zanini was the one who introduced Dr. Psillakis to Dr. Edgard Costa (who lived in Rio de Janeiro at the time and was a renowned specialist in facial traumatology). For this reason, Dr. Zanini can be considered as the catalytic agent of the process that led to the development of craniofacial surgery in our country, which happened in the scientific meetings that started in 1974.

In August 1989, Dr. Zanini was invited by the directors of one of the most important centers for the treatment of fissures in Brazil, namely Centrinho de Bauru, to design and coordinate a craniofacial surgery unit. At that opportunity, the hospital was transformed into a center (rehabilitation hospital) aimed at the treatment of craniofacial anomalies. Activities performed by the craniofacial surgery staff are still organized as one-week long modules. Assessment is continuous and, by the end of each module, a global analysis is made.

Psillakis wrote the following excerpt about Dr. Zanini:

"Like Paul Tessier, Silvio Zanini devoted his body, mind and soul to this specialty, which became the reason for his professional life. With his creativity and dedication, he contributed with techniques that not only simplified – but also improved – final results for patients. His enthusiasm influenced many professionals who are currently leaders in their respective states. And he continues to encourage many doctors to follow craniofacial surgery such a complex specialty. In sum, he is a leader and an incentive for the youth."

In 1985, at 48 years of age, Dr. Zanini was affected by a degenerative neurological disease called amyotrophic lateral sclerosis. Even with this difficulty, he has been coordinating the department of craniofacial surgery at Centrinho de Bauru. The creation of the department was so important that the hospital's name changed to Hospital for the Rehabilitation of Craniofacial Anomalies (Hospital de Reabilitação das Anomalias Craniofaciais).

Dr. Zanini has written several books, both on craniofacial surgery and on his personal experience with the disease, aimed at patients and relatives. Some examples include *Entrelinhas da vida* and *ELA e eu*. In addition, he has published a short story book entitled *Apenas pequenos detalhes*.

**Melchiades Cardoso de Oliveira** was born in Cedral (São Paulo), on March 22nd, 1926. He graduated in Medicine from Universidade Federal do Rio de Janeiro in 1952. He was an intern in the field of general surgery at Baltimore City Hospital in Maryland (USA) from 1953 to 1954.

When he returned to Brazil, he moved to São José do Rio Preto (also in the state of São Paulo) and worked

at Santa Casa de Misericórdia as a general surgeon. Soon after, he started working with plastic surgery (1956) and was put in charge of the service (he had also helped to found it). He also created the Clínica de Cirurgia Plástica de São José do Rio Preto (Plastic Surgery Clinic of São José do Rio Preto), which was located downtown but received patients from the surrounding towns. At the clinic, a great number of patients with facial fractures and congenital deformities, such as prognathism, were treated.

Dr. Melchiades made great contributions to the development of the specialty in our country, with his enthusiasm in organizing scientific meetings and in publishing several papers (especially on facial traumatology). Dr. Melchiades actively attended the first meetings on craniofacial surgery, which were organized by a small and selected group of surgeons from the Brazilian Society of Plastic Surgery in the beginning of the 70s.

Dr. Melchiades was the treasurer of the Brazilian Society of Plastic Surgery, and became its president some time later (1983/1984). Besides, he had been a founding member of some chapters, such as the Chapter of Burn and Craniofacial Surgery, and was a pioneer in the field of plastic surgery in the countryside of the state of São Paulo. He dedicated 40 years of his professional life to the treatment of patients from São José do Rio Preto, where he died in June 1997.

**José Marcos Mélega** graduated in Medicine from Escola Paulista de Medicina. He was a resident in general surgery at Hospital Santa Cruz under the supervision of his father, Prof. Henrique Mélega. According to Raul Loeb, a renowned plastic surgeon, "Dr. Henrique Mélega helped his younger classmates improve their knowledge on general surgery."

Afterwards, Dr. José Mélega became a resident in plastic surgery at the Hospital of Facial Defects, and was one of the first residents to work with Prof. Paulo de Castro Correa. Concerning his graduate curriculum, Dr. José Mélega was a visiting fellow of professor John Marquis Converse (USA) and of Ivo Pitanguy (Rio de Janeiro).

From 1970 on, Dr. José Marcos Mélega restructured the service of plastic surgery of Hospital Santa Cruz and organized a multidisciplinary team, which included specialists in Dentistry (Dr. Ralf Rode and Dr. Lucy Dalva Lopes) and in Speech Therapy (Lidia D'Agostino).



Dr. José Marcos Mélega

In 1976, Dr. Mélega worked in association with Dr. Jorge Psillakis so as to organize scientific meetings that would significantly contribute to the development of the specialty in our country. These meetings became a routine activity from 1974 on and gave raise to an important developing phase, which lasted until 1986. The meeting that marked the beginning of this phase was the Brazilian Congress on Plastic Surgery, which was held in parallel with other meetings in the field of craniofacial surgery – these ones were also organized by the Brazilian Society of Plastic Surgery.

According to Dr. Zanini's report, "an environment of friendship and respect involved everybody, in spite of the intense discussion of the techniques presented. Criticism was always firm and honest, though constructive, once the main objective of those meetings was to make the specialty develop."

This warm and at the same time respectful scientific meetings, since their very beginning, included the presence of Oswaldo de Castro, Jorge Psillakis, Edgard Costa, Silvio Zanini, José Marcos Mélega, Melchiades Cardoso de Oliveira, among others. Several residents of these renowned surgeons, showing enthusiasm with the specialty, learnt the importance of attending these meetings and getting together so as to exchange reports of situations experienced at different services, discuss new surgical techniques and treatment results. Other professionals, from other specialties, also contributed substantially to the growth of the specialty.



Alberto Tadeu Luiz, Diógenes Rocha, Fausto Viterbo, Gilvani Azor Cruz, José Carlos Ferreira, Luiz Carlos Manganello de Souza, Luiz Francisco da Fontoura, Mariângela Santiago, Nivaldo Alonso, Paulo Mateó Santana, Paulo Hvenegaard, Paulo Roberto Mello Gomes, Ricardo Lopes da Cruz, Roberto Godoy (neurosurgeon), Sérgio Moreira da Costa, and Vera Cardim were some of the ones who attended these meetings carried out the 80s, which resulted in the foundation of the Craniofacial Chapter of the Brazilian Society of Plastic Surgery.

**Cássio Menezes Raposo do Amaral** specialized in plastic surgery in France, in the beginning of the 70s. He came back to Brazil in 1975 and since then started to treat patients presenting facial deformities with a multidisciplinary approach, at Universidade Estadual de Campinas (UNICAMP). Still in 1975, Dr. Joseph McCarthy, currently chief of the Institute of Reconstructive Plastic Surgery of the New York University Medical Center, visited Brazil, and was able to take part in the I International Course on Craniofacial



Dr. Cássio Menezes Raposo do Amaral

Surgery held at UNICAMP, where over 100 surgeons were present. In this I Course, the first craniofacial surgeries to be carried out in Campinas were planned (SP), and this planning section included the presence of professors from the Neurosurgery Department of Universidade de São Paulo.

In the following year (1976), Dr. Amaral had already prepared the best multi- and inter-disciplinary team for the treatment of craniofacial deformities, and started to carry out surgical procedures using the intracranial access route. Also in 1976, the II Course was prepared, and about 250 professionals attended it. The foreign guests for this edition were Dr. Donald Woodsmith (plastic surgeon) and Dr. Peter Coccaro (orthodontist), from the Institute of Reconstructive Plastic Surgery of the New York Medical Center, USA, and Dr. Kitaro Ohmori, from the Metropolitan Police Medical Center, in Japan. In this course, in addition to the theoretical part, four important surgeries were carried out and transmitted to the auditorium.

The III Course was held in 1978, and Henry Kawamoto, from the University of California at Los Angeles (UCLA), USA, was the foreign guest to perform conferences, consultations with selected patients, and surgeries.

The creation of Sociedade Brasileira de Pesquisa e Assistência para Reabilitação Craniofacial – SOBRAPAR (Brazilian Society of Craniofacial Rehabilitation Research and Assistance) had been Dr. Amaral's dream since his return to Brazil. He was already involved in clinical and experimental studies being developed in association with other departments from several Brazilian and foreign institutions, and was aware of the many difficulties that the project would face. However, in spite of these difficulties, in 1979 Dr. Amaral made his dream come true and founded



SOBRAPAR, aimed at providing assistance, research and teaching in the field of craniofacial rehabilitation. The opening ceremony was conducted by Dr. John Marquis Converse, then chief of the Institute of Reconstructive Plastic Surgery of the New York University Medical Center and President of the Institute



*Dr. John Marquis Converse*

for the Rehabilitation of Facially Disfigured – by that time, he was considered by many people as the most important character in North-American plastic surgery.

In the same year (1979), the IV Meeting was once more attended by Dr. Kawamoto and also by Dr. Anthony Wolfe, from the University of Miami, USA. In a ceremony that was held on March 1st, 1979, Prof. Converse opened the doors of SOBRAPAR to the beginning of an important work.

These meetings were held periodically in the 80s and managed to bring the most important specialists in craniofacial surgery in the world to Brazil. However, the apex of international integration was achieved with the associate work of Brazilian craniofacial surgery centers with others from Paris, Los Angeles, Miami, and New York. Dr. Cássio Amaral was undoubtedly the one who allowed for Brazilian teachers and residents to have the opportunity to take part in short-term exchange programs with great centers of craniofacial surgery located all over the world.

The V Meeting, in the year of 1980, was historic because it counted on the presence of Paul Tessier (on his third trip to Brazil), and once more with the presence of Dr. Kawamoto and Dr. Wolfe. At this occasion, 38 patients were examined, 11 conferences were presented, and eight patients were operated (mean operative time: seven hours). As the scientific meetings had significantly increased in importance by the end of the 70s, the VI Meeting, in 1981, and the subsequent ones, started to be called International Symposium on Plastic Surgery. In the 1981 edition, 52 patients were assessed, 20 conferences were presented, and 13 patients were operated. In 1983, in the VII Symposium, 65 patients were examined, 16 conferences were presented, and six patients were operated.

In order for SOBRAPAR to build an autonomous healthcare center, several national and foreign foundations and institutions were sought with the aim of raising funds. The necessary amount of money was

finally granted by Lateinamerika Zentrum, located in Bonn (Germany). The President of the institution, Mr. Hermann Goergen, was then the coordinator of cooperation projects to be carried out in Latin American countries, and got interested in the proposal presented by Dr. Amaral.

The construction site chosen is close to the campus of UNICAMP. With the aid of Mr. Abraham Kasinski, Director/President of the COFAP group and Honorary President of SOBRAPAR, another large piece land was acquired for the construction of the Center for Craniofacial Plastic Surgery, just next to the Zeferino Vaz University City. Construction started in 1988; the outpatient clinic got ready in February 1990; finally, on February 20th, 1991, the first surgery was carried out at SOBRAPAR's hospital, which was named Hospital of Craniofacial Plastic Surgery.



SOBRAPAR was built on a piece of land that is 7,000 square meters large, and currently constitutes one of the largest hubs for the development of the specialty in our country, including sectors of plastic surgery, orthodontics, psychology, speech therapy, computer sciences, neurology, genetics, pediatrics and bucomaxillofacial prosthesis. With this dimension, SOBRAPAR is currently the greatest Lateinamerika Zentrum project in the European Economic Community in South America.



*Edgard, Zanini and Psillakis*

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# THE BRAZILIAN SOCIETY OF CRANIOMAXILLOFACIAL SURGERY

Ricardo Lopes da Cruz, MD, TCBC<sup>1</sup>; Edgard Alves Costa, CD, MD<sup>2</sup>

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The history of the Brazilian Society of Craniomaxillofacial Surgery starts with the foundation of the Craniomaxillofacial Surgery Chapter, a section of the Brazilian Society of Plastic Surgery.

## FOUNDATION OF THE CHAPTER

In 1977, during the Brazilian Congress of Plastic Surgery, in Rio de Janeiro, some members who were interested in maxillofacial surgery and traumatology felt the need for the creation of a Craniofacial Surgery Chapter within the Society. At that occasion, the President of the Brazilian Society of Plastic Surgery was Dr. Raul Couto Sucena, who participated in the meeting aimed at deciding on the foundation of the Chapter.

Dr. Jorge Miguel Psillakis was the first name indicated as the head officer of the Chapter. The remaining participants of this historic meeting were, in alphabetical order: Dr. Edgard Costa (Rio de Janeiro), Dr. José Badim (Rio de Janeiro), Dr. José Marcos Mélega (São Paulo), Dr. Melchiades Cardoso de Oliveira (São Paulo), Dr. Oswaldo de Castro (São Paulo), Dr. Silvio Zanini (Rio Grande do Sul), and Dr. Walmor Feijó (São Paulo).

In the records of this meeting, Dr. Jorge Psillakis reported the presentation of a draft of the potential statute of the Chapter to the President of the Brazilian Society of Plastic Surgery; this statute was written taking into consideration the statute and by-laws of the Society. An initial concern of the Chapter was to make it possible for bucomaxillofacial surgeons who did not dedicate themselves to plastic surgery to affiliate with the Society through the Chapter.

In fact, this concern was also related to specialists in neurosurgery, who started to participate more actively in this type of surgery in the 70s. Dr. Sucena proposed that these surgeons be affiliated as "related members", giving them the right to be members of the Chapter and even to be elected to the board of directors. This was accomplished in the form of a change made to the statute of the Brazilian Society of Plastic Surgery.

The proposal was unanimously accepted and approved, and Dr. Jorge Psillakis was put in charge of the presentation of the definitive statute of the Chapter in the following year's congress (1978, São Paulo). In addition, Psillakis would prepare a list of founding members and active members. The President of the Society then suggested that the 1978 congress included a craniomaxillofacial surgery session and course on the subject, similarly to what was usually done by the other chapters.

In the following year, the President of the Brazilian Society of Plastic Surgery was Dr. Ricardo Baroudi, and Dr. Jorge Psillakis sent the list of founding and active members as previously determined. The list of founding members included the following names:

Prof. Dr. Jorge Miguel Psillakis (São Paulo)  
Dr. Silvio Antonio Zanini (Rio Grande do Sul)  
Dr. Edgard Alves Costa (Rio de Janeiro)  
Dr. Melchiades Cardoso de Oliveira (São Paulo)  
Dr. Walmor Feijó (São Paulo)  
Dr. José Marcos Mélega (São Paulo)  
Dr. Oswaldo de Castro (São Paulo)

During the 1978 edition of the Brazilian Congress of Plastic Surgery, held at Hilton Hotel, in São Paulo, an important meeting of the Craniomaxillofacial Surgery Chapter took place. This meeting counted on the presence of all founding members and also of Dr. Gilvani Azor de Oliveira Cruz (Paraná) and Dr. José Carlos Rezende Alves (Minas Gerais). Dr. Jorge Psillakis introduced the statute of the Chapter to the members that were present (already after the approval by the Council of the Brazilian Society of Plastic Surgery). The list of active members was made up during this meeting.

<sup>1</sup> Member, Brazilian Society of Plastic Surgery. Member, Brazilian Society of Head and Neck Surgery. President, Brazilian Society of Craniomaxillofacial Surgery. Member, Federação Ibero Latinoamericana de Cirurgia Plástica y Reconstrutiva. Member, AO Alumni Association. Correspondence to: Rua Visconde de Silva, 52/1004, 22271-090, Botafogo, Rio de Janeiro, RJ, Brazil. Phone: +55-21-2266-4770. E-mail: ricardolopescruz@terra.com.br.

<sup>2</sup> Member, Brazilian Society of Plastic Surgery. Member, Brazilian Society of Craniomaxillofacial Surgery. Professor, Bucomaxillofacial Surgery, Universidade Federal Fluminense. Head, Service of Craniomaxillofacial Surgery, Hospital Santa Cruz da Beneficência Portuguesa de Niterói, Rio de Janeiro. Adviser, Craniomaxillofacial Surgery, Clínica Ivo Pitanguy



with the help of colleagues from other states of Brazil. The following names were included:

- Dr. Carlos Homero Gomes Cabral dos Anjos  
(Pernambuco)  
Dr. Gilvani Azor de Oliveira e Cruz (Paraná)  
Dr. Marcelo Miranda (Pernambuco)  
Dr. Waldemar Mano Sanches (São Paulo)  
Dr. Cássio Menezes Raposo do Amaral (São Paulo)  
Dr. José Badim (Rio de Janeiro)  
Dr. José Carlos Daher (Distrito Federal)  
Dr. José Guilherme Carvalho França (Bahia)  
Dr. Francisco das Chagas Ley (Ceará)  
Dr. Edson Dias Tannus (Goiás)  
Dr. José Carlos Rezende Alves (Minas Gerais)

One of the foreign professionals who attended that congress was Dr. Linton Whitaker, an internationally renowned expert on craniofacial surgery. One of the scientific activities preceding the congress agenda consisted of a round-table on fractures of the mid third of the face, which counted on the presence of Dr. Edgard Costa and Dr. José Badim, from Rio de Janeiro, in addition to Dr. Whitaker. The presentation of Dr. Edgard Costa at that occasion was memorable, and the results of his study impressed all participants. One of the highlights of his presentation was the use of a Costa-Pitanguy skeletal fixation helmet, which was presented as an extremely important resource in the fixation of multiple fractures of the facial fixed skeleton and also in the prevention of sequelae, such as retrusion and shortening of the mid third of the face.

In 1978, as already mentioned, Dr. Ricardo Baroudi was the President of the Brazilian Society of Plastic Surgery, and Dr. Ivo Pitanguy was the First Vice President. In a letter written on June 12th, 1978, Dr. Baroudi says to Dr. Jorge Psillakis:

"This letter aims at officializing your nomination for the position of President of the Craniomaxillofacial Surgery Chapter of this Society, together with your colleague, Dr. José Marcos Mélega, during the period of 1978 to 1980.

Your contribution to this Society is highly significant, in view of the importance of your Chapter in the field of plastic surgery.

We count on your organization and hard-working skills to pursue the objectives of the specialty and of the Society both nationally and internationally.

We thank you very much for your valuable collaboration."

On the same day, Dr. Baroudi wrote another letter to Dr. José Marcos Mélega and Dr. Jorge Miguel Psillakis, welcoming them to the group they were now part of and convoking them to a meeting that would count on the presence of all commissions and chapters of the Society. The meeting would analyze the addition

of eventual projects to the two-year management program of that board of directors.

The convocation of all segments of the Society for that meeting was a result of Dr. Baroudi's concern with the performance of an "integrated scientific and administrative program in all areas." The meeting was held on July 28th, 1978. In addition to the recently created Craniomaxillofacial Chapter, the following other chapters (and respective officers) made part of the Society:

1. Burn Chapter - Dr. Telmo Marques Weber
2. Tumor Chapter - Dr. Benjamin Goldman and Dr. Raul Couto Sucena
3. Hand Surgery Chapter - Dr. José Francisco Wechsler
4. Esthetic Surgery Chapter - Dr. Ruy Ribeiro Vianna

In the statute of the Craniomaxillofacial Surgery Chapter, chapter I, article 1, item d, there was a recommendation to "intensify the relationship with medical specialties related to craniomaxillofacial surgery, such as otorhinolaryngology, ophthalmology, neurosurgery, head and neck surgery, and odontological specialties, such as orthodontics, bucomaxillofacial surgery, etc."

## THE FIRST COURSES HELD BY THE CHAPTER

Another concern of the officers of the Chapter was related to the performance of two annual courses to be held in different Brazilian states for the exchange of knowledge among specialists. The first course took place in the second semester of 1978, in Niterói, state of Rio de Janeiro, under the coordination of Dr. Edgard Costa, who was elected secretary of the Chapter for the first two years. The second course occurred in 1979, in Fortaleza, state of Ceará, under the coordination of Dr. Germano Riquet, who had a special admiration for this group of surgeons who showed such an enthusiasm for the new specialty.

The main objectives of these meetings were:

- 1) To divulge news about the specialty (plastic surgery) in the medical community.
- 2) To exchange ideas with specialists from several areas.
- 3) To establish the position of the specialty in relation to medical, odontological societies, and health authorities, mainly in areas where litigations concerning the professional qualification of people working with specialty are common (odontological/medical professionals).

The first course organized by the Chapter was denominated 1st Brazilian Symposium of Craniomaxillofacial Surgery, and was held in Niterói, state of Rio de Janeiro, on December 1st and 2nd, 1978, under the coordination of Dr. Edgard Alves Costa. Fávio Sturla, an Argentinean plastic surgeon whose investigations focused on the pathophysiology of facial fractures, was invited from abroad.

The scientific program was designed as follows:

**December 1st, 1978**

**Course on Craniofacial Traumatology**

- Radiological interpretation of facial fractures - Dr. Edgard Alves Costa (Rio de Janeiro)
- Pathophysiology of facial fractures - Dr. Flávio Sturla (Argentina)
- Mandibular fractures - Dr. Melchiades Cardoso de Oliveira (São Paulo)
- Malar fractures - Dr. Jorge Alberto Coelho (Rio de Janeiro)
- Fractures of the mid third - Dr. Sinézio de Souza Filho (Dr. Edgard's Resident - Rio de Janeiro)
- Naso-orbital fractures - Dr. Silvio Zanini (Rio Grande do Sul)
- Sequelae from mandibular fractures - Dr. Melchiades C. Oliveira
- Sequelae from mid third fractures - Dr. Edgard Costa
- Sequelae from naso-orbital fractures - Dr. José Marcos Mélega (São Paulo)

**December 2nd, 1978**

**Round-table I - Prognathism**

- Moderator: Dr. Flávio Sturla
- Participants:
  - Dr. Oswaldo de Castro (São Paulo)
  - Dr. José Carlos Daher (Distrito Federal)
  - Dr. Silvio Zanini
  - Dr. Edgard Costa

**Round-table II - Craniofacial Fissures**

- Moderator: Dr. Oswaldo de Castro
- Participants:
  - Dr. Ricardo Baroudi (São Paulo)
  - Dr. Vera Lucia Nocchi (Dr. Psillakis's Resident - São Paulo)
  - Dr. Adolfo Carlucci (Dr. Psillakis's Resident - São Paulo)
  - Dr. Jorge Psillakis (São Paulo)

**Round-table III - Cleft Lip and Palate**

- Moderator: Dr. Jorge Psillakis
- Participants:

- Dr. Ronaldo Pontes (Rio de Janeiro)
- Dr. Cláudio Rebello (Rio de Janeiro)
- Dr. José Marcos Mélega
- Dr. Germano Riquet (Ceará)

**Round-table IV - Bone Grafts**

- Moderator: Dr. Ricardo Baroudi
- Participants:
  - Dr. Edgard Costa
  - Dr. Silvio Zanini
  - Dr. Ataliba Belizzi (head and neck surgery - Rio de Janeiro)
  - Dr. Flávio Sturla

The second course was entitled 2nd National Meeting of Specialists in Craniomaxillofacial Surgery, and was held on August 17th and 18th, 1979. The program is described below:

**August 17th, 1979**

**Course on Craniofacial Traumatology**

- Assessment and diagnosis of facial traumatism - Dr. Rolando Zani (São Paulo)
- Treatment of teguments in cases facial traumas - Dr. Melchiades Cardoso de Oliveira (São Paulo)
- Pathophysiology of facial and craniofacial fractures - Dr. Oswaldo de Castro (São Paulo)
- Orbital fractures - Dr. Edson M. Nóbrega (Ceará)
- Mid third fractures - Dr. Jaime M. Nogueira
- Mandibular fractures - Dr. Melchiades Cardoso de Oliveira
- Complex facial fractures - Dr. Ricardo Cruz (Dr. Edgard's Resident - Rio de Janeiro)
- Sequelae from naso-orbital fractures - Dr. José Marcos Mélega (São Paulo)
- Sequelae from mid third fractures - Dr. Edgard Alves Costa (Rio de Janeiro)

**August 18th, 1979**

**Course on Facial Esthetic Osteotomies**

- Mandibular osteotomies - Dr. Oswaldo de Castro
- Maxillary osteotomies - Dr. Edgard Alves Costa
- Combined maxillomandibular osteotomies - Dr. Jorge Psillakis (São Paulo)
- Surgical treatment of facial paralysis - Dr. Rolando Zani

According to the records, both meetings did not have financially positive results, in spite of the support provided by the Brazilian Society of Plastic Surgery. All lecturers were financially responsible for their own expenses.



On the other hand, both meetings provided opportunities for the discussion of problems related to the specialty - all decisions were invariably submitted to the approval of the founding members of the Chapter.

Since that time, the members thought of producing an itinerant course that would focus on the basic principles of craniomaxillofacial surgery and would have one coordinator for each theme (always a member of the Chapter), with relatively standardized schedule and syllabus. The original idea was to organize courses lasting for two or three days, with a minimum of five classes on traumatology, two on facial osteotomy, and two on craniofacial osteotomy. Eventually, a practical course could also be organized.

At the end of that two-year management period, another officer had to be elected. This was Dr. Silvio Zanini. On the manuscript letter informing the nomination of Dr. Zanini for the position, Dr. Mélega wrote: "I am sure that you will grant the Chapter the development it deserves."

So, in the years of 1980 and 1981, the officer of the Craniomaxillofacial Chapter of the Brazilian Society of Plastic Surgery was Silvio Antonio Zanini, from the state of Rio Grande do Sul.

## THE CONTRIBUTION OF ZANINI

The year of 1980 was very active in the Chapter, and several polemic subjects were addressed.

Dr. Raul Couto Sucena was the Secretary of Comitê Iberolatinoamericano de Prevención y Asistencia de Las Quemaduras and suggested to Dr. Vladimir Távora Fontoura Cruz, the future President of the Executive Commission of the 17th Brazilian Congress on Plastic Surgery (held in Fortaleza, Ceará, November 23rd to 28th, 1980), that a parallel section on bucomaxillofacial surgery were performed, so as to include the participation of physicians and dentists.

Dr. Vladimir wrote a letter to Dr. Zanini asking his opinion. The answer (July 15th, 1980) was as follows:

"(...) according to the opinion of most members of the Craniomaxillofacial Chapter of the Society: (...)

The Chapter is an official part of the Society; therefore, its activities should be included in the official program, and never be held in parallel.

The current policy of the Chapter is to promote the development of craniomaxillofacial plastic surgeons and at the same time to extend knowledge about the specialty to all those who are interested in it, reinforcing its status as part of the field of plastic surgery."

Based on this firm position on the part of the Chapter's board of directors, the link of the Chapter to the

## The Brazilian Society of Craniomaxillofacial Surgery

Brazilian Society of Plastic Surgery in terms of philosophy and policy was strengthened. The participation of the Chapter in that congress occurred on November 25th, 1980, with the following round-table:

### Treatment of sequelae from fronto-orbito-nasal traumas

Moderator: Dr. Edgard Alves Costa (Rio de Janeiro)  
Zygomatic-maxillary sequelae - Dr. Cássio Raposo do Amaral (São Paulo)

Frontal sequelae - Dr. Melchiades Oliveira (São Paulo)  
Inter-orbito-nasal sequelae - Dr. José Marcos Mélega (São Paulo)

Reconstruction of the lacrimal ducts - Dr. Rafael de la Plaza (Spain)

Orbito-cranial sequelae - Dr. Silvio Zanini (Rio Grande do Sul)

Still in the same year, Dr. Zanini contacted Dr. Paulo de Castro Correa, from Hospital dos Defeitos da Face (Facial Defects Hospital, where Dr. Walmor Feijó and Dr. José Marcos Mélega used to work):

"(...) I would like to invite you, the head of one of the highest-quality scientific groups in the field of facial traumas, to develop a course aimed at plastic surgeons, to be held at your Hospital, under your direction, and with the coordination of the Craniomaxillofacial Chapter of the Brazilian Society of Plastic Surgery."

This was one of the several instances in which Dr. Zanini untiringly searched for the development of the specialty within the medical community along the whole period of his two-year management.

Still in the same period (1980/1981), an important meeting took place on June 2nd, 1980, in Brasília, with Dr. Jair Soares, who was then the Minister of Healthcare and Social Assistance. Dr. Silvio Zanini, Dr. Jorge Psillakis, Dr. Edgard Costa, Dr. José Carlos Daher, and The Society's lawyer, Dr. Paulo Sergio Freitas Ferreira, were also present. The aim of the meeting was to discuss medical honoraria, more

### Ministro da Previdência apoia Sociedade Brasileira de Cirurgia Plástica



Representando a comissão de Dr. Edgard Costa, Jorge Psillakis, Dr. Edgard Costa, Dr. José Carlos Daher e Dr. Paulo Sérgio Freitas Ferreira

No dia 2 de junho passado, uma comissão constituída pelos médicos Dr. Jorge Psillakis, Dr. Edgard Costa, Dr. José Carlos Daher e Dr. Paulo Sérgio Freitas Ferreira

dos seus respectivos. Tais reuniões visando exposição de ideias e propostas com frequência.

specifically those related to the performance of craniofacial surgical procedures, which were not considered as part of the specialty and were therefore erroneously attributed exclusively to dentists.

The 3rd Brazilian Meeting on Craniomaxillofacial Surgery also occurred in 1980, and was organized by Dr. Melchiades Cardoso de Oliveira, a founding member of the Chapter who was very active in the area of facial fractures in the countryside of the state of São Paulo (São José do Rio Preto), as well as one of the pioneers of the specialty in Brazil.

Finally, still in the same management period, with the help of Dr. Psillakis, in the years of 1980 and 1981, a rigorous study was started which focused on legal matters that affected physicians and dentists in the practice of the craniomaxillofacial specialty. In this particular aspect, the collaboration of Dr. José Costa Lima, from the Regional Council of Medicine of the state of Alagoas, was of paramount importance. After more than 20 years, this discussion is very polemic and under development still in the present days.

The officer of the Chapter in the years of 1982 and 1983 was Dr. Edgard Costa, who continued with the work that was started by his antecessor during the Presidency of Dr. Melchiades Cardoso de Oliveira at the Society. After that, the next elections for the board of the directors of the Chapter occurred only in 1988/1989, when Dr. Cássio Menezes Raposo do Amaral was nominated officer.

#### OFFICERS OF THE CHAPTER

- 1978/1979 - Dr. Jorge Miguel Psillakis and Dr. José Marcos Mélega (São Paulo)
- 1980/1981 - Dr. Silvio Antonio Zanini (Rio Grande do Sul)
- 1982/1983 - Dr. Edgard Alves Costa (Rio de Janeiro)
- 1984/1985 - Dr. Waldemar Mano Sanches (São Paulo)
- 1988/1989 - Dr. Cássio Menezes Raposo do Amaral (São Paulo)
- 1990/1991 - Dr. Paulo Sérgio Mateó Santana (São Paulo)
- 1992/1993 - Dr. Vera Lucia Nocchi Cardim (São Paulo)
- 1994/1995 - Dr. Paulo Hvenegaard (São Paulo)
- 1996/1997 - Dr. Luiz Francisco da Fontoura (São Paulo)
- 1998/1999 - Dr. Nivaldo Alonso (São Paulo)
- 2000/2001 - Dr. Marcus Vinicius Collares (Rio Grande do Sul)
- 2002/2003 - Dr. Max Domingues Pereira (São Paulo)

Dr. Paulo Mateó and Dr. Vera Cardim had been Dr. Jorge Psillakis's residents; Dr. Paulo Hvenegaard had been Dr. José Marcos Mélega's resident; and Dr. Luiz Fontoura had been Dr. Edgard Costa's resident. The appearance of these new generations of surgeons was a clear sign that the development of the specialty in our setting was assured.

In the years of 1986 and 1987, when the President of the Society was Dr. Juarez Moraes de Avelar (first management period), the members of the Chapter suggested that Dr. Waldemar Mano Sanches continued in the position of officer, since Dr. Edgard Costa, who had been elected, preferred to decline the indication due to the fact that he had already occupied that position.

#### THE BRAZILIAN SOCIETY OF CRANIOMAXILLOFACIAL SURGERY

The work of the Craniomaxillofacial Chapter as part of the Brazilian Society of Plastic Surgery allowed for several young physicians who were interested in the specialty of plastic surgery to discover the fascinating though difficult aspects involved in the area of reconstructive surgery.

The pioneers of the specialty (Psillakis, Zanini, Edgard Costa, Osvaldo de Castro, Mélega, and Melchiades) were practically an isolated group from about 1973/74 to 1977. However, from 1978 on, as part of the Brazilian Society of Plastic Surgery, the Chapter grew in importance and reputation, thanks to the help of those professionals already mentioned, who were included as active members of the Chapter (such as Cássio Raposo do Amaral and Gilvani Azor de Oliveira Cruz). From this point on, young professionals joined the group, such as Aulus Albano (São Paulo), Diógenes Laércio da Rocha (São Paulo), Fausto Viterbo (São Paulo), José Carlos Ferreira (São Paulo), Luiz Carlos Manganello de Souza (São Paulo), Luiz Francisco da Fontoura (Rio de Janeiro), Mariângela Santiago (São Paulo), Nivaldo Alonso (São Paulo), Paulo Hvenegaard (São Paulo), Paulo Roberto de Mello Gomes (São Paulo), Paulo Mateó Santana (São Paulo), Ricardo Lopes da Cruz (Rio de Janeiro), Robinson Grego Gonçalves (Espírito Santo), Sérgio Moreira da Costa (Minas Gerais), Sinézio de Souza Filho (Rio de Janeiro), Vera Lucia Nocchi Cardim (São Paulo), and Vespaziano Lopes de Farias (Espírito Santo).

The Craniomaxillofacial Chapter of the Brazilian Society of Plastic Surgery was founded in mid 1978, and the International Society of Craniofacial Surgery was



founded in mid 1983, only five years later. The 5th Congress of the International Society was held 10 years later, in 1993, in Oaxaca (Mexico), and was led by Dr. Fernando Ortiz-Monasterio. Several members of the Chapter attended this congress and reinforced the idea of founding a Brazilian Society of Craniomaxillofacial Surgery, thus promoting a greater integration between the several specialists involved in the field.

A fact that had long been observed was that surgeons from different areas but who were interested in the craniomaxillofacial specialty had the desire to make part of the same group or society, but did not want to affiliate with the Brazilian Society of Plastic Surgery, since plastic surgery was not their field of practice - rather, they were specialists in otorhinolaryngology, ophthalmology or neurosurgery, for example. In the year of 1980, Dr. Zanini, who was then the officer the Chapter, interceded with the Society so as to grant Dr. Edgard Costa the position of effective member of the Society, which was finally accomplished thanks to the help of Dr. Wilson Rubens Andreoni, who was then the Secretary of the Society. The President of that time was Dr. Ewaldo Bolívar de Souza Pinto.

#### THE FOUNDATION OF THE SOCIETY

The officer of the Craniomaxillofacial Chapter in the year of 1994 was Dr. Paulo Hvenegaard. Hvenegaard, accompanied by Sérgio Moreira da Costa, Gilvani Azor de Oliveira e Cruz, Luiz Francisco Souza da Fontoura, Marcus Vinicius Martins Collares, and Vera Lucia Nocchi Cardim, registered the Brazilian Society of Craniomaxillofacial Surgery on October 31st, 1994.

The records of the foundation, however, were written on December 10th, 1994, at 8:30 p.m., at Hospital São Joaquim da Real e Benemerita Sociedade Portuguesa de Beneficência (Rua Maestro Cardim, 759, São Paulo).

The founding members included:

01. Adriana Moachi (São Paulo)
02. Ailton Luiz Takishima (São Paulo)
03. Américo Marques (São Paulo)
04. Carlos Alberto Caropreso (São Paulo)
05. Carlos de Souza Toledo Jr. (São Paulo)
06. Carlos Roberto Ballin (Paraná)
07. Cássio Menezes Raposo do Amaral (São Paulo)
08. Celso Massaschi Inoeve (São Paulo)
09. Cláudio Karl (Rio de Janeiro)
10. Cleider de Freitas Gomes (Rio de Janeiro)
11. Clovis Bezerra Martins (São Paulo)

12. Diógenes Laércio Rocha (São Paulo)
13. Elmir de Souza Cardim Filho (São Paulo)
14. Fernando Aranha Froes (São Paulo)
15. Gerson Vilhena Pereira Filho (São Paulo)
16. Gilvani Azor de Oliveira Cruz (Paraná)
17. José Carlos Ronche Ferreira (São Paulo)
18. José Mário Camelo Nunes (São Paulo)
19. Julio César Viola (São Paulo)
20. Julio Wilson Fernandes (Paraná)
21. Lenine Garcia Brandão (São Paulo)
22. Luciano Pinheiro Lima Caseli (São Paulo)
23. Luiz Carlos Sanvitto (São Paulo)
24. Luiz Francisco Souza da Fontoura (Rio de Janeiro)
25. Marcelo Giovanetti (São Paulo)
26. Marco Aurélio de O Marinho (São Paulo)
27. Marcus Vinicius M. Collares (Rio Grande do Sul)
28. Maria Antonia Marques (São Paulo)
29. Maria José Marques (São Paulo)
30. Marivaldo de Castro (São Paulo)
31. Nilson Roberto Cunha (Rio de Janeiro)
32. Nivaldo Alonso (São Paulo)
33. Otávio Machado de Almeida (São Paulo)
34. Paulo Henrique Pires de Aguiar (São Paulo)
35. Paulo Hvenegaard (São Paulo)
36. Paulo Karmandayan (São Paulo)
37. Perboyre Lacerda Sampaio (São Paulo)
38. Ricardo Lopes da Cruz (Rio de Janeiro)
39. Roberto Godoy (São Paulo)
40. Ronaldo Blat Lage (São Paulo)
41. Rosângela A. Simoceli (São Paulo)
42. Salvador Carlos de Almeida (São Paulo)
43. Sergio Moreira da Costa (Minas Gerais)
44. Vera Lucia Nocchi Cardim (São Paulo)
45. Vespaziano Lopes de Farias (Espírito Santo)

The first board of directors of the Society (for the 1995/1996 management period) was composed of the following people:

President - Dr. Vera Lucia Nocchi Cardim (São Paulo)  
Vice President - Dr. Roberto Godoy (neurosurgery - São Paulo)

Secretary - Dr. Paulo Hvenegaard (São Paulo)

Assistant Secretary - Dr. Perboyre Sampaio (otorhinolaryngology - São Paulo)

Treasurer - Dr. Henrique Kikuta (ophthalmology - São Paulo)

Assistant Treasurer - Dr. Athos Bier Greco Neto (Rio Grande do Sul)

The list below includes the names of people who have already been in the position of President of the Society:

1995/1996 - Dr. Vera Cardim (São Paulo)  
1997/1998 - Dr. Edgard Alves Costa (Rio de Janeiro)  
1999/2000 - Dr. José Carlos Ferreira (São Paulo)  
2001/2002 - Dr. Nivaldo Alonso (São Paulo)  
2003/2004 - Dr. Ricardo Lopes da Cruz (Rio de Janeiro)

The congresses of the Brazilian Society of Craniomaxillofacial Surgery that were already held and their respective coordinators are listed below:

Rio de Janeiro, 1995 - Dr. Luiz Francisco da Fontoura (Rio de Janeiro)



CONGRESSO BRASILEIRO DE CIRURGIA CRANIOMAXILOFACIAL  
CURSO INTERNACIONAL DE CIRURGIA CRANIOMAXILOFACIAL  
RIO DE JANEIRO, 1995

São Paulo, 1996 - Dr. Nivaldo Alonso (São Paulo)  
Belo Horizonte, 1997 - Dr. Sérgio Moreira da Costa (Minas Gerais)  
Porto Alegre, 1998 - Dr. Marcus Vinicius Collares (Rio Grande do Sul)  
Rio de Janeiro, 1999 - Dr. Ricardo Lopes da Cruz (Rio de Janeiro)  
São Paulo, 2000 - Dr. José Carlos Ferreira (São Paulo)  
Belo Horizonte, 2002 - Dr. Antonio Brito (Minas Gerais)

The current board of directors of the Society (2003/2004) is composed as follows:

President - Dr. Ricardo Lopes da Cruz (Rio de Janeiro)  
Vice President - Dr. Marcus Vinicius Collares (Rio Grande do Sul)  
Secretary - Dr. Dov Goldenberg (São Paulo)  
Treasurer - Dr. Max Domingues Pereira (São Paulo)

Currently, in 2003, the Brazilian Society of Craniomaxillofacial Surgery is composed of 360 members (compared to the 45 founding members). The number of members per state is as follows: Amazonas, 1; Amapá, 1; Bahia, 4; Ceará, 1; Distrito Federal, 1; Espírito Santo, 4; Goiás, 9; Maranhão, 3;

Minas Gerais, 27; Mato Grosso do Sul, 1; Mato Grosso, 2; Pará, 1; Piauí, 1; Paraná, 15; Rio de Janeiro, 33; Rio Grande do Norte, 4; Rio Grande do Sul, 7; Santa Catarina, 5; and São Paulo, 240.

The release of the *Bulletin of the Brazilian Society of Craniomaxillofacial Surgery* in 2003 was of paramount importance for the exchange of information between specialists from the fields of plastic surgery, otorhinolaryngology, and head and neck surgery. On the cover of the *Bulletin*, readers can read:

"The Brazilian Society of Craniomaxillofacial Surgery was founded on October 31st, 1994, and is aimed at fostering the exchange of information and technologies so as to promote the development of a highly specialized and qualified community to act on the treatment of any craniofacial deformity."

The objectives of the Society are:

- to foster the development of craniomaxillofacial surgery;
- to promote an opportunity for the exchange of knowledge that is applicable to clinical practice;
- to foster teaching of and research on methods of prevention and treatment of congenital and acquired craniofacial deformities;
- to improve the study and practice of craniomaxillofacial surgery;
- to honor those who have contributed to the development of the craniomaxillofacial surgery area, inviting them to join and become members of the Brazilian Society of Craniomaxillofacial Surgery.



2003/2004 Board of directors

And the story goes on...

## SUGGESTED BIBLIOGRAPHY

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# BRAZILIAN JOURNAL OF CRANIOMAXILLOFACIAL SURGERY

Official publication of the Brazilian Society of Craniomaxillofacial Surgery

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**Organization as author:**

The Cardiac Society of Australia and New Zealand. Clinical exercise stress testing. Safety and performance guidelines. *Med J Aust* 1996;164:282-4.

**No author given:**

Cancer in South Africa [editorial]. *S Afr Med J* 1994;84:15.

**Volume with supplement:**

Shen HM, Zhang QF. Risk assessment of nickel carcinogenicity and occupational lung cancer. *Environ Health Perspect* 1994;102 Suppl 1:275-82.

**Issue with supplement:**

Payne DK, Sullivan MD, Massie MJ. Women's psychological reactions to breast cancer. *Semin Oncol* 1996;23(1 Suppl 2):89-97.

**Letters and other special articles:**

Enzensberger W, Fischer PA. Metronome in Parkinson's disease [letter]. *Lancet* 1996;347:1337.

**Books and other monographs**

**Personal author(s):**

Ringsven MK, Bond D. Gerontology and leadership skills for nurses. 2nd ed. Albany (NY): Delmar Publishers; 1996.

**Editor(s), compiler(s) as author(s):**

Norman IJ, Redfern SJ, editors. Mental health care for elderly people. New York: Churchill Livingstone; 1996.

**Chapter in a book:**

Phillips SJ, Whisnant JP. Hypertension and stroke. In: Laragh JH, Brenner BM, editors. Hypertension: pathophysiology, diagnosis and management. 2nd ed. New York: Raven Press; 1995. p. 465-78.

**Conference proceedings:**

Kimura J, Shibasaki H, editors. Recent advances in clinical neurophysiology. Proceedings of the 10th International Congress of EMG and Clinical Neurophysiology; 1995 Oct 15-19; Kyoto, Japan. Amsterdam: Elsevier; 1996.

**Conference paper:**

Bengtsson S, Solheim BG. Enforcement of data protection, privacy and security in medical informatics. In: Lun KC, Degoulet P, Piemme TE, Rienhoff O, editors. MEDINFO 92. Proceedings of the 7th World Congress on Medical Informatics; 1992 Sep 6-10; Geneva, Switzerland. Amsterdam: North-Holland; 1992. p. 1561-5.

**Dissertation:**

Kaplan SJ. Post-hospital home health care: the elderly's access and utilization [dissertation]. St Louis (MO): Washington Univ; 1995.

**Other published material**

**Newspaper article:**

Lee G. Hospitalizations tied to ozone pollution: study estimates 50,000 admissions annually. *The Washington Post* 1996 Jun 21; Sect. A:3 (col 5).

**Audiovisual material:**

HIV + /AIDS: the facts and the future [videocassette]. St Louis (MO): Mosby-Year Book; 1995.

**Forthcoming publications:**

Leshner AI. Molecular mechanisms of cocaine addiction. *N Engl J Med*. In press 1996.

**Electronic material**

**Journal article in electronic format:**

Morse SS. Factors in the emergence of infectious diseases. *Emerg Infect Dis* [serial online] 1995 Jan-Mar [cited 1996 Jun 5]; 1(1):[24 screens]. Available from: URL: <http://www.cdc.gov/ncidod/EID/eid.htm>

**Monograph in electronic format:**

CDI, clinical dermatology illustrated [monograph on CD-ROM]. Reeves JRT, Maibach H. CMEA Multimedia Group, producers. 2nd ed. Version 2.0. San Diego: CMEA; 1995.

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