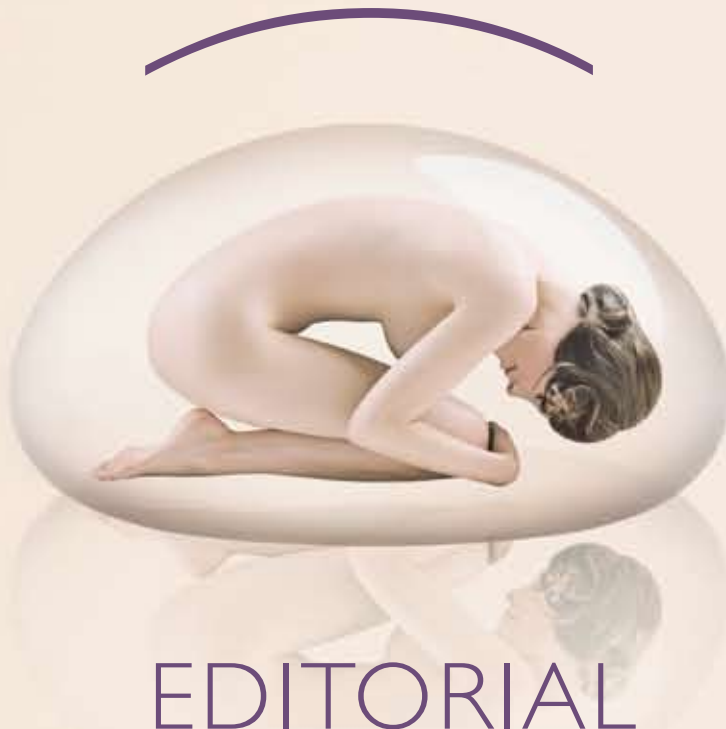


L'EXPANDER

The plastic surgery newsletter from Laboratoires SEBBIN



EDITORIAL

by Alberto Fabregas, Managing Director of Sebbin Spain & Portugal



There is something new under the sun: the international deployment of the Groupe Sebbin, with the opening of our Sebbin Iberica (Spain and Portugal) subsidiary.

My knowledge of European and Latin American markets and more than 12 years of experience

with QMED as EMEA Vice-President, have enabled me to undertake this new adventure without hesitation. With a significant asset: a wide range of premium products and a high quality of service that position Sebbin Iberica as the essential partner for surgeons.

Our offer is enriched through partnerships with companies such as Anteis, Regenlab, Revitacare, Cytocare, Conjonctyl,

Enerpeel, Promoltalia (Happylift), and with the range of 4U medical single-use instruments, a Groupe Sebbin company: guaranteed success at hand! Without forgetting our partnership services: the 3D Crisalix virtual simulation software and the web referencing help for via Consulta Click.

To move forward to a promising future, we are forging strong links with universities: more than 25 training sessions in 3 months! With this in mind, we are contributing to scientific advances by collaborating with learned societies such as SECPRE, AECEP, AEDV, SEME or SEMCC.

With Macrofill, the future is already in l'Expander. To know more about this innovative and single-use lipofilling kit dedicated to lipomodelling, do not hesitate to contact us. But above all these...

Happy reading.

THE WORD from Doctor Julien Glicenstein



Reconstruction of the breast remains a topical subject. The techniques have evolved over the past 40 years. The breast implants, round or anatomical, expanders, regional musculocutaneous flaps (large dorsal or TRAM), free flaps (DIEP, gracilis, etc...) have led specialized surgeons to obtain symmetrical results, tailored for each case and durable. For this, good knowledge of all the techniques is necessary but is insufficient. Prof. Bruant Rodier's methodology takes into account, not only the morphology and the psychology of the surgical patient, but also the artistic sense of the surgeon. This attitude shows the deep intertwining of plastic surgery and cosmetic surgery.

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Issue 6

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NEW!

MACROFILL: An innovative system for lipomodelling



This single-use kit is used with the ADIPSPIN centrifuge that allows, in a closed circuit, the sampling, treatment and reinjection of large volumes of fat. Easy to use and comfortable, the Macrofill kit allows increasing the engraftment by preservation of the adipose lobules. It is suitable for all indications requiring lipomodelling. The single-use Macrofill kit is supplied sterile.

SPINFILL: Sterile single-use syringes



The Spinfill syringes, included in the Macrofill kit, allow you to control the depression during the sampling of the adipose tissue with a unique notched piston system. The low depression allows you to improve the survival of the adipocytes. The Spinfill syringes allow you to perform the procedure in a closed circuit. They are also sold separately and packaged in a pack of 3 individual bags of 2 syringes.

INVITED GUEST OF L'EXPANDER

Professor Catherine Bruant-Rodier is a specialist in cosmetic, reconstructive and plastic surgery in the Strasbourg Civil Hospital. Her activity is divided between hospital practice and teaching in the university.
Professor Bruant-Rodier is a consultant at the hospital for different types of pathologies, whether it is of malformations or sequels arising from a disease or accident.

Only a surgeon can access, during his or her training, to the proficiency of all breast reconstruction techniques. They range from the simplest to the most sophisticated. Regardless of the technicality of the procedure, whether it is as basic as lipofilling or as elaborate as microsurgery, it always has the final modelling step, the reconstruction of the volume, which leaves the lion's share to the empirical and which is the joy of our speciality.

Just as a painter seeking the exact tone on his colour palette, the plastic surgeon will define amongst all the surgical techniques available the one which best applies to the particular case of his patient. In breast reconstruction there is no single technique that can be imposed in relation to the other but an entire range of techniques whose diversity persists over time. Beyond the control of the surgical procedure, the subtlety of the indication is fundamental in hoping to satisfy the individual expectations of the patient.

Surgeon proposes - Patient disposes.

The quality of the tissue in the mastectomy area, the morphology of the patient, of the contralateral breast, the possibilities of harvesting of flaps are some of the information gathered during the clinical examination. But other more general criteria are taken into account: age, children, tobacco, sports practices, profession and especially the image that the patient has of her reconstructed breast.

BREAST RECONSTRUCTION by Professeur Catherine Bruant-Rodier



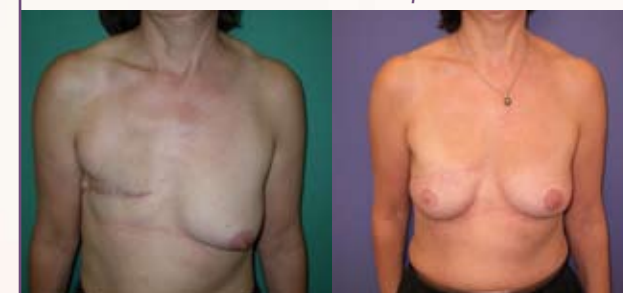
In many ways breast reconstruction is definitely an art in itself: close imbrication with oncology, extreme wealth of surgical techniques, female population with various realities and expectations, reconstructive surgery without functional purpose, with purely morphological aims. It is this complexity in both the techniques but as well as the morphological and psychological indications which makes its practice so exciting.

Prosthetic breast reconstruction with contralateral augmentation



a) Thin patient with small ptotic breast b) Bilateral prosthesis

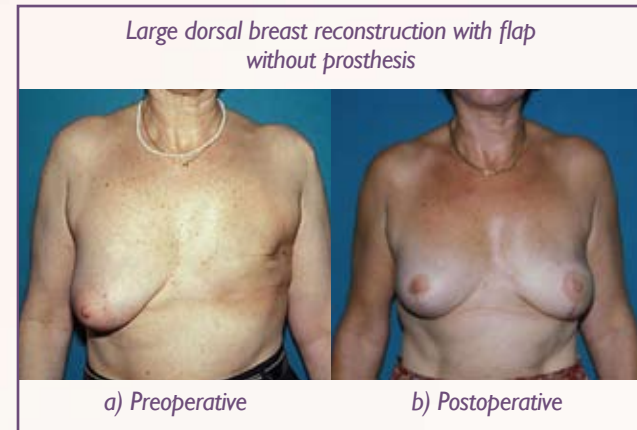
Breast reconstruction with prosthesis



a) Tissue deemed to be satisfactory in breast area after mastectomy b) Normal weight woman and with natural round shaped breast

Why not reconstruct for the patient a volume that would please her: bigger, smaller or, on the other hand, identical. The same applies when it is about the form: some women dream of well-placed round breasts, others would prefer to preserve to the maximum extent possible the naturalness of their original bosom. The concept of taking risks will be addressed. The prosthetic techniques present moderate surgical risks but with predictable re interventions every 10 years approximately. They are in opposition to the flap techniques whose immediate surgical risk is all the more elevated as they require microsurgery but whose durability of the results constitutes an undeniable asset.

The surgeon defines the therapeutic opportunities. He presents to the patient the benefits, the drawbacks, the predictable outcome of each of the techniques proposed and it is up to the patient, then, to make a decision and to make her choice with respect to her own criteria.



The prosthetic techniques with definitive implant or with expansion are possible only if the tissues in the breast area are of sufficient quality and quantity, which is usually the case outside of a prior irradiation. They are suitable for women with a good weight-height ratio, a stable weight and with an ideally round contralateral breast. When the breast is small sized, the reconstruction can be the right time for an increase in volume by using a bilateral prosthesis at the request of the patient. This is a simple surgical technique, without additional scarring, but re-interventions will be required over the years to change the prosthesis and to retouch the symmetry of the result.

The flap techniques are needed when the tissues in the mammary area prove to be deficient, most often after radiotherapy. When the excess mobilised tissues are sufficient to rebuild a breast volume, the disadvantage of the donor site is counter balanced with the advantage of a natural and long lasting result. When the pedicled flaps remain limited due to the rotational arc of the vascular pedicle in the dorsal (large dorsal) and abdominal (TRAM) regions, the microsurgical flaps (that require

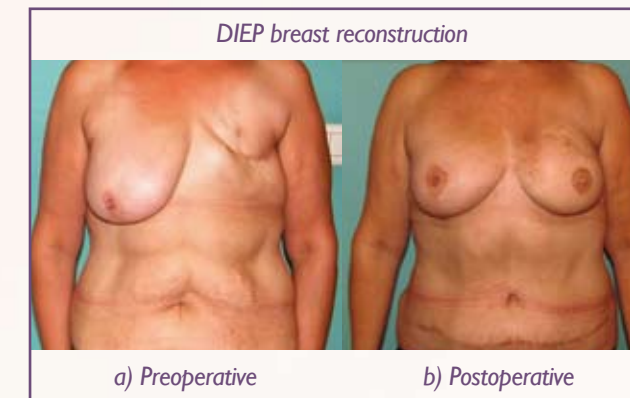


connected to an artery and a vein) eliminate these spatial constraints for long term harvesting in the tissue stores

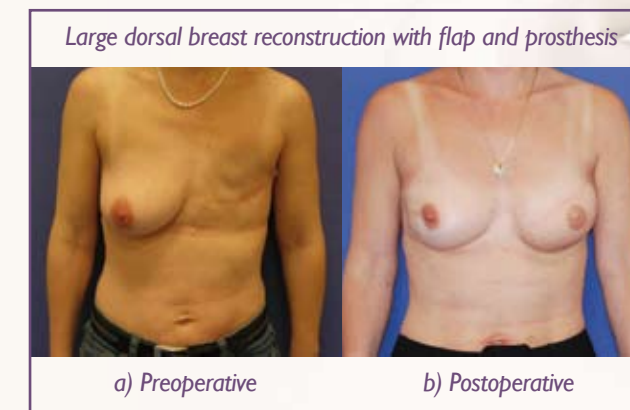


of the thighs (gracilis), the buttocks or the abdomen (DIEP).

As compared to the pedicle techniques, these microsurgical techniques have the disadvantage of having a higher, about 5 to 10%, failure rate. There are contra indications to these autologous reconstructions, such as tobacco, diabetes or thromboembolic problems.



The combined technique uses large dorsal flaps and prosthesis. They combine the vascular reliability of a pedicled flap with the volumising character of a prosthesis. They are achievable among almost all the patients regardless of their morphotype and their vascular disposition.



Evolution of techniques.

In mammary oncology, the advances in radiological techniques and the extension of screening practices allow the diagnosis of smaller and smaller tumours, sometimes even at pre-cancerous stage. Beyond the visible lesions, in some families genetic mutations authenticate a high risk of cancers for which monitoring and preventive treatment are proposed.

While conservative treatment, involving lumpectomy and radiotherapy, is increasingly practised for cancers that are proven to be fairly large in size, the mastectomies are the rule of thumb for these minimally invasive tumours but which are, unfortunately, diffuse or multifocal. Here is a paradox of medicine that allows the conservation

of the breast for lesions often more serious than those that will justify a mastectomy. Thus, bilateral mastectomies are proposed as a preventive measure among young genetically mutated women. Breast reconstruction finds its place in these indications, where the patients' requirement level is justifiably very high.

A middle-aged, married woman and a mother, treated with radiotherapy and chemotherapy for many months will tend to see her deferred breast reconstruction as a gift. On the other hand, a young woman without emotional stability, for whom the mastectomy is sometimes recommended on a bilateral basis for low grade lesions, but at high risk of progression, will have much more difficulty accepting its reconstruction, even if immediate.

Reconstructive surgery seeks an adequate response to the expectations of these young and privileged patients as to the choice of techniques, the natural criteria and long lasting stability of the reconstructed breast. The autologous flap reconstruction techniques offer these advantages. Microsurgery allows you to overcome the spatial boundaries. We look for excess tissue to transfer, sometimes limited among young women, and we look in hidden areas. For example, microsurgical gracilis reconstruction transferred from the internal side of the thigh may provide, without prosthetic support, a breast volume, even bilateral, in a young woman without any overweight. The procedure is certainly technically difficult. Certainly, there is more risk. But the patient is young and able to withstand even a long surgery. The quality of the result and the stability of the evolution warrant without doubt the initial challenge.



Thus, to the paradoxical aggressiveness of the cancer, reconstructive surgery finds only a mirrored response and adding to the initial maiming gesture, the aggressiveness of a demanding autologous microsurgical technique.

The improvement of these techniques, their practice by multiple teams, by trained surgeons, make these procedures still currently reserved to a few breast reconstruction centres secure and commonplace, but which should be generalized, thanks to our young plastic surgeons' excellent training.

WE CAN NEVER TAKE ENOUGH PRECAUTIONS

The need to reduce the pre and postoperative incidents is being gradually enforced in the surgical world. The authors propose a series of control measures which must make the operating block as secure as an aircraft cabin. The surgical team must observe the same discipline as the crew of a long-haul.

The first step is to operate the correct patient, carry out the planned surgery and on the correct side (the errors are much more frequent than can be imagined!). Before the operation, it is therefore necessary to check the patient's record, the diagnosis, the type of surgery, mark the surgical site, the incision line (with the control of the patient), check the equipment necessary for the operation, check the X-rays and additional tests.

Before the incision, a pause is needed to do a review, in which each member of the team verifies his equipment and his role. If several operations are carried out on the same patient, a pause of this type is practised before each operation.

At the end of the operation, it must be confirmed that the planned surgery has been carried out, that no dressing gauze or equipment is missing and that the patient is awakened.

Certain issues must be considered in terms of the position of the patient during the operation. If he is in

a dorsal decubitus position, there is a need to protect the ankles, elbows, vertebral column and spacing of the upper limbs. In ventral decubitus, the head must be in alignment with the trunk and the forehead, the eyes must be protected, rollers placed under the hips and the clavicles...

In lateral decubitus, a pillow must be placed under the knees and the column well aligned. These steps, and others recommended by the authors, are of course, systematically verified by the anaesthetists, but the authors of the article have drawn up a sheet with very detailed diagrams, which should accompany the patient.

They finish the article (which has a second part devoted to the safety of the patient during and after the operation, and that we will analyse in the next issue of l'Expander) by discussing the brushing of the hands of the surgeon (they prefer staining) and the preparation of the skin of the patient.

This article may seem to repeat concepts known to all surgeons; the frequency of complications related to the non-observance of these rules contradicts this assertion.

Patient safety in the operating room. I pre operative. Poore SO and al Plast Reconstr Surg 2012; 130 : 1038-47.

Endoscopic correction of frontal bossing

Frontal bossing is the protuberance of the frontal bone in the supraorbital region. This deformation is encountered in severe facial abnormalities (Crouzon, Apert's syndrome, acromegaly etc...) but is quite rarely isolated. In this case, the frontal sinus is very developed. External bicoronal treatment of the bossing has been advocated, but an enlarged scar, dysesthesias and alopecia may complicate the surgery. The use of an endoscope allows minimal incisions and decreases the bleeding.

Lateral skull X-rays are needed to measure the thickness of the frontal bone. 1 to 1.5 cm sagittal incisions are made: a median, one or two on each side at 7 and 10 cm from the median line. The dissection plane is subperiosteal in the middle portion and laterally suprafascial. It is extended till the supraorbital region under endoscopic control. The supraorbital nerves and blood vessels are isolated. The bossing is abraded with a fine grater. One must be careful not to open the wall of the frontal sinus (which must not become transparent). A frontal facelift can be carried out at the same time. The authors have operated on 10 patients, including 6 men. The results were analysed by 6 independent observers. The improvement observed was considered to be mild or moderate in almost all cases (only one without improvement). There were no complications.

Endoscopic correction of frontal bossing. Guyoron B and al. Plast Reconstr Surg 2013, 131 ; 388-93e.



HOW MUCH FAT RESORPTION AFTER BREAST LIPOFILLING?

the period of study was verified.

The patients were divided into 3 groups according to the volume of fat injected: large (110 to 216 cc), medium (75 to 108 cc) or small (12 to 72 cc). In the first group, 52% of the fat was still present at the end of 140 days, the second 38% and the third 27% only.

Lipofilling has become a very popular technique. Despite increasing number of clinical and experimental studies, the method remains empirical, varies with each author and the long term results are not analysed with objectivity. It is usual to read in the articles that the resorption of the fat is about 30% without indicating the measurement method. The authors use a 3 dimensional photography for quantifying the fat resorption after breast lipofilling in a series of breast reconstructions.

The authors did not find any difference between the resorption of the fat in patients who had received radiotherapy and the others. The fat seems to be resorbed more quickly among the patients who had undergone autologous material reconstruction rather than those who had had a prosthesis or a lumpectomy. In all cases, a certain percentage of fat is still present at the end of 5 months. It is interesting to note that the increase in volume appears to be more important in the postoperative period due to oedema and inflammatory reaction.

Three categories of patients were studied. The first had an autologous graft reconstruction, the second an implant associated with fat and fat transfer after lumpectomy for the third. Patients were photographed in 3 dimensions, before the surgery and 7, 16, 49 and 140 days after the surgery. A study program was used each time for calculating the increase in the volume of the breast. The study focussed on 90 patients (123 breasts). The stability of the weight of the patient during

Although this study is interesting, it does not provide an answer to the questions asked by surgeons: are there any differences with respect to the age, donor site and sampling and injection technique?

The volumetric analysis of fat graft survival in breast reconstruction. Choi M. and al Plast Reconstr Surg 2013; 131: 185-91



COVERING THE NIPPLE TO REDUCE INFECTIVE RISK

Among breast implant complications, the emergence of a periprosthetic bacterial contamination remains feared. Many aetiologic factors have been raised: the diffusion of the gel, a haematoma, the formation of a "biofilm" around the prosthesis: i.e. a group of bacteria, which increase their resistance to anti-microbial therapies. This biofilm seems to be the cause of the prosthetic infections. Bacteria are normally present in the tissue and the breast canaliculi. The authors covered the nipples with Tegaderm (3M, St Paul Minnesota). They followed 32 patients who had received one gram of first generation cephalosporin more than half an hour before the operation.

During the operation, the dissection area is irrigated with a solution containing three antibiotics, and then with a diluted Betadine solution. After placing the implant, bacterial samples are taken at the level of the nipple and the deep face of the nipple-areola envelope. The authors operate via the infra-mammary approach. The results obtained are impressive.

A bacterial presence was detected one out of three times, usually staphylococcus epidermidis. None of the patients amongst whom the germs had been detected have any bacterial or infectious complications in the postoperative

recoveries. In 3 of the patients in whom no bacteria had been found, there were 3 "cocci" and one infection with Staphylococcus aureus. The authors seem convinced of the benefits of protecting the nipple during breast augmentation. We are awaiting further evidence.

Risk of breast implant bacterial contamination from endogenous breast flora. Prevention with nipple shields and implication for biofilm formation. Wixtrom RN and al Aesth Surg J. 2012 : 32 : 956-63.



Diederik VAN GOOR, Director General of Groupe SEBBIN, receives the IPRAS award during the gala dinner on February 28, 2013, in Santiago de Chile, in recognition of the support given not only during our participation in the world congress but also to the plastic surgery speciality in general.

COSMETIC SURGERY AND TOBACCO

Tobacco is considered to be an important risk factor for plastic surgeries. The surgeons know it and take this into account. The authors have tried to determine if patients claiming to not smoking or no longer smoking were telling the truth, and what was the actual rate of complications among smokers.

They studied their patients for two years. They clarified this with a detailed medical history which patients were or had been smokers. Patients at risk of skin necrosis during their surgery had it postponed for several weeks with smoking-cessation and the latter verified by a nicotine test, during the preoperative anaesthetic evaluation, sometime before the operation. A nicotine urinalysis was done on the day of the surgery, since its results could not be known during the latter.

The patients were followed up for 3 months. The study focused on 415 patients (breast surgery for reduction and augmentation, abdominoplasties, free TRAM flap or pedicled etc...). 57% had never smoked, 33% had stopped, 9% were continuing. Among the 54 patients whose test

showed the presence of nicotine, 15 claimed not to be smoking. Among those who claimed to have stopped smoking for less than 6 months, they found 21% were "cheaters", only 5% among those who had not smoked any more for more than 6 months. Among those who claimed they have never smoked, only one had a positive nicotine test. The rate of complications (infection, skin necrosis, haematoma, scar break down) was significantly more important among proven smokers or "cheaters". Facing a patient who smokes the surgeon has the choice between refusing the surgery and taking an increased risk of complications. This choice must be made case by case. The nicotine test allows the detection of a substantial number of alleged non-smokers, with an unexpected operative risk.

Plastic surgery and smoking. A prospective analysis of incidence, compliance and complications Coon D and al. Plast Reconstr Surg 2013; 131 : 385-91.

ABDOMINOPLASTY & THROMBOPROPHYLAXIS

Abdominoplasty is a surgery that is being increasingly carried out, in particular after a substantial weight loss. But this surgery is fraught with complications. The most serious of these is the often fatal pulmonary embolism. The prevention of lower-extremity deep vein thrombosis, thanks to low molecular weight heparins, has led to a substantial reduction of these serious complications. However there is a high risk of postoperative haemorrhage in abdominoplasties. Usually the prophylactic treatment, in the form of a daily injection, is prescribed for the ten days following surgery. The effectiveness of a new oral molecule (Rivaroxaban) was studied by the authors. They selected 40 patients considered to be «high risk» (excess weight, between 40 and 60 years, taking birth control pills or hormone therapy etc...). Those with a history of venous thrombosis were disqualified, as also those with a coagulation disorder.

The patients were separated into 2 groups, and a «double-blind» study was carried out, some receiving an active tablet and the remaining a placebo. The patients were all operated in the morning, and were discharged from the hospital the day after the operation. They were all re-examined on the 4th postoperative day and weekly until the 3rd month. The operating technique was identical among the forty patients (abdominoplasty with transposition of the navel, and plication of the rectus muscles). All patients wore compression stockings in the postoperative recoveries. The results of the study are interesting. None of the patients, irrespectively of whether or not she/he was subjected to the coagulating treatment, had any thromboembolic complication. Postoperative recoveries of 8 of the 27 patients, all from the group treated with anticoagulants, had complications due to an often important haematoma. The authors' conclusions are nuanced. A very careful assessment of the risk of thromboembolism is necessary with the assistance of a specialist, before any abdominoplasty, especially if the subject is considered to be at risk.

How safe is thromboprophylaxis in abdominoplasty. Moreira Disri and al. Plast Reconstr Surg 2013, 131; 851e-70.

YESTERDAY TODAY

A FACIAL GRAFT

In the first issue of l'Expander, Professor Meningaud has detailed the operating times required for a facial graft. Although an exceptional indication, this remarkable surgery helps restore a true face to completely disfigured people.

The First World War was at the origin of hundreds of thousands of wounded and victims of facial burns. The surgeons at the time, Harold Gillies in particular, had to show a great deal of imagination to find a technical solution for repairing the dreadful mutilations. And the patients, extraordinary courage to withstand the necessary multiple operations!



Before



After



Thoracic paddle



Flap in position



Result before retouching

The example shown here is that of a marine officer who suffered a total facial burn and operated upon by Harold Gillies in 1920. The burn had healed leaving a retracting and inextensible scar in place of the skin of the whole upper portion of the face. Several operations were required, delayed by infections and partial necrosis. As a first step, a wide thoracic flap was cut and connected to the neck by 2 skin tubes. A skin «mask» was transplanted to the face and then "weaned". On the last photograph, several months after the first, the surgical patient is smiling. A few touch-ups needed to be done.

Plastic Surgery of the face. Gillies HD. Henry Frodde Ed London 1920 pp. 360-363.

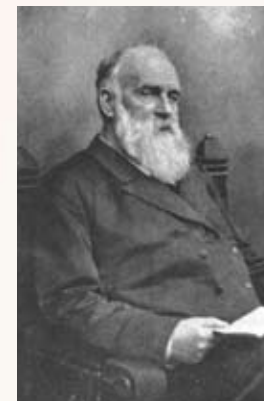


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Our surgical instruments are manufactured from surgical stainless steel and are sterile and single-use. Available in kits for a given surgery, they are also available separately.

FLASHBACK ON THE HISTORY OF TRANSPLANTATION

CHAPTER VI: THIERSCH, WOLFE AND KRAUSE



Carl Thiersch

Carl Thiersch (1822-1895), Professor of Surgery at the University of Leipzig, was the first German surgeon to practice the theories of Lister on antiseptics. He was particularly interested in skin healing and grafting. He was sampling fragments of skin with a razor and he avoided applying it on granulation tissue. The dermo-epidermal grafts are still called Thiersch's skin grafts in German and Anglo-Saxon literature.



Sampling of graft with a razor

John Reisberg Wolfe (1824-1903), of German origin, practised in Glasgow as head of the ophthalmology service. He felt that all subcutaneous matter should be removed from the grafts. He illustrated his theory by publishing the observation of a 25 year old man disfigured by an explosion. He corrected the retraction



John Reisberg Wolfe

of the eyelids with a total skin graft taken on the forearm of which the natural fat had been removed from the external two thirds and the remaining internal one third retained the subcutaneous tissue. Wolfe observed that only the external two thirds took hold.

A few decades later, in 1893, Fedor Krause (1856-1937) published a series of 21 patients on whom he had placed more than 100 grafts, of which only 4 had necrosis. He gave all the details on the technique, dressings, and postoperative recoveries. Total skin grafts are very often called Wolfe Krause graft in the Anglo-Saxon and Germanic countries.



Fedor Krause

Next episode: Davis Graft, Epithelial in lay de Esser.



Join the GROUPE SEBBIN

- SOFCEP / SOFCPRE: from May 9 to 11, in Quiberon, France.
- SITGES: from May 17 to 19, in Barcelona, Spain.
- SECPRE: from June 5 to 7, in Tenerife, Spain.
- SFETB: from June 12 to 14, in Toulouse, France.
- SAMCEP: June 14 and 15, in Porto Vecchio, France.
- Aesthetica: June 21 and 22, in Biarritz, France.
- Senology congress: from June 27 to 29, in Munich, Germany.
- Day on lipomodelling of the breast - Dr Delay: June 29 in Lyon, France.

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The surgical instruments and the surgical instruments kits are Class IIa devices, excluding the needle holders, the cartilage crusher and the nasal speculum which are Class I devices, manufactured by 4U medical, distributed by Groupe SEBBIN and are intended to be used in surgery. These devices are CE marked by the notified body number SGS 0120. These devices may not be reimbursed by the health insurance organisations.



SEBBIN PARIS
ESTHETIQUE & RECONSTRUCTION

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