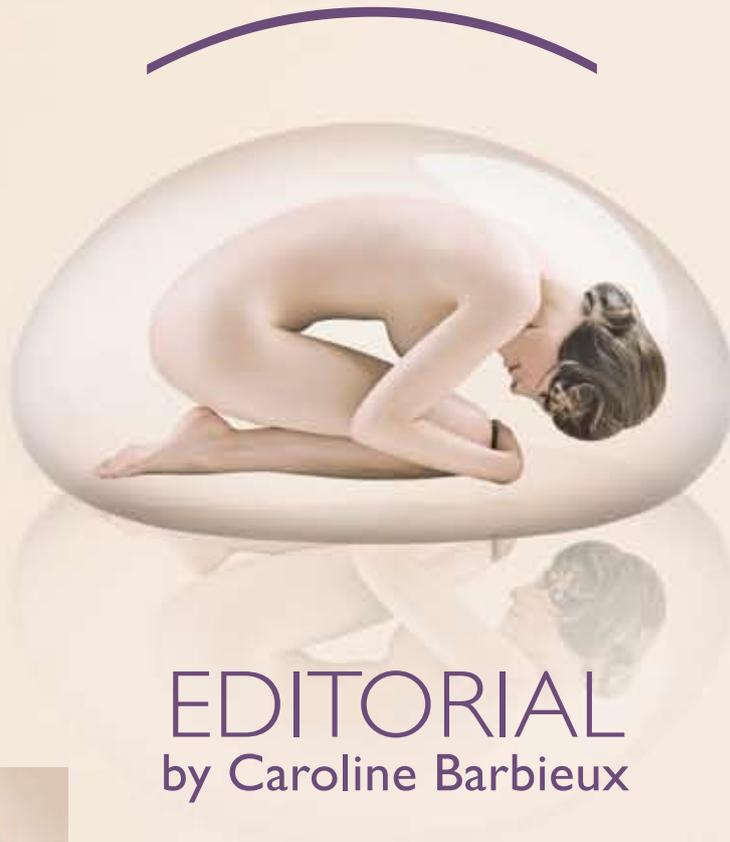


L'EXPANDER

The plastic surgery newsletter from Laboratoires SEBBIN



EDITORIAL by Caroline Barbieux



With the first issue of l'Expander having visibly met with a straight success among most of our plastic surgeon colleagues, Laboratoires Sebbin were pleased to concoct issue 2. But before you immerse yourself in - what we hope is - exciting and impassioned reading material, it is my duty to share with you the hot topic of our company, this month of November will be the occasion for our laboratory to reveal to you most

of the projects, which we conceived during 2011. These new products, in many cases unpublished, will certainly create a good impression among you. The whole Sebbin team will be delighted to receive a visit from you at the French Society for Plastic, Reconstructive and Aesthetic Surgery (SOF-CPRE) stand from 21 November at the Centre of New Industries and Technologies (CNIT) of Paris-La Défense (stand no.46 and 31) ...So many innovations enabling you to recreate harmonious bodies...to give them new lease of life.

Happy reading and until next time.

THE WORD of Doctor Julien Glicenstein

In this second issue of L'Expander I have chosen to address an often debated current topic, namely:

Lymphomas, double bra fillers and breast prostheses.

For the past approximately fifteen years, several reports of non-Hodgkin's lymphomas in patients with breast prostheses have been published in journals of dermatology, oncology then plastic surgery. The articles were often imprecise but little by little several questions came to light: was it a coincidence? If not, in what cases are they observed? Were these lymphomas of the breast, what type etc...

Several articles appearing in the journal Plastic and Reconstructive Surgery attempted to answer these questions. They sparked off a vivacious discussion.



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LYMPHOMAS & breast prostheses

Lipsworth and colleagues [1] investigated several large studies of breast enlargements with prostheses in women monitored for numerous years. They found 48 cases of non-Hodgkin's lymphoma, all extra-mammary, which is comparable to that found in an equivalent population not having undergone surgery. None of these lymphomas reached the breasts.

Interest in this possible pathological association became evident through the publication of a series of articles in the June and July 2011 issue of PRS [2-4], following the description of cases of non-Hodgkin's mammary lymphomas of a rare type (large cell anaplastic) in women with breast prostheses. Ken and colleagues [2] carried out a systematic literature search for publications associating lymphoma and breast prostheses. They studied 34 articles out of 83 indicating this correlation. Although a detailed description is missing in many articles, they established the characteristics in these cases,

distinguishing anaplastic lymphomas (29) from the others (7). The women in these 2 categories were of an average age of 50 years. They had had implants for around ten years. Details of implant characteristics were rarely given and the articles were often imprecise concerning the surgical intervention. What is interesting is that more than 40% of anaplastic large cell lymphomas were associated with seroma and 24 % with a palpable mass. Following aspiration of the liquid, cytological analysis of the latter facilitated diagnosis in 70% of cases. The tyrosine kinase receptor (anaplastic lymphoma kinase: ALK) was absent as in cutaneous anaplastic large cell lymphomas. After variable treatment (ablation of the prosthesis, chemotherapy, radiotherapy) or simple observation, all patients survived, although this type of lymphoma has a bad prognosis. The lymphoma cells were found in the periprosthetic liquid and the external capsule (which is in contact with the breast parenchyma).

The data from the literature are fragmented and incomplete but indicate that a late periprosthetic effusion must result in other investigations.

In the commentary extending this article, JM Kenkel, attempts to evaluate the significance of the problem with "evidence-based medicine", currently very much in fashion!). He notes that the published cases lacked some very important elements: 72% of histological examinations of the capsule, when it was removed, did not mention the inflammation. Observations of 40% of the patients did not specify prior treatment (chemo or radiotherapy). The prognosis of the large cell anaplastic lymphomas associated with breast prostheses appears good as with cutaneous lymphomas, and no illness-related death was noted in the reports. Finally, on the basis of the published articles, the rate of association is one in 500,000.

Thus, does this give cause for concern or reassurance?

Research is now focused on cases of late seromas after fitting of breast prostheses. What procedure should be followed in these cases? Should we fear a prosthesis-lymphoma correlation?

"LATE" SEROMAS

Several articles published in the July 2011 issue of PRS attempt to answer these questions. The first of them [3] was written by a group of 10 surgeons (all unfortunately associated with the same laboratory). It attempts, after having defined a "late seroma" as any periprosthetic effusion occurring more than one year following the intervention, to form an algorithm to plot an "operating procedure" for the surgeon confronted with this type of problem. Between 1990 and 2010, the authors of the article only found 13 published cases of late periprosthetic effusions, generally in the form of clinical cases: 12 effusions out of 13 occurred around textured prostheses filled with silicone gel. The aetiology of the late periprosthetic effusions is perhaps due to trauma, bacteria, associated with rupture of the prosthesis or a spontaneously occurring haematoma. However, the existence of large cell anaplastic lymphoma, although extremely rare, must be investigated by additional examinations, especially if a palpable mass in the affected breast is discovered, or an axillary adenopathy. The periprosthetic fluid must be punctured under echography, cultured with cytological analysis, especially if the fluid is cloudy and contains debris. If there is a palpable mass, an oncological examination (with biopsy) is necessary.

In the case of effusion persisting without evidence of neoplasia the authors mention 3 options: one which they do not recommend: random biopsies, evacuation of liquid, and puncture under echography in the case of recurrence; one potential option: ablation of the implant and the capsule without replacement but with drainage and antibiotics; the last, which they consider the best: unilateral or bilateral ablation of the implant and the capsule, antibiotics and implant replacement.

The observations of John Tebbets, a renowned expert in breast implants, are very acerbic. He criticises the composition of the group of experts associated with one manufacturer and himself suggests in another article: an extremely detailed

algorithm intended as a guide for surgeons in the diagnosis and treatment of seromas following breast enlargement. It particularly emphasizes the difficulty in eliminating infection with germs of low virulence, especially if antibiotics have been prescribed. Cytological analysis for lymphoproliferative anomalies remains difficult. Tebbets emphasizes the significance of liquid puncture under echography with bacteriological analysis and culture prior to any antibiotic treatment.

These ten pages of analysis do not provide answers to certain questions: What is a "late" periprosthetic effusion: after six months, one year? What is the frequency of seromas associated with large cell anaplastic lymphoma? Is there a correlation with systemic lymphomas? The existence of a lymphoma:breast prosthesis correlation has not been demonstrated. The described cases being very rare and vague. But vigilance remains a necessity.

N.B. Several articles in the PRS of September 2011 once again address the problem of a possible correlation of anaplastic lymphomas with breast prostheses. We will cover this in the next issue of l'Expander.

References

1. Lipsworth L et al. Breast implants and lymphoma risk: a review of the epidemiologic evidence through 2008. *Plast Reconstr Surg* 2009; 123 ; 790-3.
2. Ken B et al. Anaplastic large cell lymphoma and breast implants. A systematic review. *Plast Reconstr Surg* 2011; 127: 2141-53.
3. Bengston et al. Managing late periprosthetic fluid collections (seroma) in patients with breast implants. A consensus panel recommendation and review of the literature. *Plast Reconstr Surg* 2011, 128:1-16.
4. Tebbets JB. Diagnostic and management of seroma following breast augmentation: an update *Plast Reconstr Surg* 2011; 128: 17-31.

SEBBIN IN THE PRESS



BUTTOCK FAT GRAFTING. 14 YEARS OF EXPERIENCE.

Buttock volume enlargement is one of the items on the agenda in aesthetic surgery. Advocators of prostheses are opposed to supporters of fat grafting. The authors have considerable experience in the latter technique. In 14 years, they have carried out 789 liposuctions combined with fat injections in the buttocks in 756 women and 33 men, who they followed-up between 3 months and 12 years. Fat aspiration and injection are carried out during the same operative period. Over the course of the years, the quantities of fat injected have been larger and larger, exceeding 1000cc. The injections are given in the muscles and the subcutaneous tissue of the upper and lower parts of the buttocks and in the trochanteral regions without hypercorrection.

Complications lessen with experience. The most frequent are erythema of the buttocks and fatty necrosis. But, among the first interventions, one serious infection and two fat embolisms are reported.

Several photographs show the results, sometimes good, other times less natural. Those reported are all premature. Despite the experience of the authors, the technique appears clumsy and unconvincing enough.

Buttock fat grafting: 14 years of evolution and experience. Cadenas Camarera L et al. Plast Reconstr Surg 2011, 128: 545-55.

BUTTOCK IMPLANTATION

With Dr Philippe Levan, familiarise yourself with an intervention that sparks off more and more questions from your patients. Consult the film of the gluteal workshop at sebbin.com or request the DVD from Laboratoires Sebbin.



Before



After



Before



After

2 PAIRS OF TWINS FOR 4 SURGEONS

On 24 March 1995, four very eminent American surgeons: Daniel Baker, Sam Hamra, John Owsley and Oscar Ramirez carried out a "live" lifting procedure according to their own technique on 4 twins. The first two, aged 56, underwent surgery performed by Daniel Baker (subcutaneous lifting with SMASectomy and anterior platysmaplasty) and San Hamra (lifting under the SMAS and platysmaplasty). The other two, 49 years of age, underwent surgery performed by John Owsley (under the platysma with liposuction, posterior platysmaplasty) and Oscar Ramirez (subperiosteal lifting with anterior platysmaplasty).

The patients were photographed in an identical way at one year, 6 years and 10 years following the operation and the article reproduces these

photographs. The results were presented at meetings of the American Society for Aesthetic Plastic Surgery. Each surgeon was able to explain his method, speak about its development over 10 years and review the results. It is interesting to read very different and often peremptory points of view on traction direction or on the method for treating neck deformations. Looking at the photographs of the patients who underwent surgery, there is no difference in superiority between the one or the other technique. By contrast, the improvement is still visible ten years following the intervention.

Identical twin face lifts with differing techniques. A 10-year follow up. Alpert BS et al. Plast Reconstr Surg 2009, 123:1025.



COMPLICATIONS OF INJECTIONS OF HYALURONIC ACID

Hyaluronic acid is the most used filler product due to its weak immunogenic activity, its relatively long resorption time and the fact that it can be destroyed with hyaluronidase. However, a Korean team reports 28 observations of sometimes severe, premature or late complications, over a five year period. All the patients (4/5 women) had been treated "elsewhere". The most frequent complications were persistent nodules and inflammatory reactions, but also 3 cases of necrosis (glabella, wing of the nose following injection in the nasogenian furrow) and depigmentation. The zones most often affected were the peribuccal region and the forehead. The therapy consisted of simple applications of ice in the most subtle cases, injection of

hyaluronidase into the nodules, which appeared precociously, and ablation of the granulomas in cases resistant to this treatment.

Commenting on this article, MF. Freshwater, considers that in the absence of precise data on the circumstances under which the injections were carried out (no certainty regarding the nature of the injected product), the conclusions of the authors on the "dangerousness" of hyaluronic acid remain to be demonstrated.

Clinical experience with hyaluronic acid-filler complications

Park TH and colleagues. J Plast Reconst Aesth Surg 2011, 64:892-7.

LIPOSUCTION IN 2011

Envisaged by Illouz 35 years ago following the trials of Schrudde, Fischer and Kesselring, liposuction is still performed according to the principles set out by its conceptualiser: aspiration pressure using one negative atmosphere and tunnel networks maintaining the connective tissue and neurovascular structure of the skin. The authors evaluate new methods designed to improve fat liquefaction, facilitate its aspiration and if possible to allow cutaneous retraction while avoiding formation of irregularities. Classic liposuction (suction assisted liposuction ou SAL) only utilises the energy of the surgeon's arm...Ultrasound assisted liposuction or UAL was first recommended by Zocchi in 1992, who was using titanium probes. Ultrasound transforms electrical energy into mechanical energy by causing adipose cells to burst, which are then eliminated by classic liposuction, which prolongs the duration of the intervention. There was also a risk of burning the skin if the probe was placed too superficially. Ultrasound assisted liposuction yields better results than the classic technique in the fibrous regions (backs) or in secondary liposuction. Some 2nd generation models (with simultaneous aspiration), or with improved probes (VASER) have been described. Laser assisted liposuction does not seem to yield superior results over the classic technique. "Power assisted" liposuction (PAL) with an electric (Micro Air) or pneumatic motor seems to be more effective, less tiring for the surgeon, and seems to yield better results in fibrous regions, gynecomasties and neck dystrophies due to tritherapy. Water assisted Liposuction - WAL - utilises a instrument which injects a solution in different directions (spread out) under variable pressure to dissociate adipose lobules, which reduces oedema and ecchymoses in the follow-up to surgery.

Radiofrequency assisted liposuction (RFAL) uses an internal and external double electrode, the radiofrequency causing lipolysis and dermal contraction.

Nothing new on infiltration techniques (wet, superwet, tumescent).

The authors finish by reminding us that classic liposuction remains the standard technique. The more elaborate techniques require a training period but are often more effective in difficult cases (fibrous, or secondary).

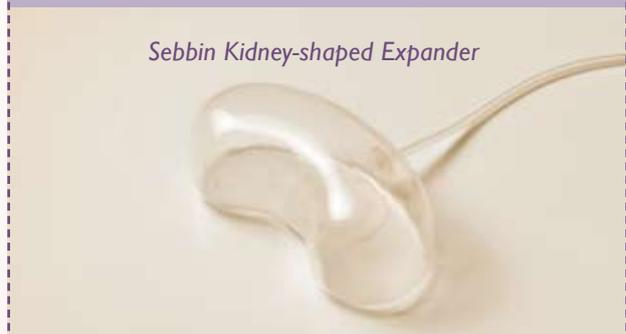
*Liposuction: A review of principles and techniques. Berry MG and Davis D
J Plast Reconstr Aesth Surg 2011: 64 985-92.*



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MIGRAINE, BOTULINUM TOXIN AND SURGICAL DECOMPRESSION

28 million Americans suffer from migraine (that is, 17.1 % of women and 5.6 % of men). Thus the approximate number of migraine sufferers in France can be estimated at 6 million. In 2000, Dr Guyuron had noticed that some of his operated migraine sufferers, on whom he had performed a resection of the corrugator muscle in a frontal lifting technique, had informed him of a significant improvement in their symptoms. In 2002, he improved the number of successes by combining muscular resection with section of the temporal zygomatic nerve. In 2003, he elaborated the theory of trigger points, adding the greater occipital nerve and intranasal abnormalities (septal deviation, inferior and middle turbinates) to the aforementioned muscle and nerve.

The authors of the article retrospectively studied 24 migraine patients. The trigger points were localised through injections of botulinum toxin. The topography of the botulinum toxin injections depends on the site of the pain: close to the occipital tuberosity for the Arnold nerve, in the corrugator for the forehead, in the trochlear region and in the temporal

muscle for the temporal zygomatic nerve. Local "decongestant" treatment is applied in cases of nasal obstruction. 4 to 5 injections of botulinum toxin are usually necessary. They have a diagnostic and therapeutic goal. They are supplemented by surgery: resection of the corrugator, avulsion of the temporal zygomatic nerve, release of the greater occipital nerve, septoplasty and turbinectomies depending on case.

24 patients were treated in this way. 95% experienced suppression or amelioration of the migraine after the injections of botulinum toxin, 19 of these patients underwent surgery and were monitored for an average of approximately 2 years, the migraine completely disappeared in 2 operated patients and was considerably improved in the others. These results must be compared to a 70 % partial or total failure rate in the medical treatment.

Validation of the peripheral trigger point theory of migraine headaches: single-surgeon experience using botulinum toxin and surgical decompression
Janis JE, Dhanik A and Howard JH. *Plast Reconstr Surg* 2011, 128: 123-31.

Laboratoires Sebbin have long been interested in microfilling. With Microfill, Sebbin integrates a new closed circuit technique into its catalogue, based upon over 4 years of basic research on adipose tissue. This technique allows the performance of optimised lipofilling thanks to lipoaspiration with gentle depression, necessary but limited infiltration, low speed centrifugation for less than 15 minutes. The integrity of the adipose tissue is respected and cellular viability is optimal. Reinjection of adipose tissues is carried out with a very fine cannula allowing easy and atraumatic injection.

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DUPUYTREN'S DISEASE, APONEUROTOMY AND LIPOSTRUCTURE



Since the description of retraction of the palmar aponeurosis by Dupuytren (1832), the details of his treatment are debated. Goyrand (1833) and Astley Cooper (1822) preferred simple aponeurotomy in contrast to Dupuytren.

Owing to the hazards of extended or total aponeurectomy (long postoperative sequelae with oedema, joint stiffness) and the frequency of recurrences, subcutaneous needle aponeurectomy has undergone a revitalisation. The technique was immediately adopted by non-surgeons (rheumatologists and even general practitioners) with, at times, serious complications (nerve section) and numerous premature recurrences. Steven Hovius, Roger Khoury and their teams present a technique, which combines multiple aponeurotomies and subcutaneous fat injections. The aponeurotic tendon is disrupted by multiple very superficial pricks until the finger can be extended as completely as possible. Sometimes 50 pricks are required. The skin is released from aponeurotic adhesions. Fat is injected from 2 or 3 orifices into multiple planes (in total around 10 ml per affected digital ray). The goal of fat injection is to restore flexibility to the skin. The intervention lasts 60 to 90 minutes. The results are interesting: improvement in retraction of the proximal interphalangeal joint from 61 to 27 degrees on average, of the metacarpophalangeal joint from 37 to -5 degrees. 94 % of operated patients can resume activity from 12 to 14 weeks. However, several complications should be noted: neural injury and four algodystrophic syndromes. This technique seems interesting, but its results must be compared with those of other non-surgical methods such as collagen injections, and of course those of classical surgery.

Extensive percutaneous aponeurotomy and lipografting. A new treatment for Dupuytren Disease. Hovius SER et al. Plast Reconstr Surg 2011, 128: 221-8.

TREATMENT OF AURICULAR KELOIDS



The Korean authors studied a series of 1436 auricular keloids in 883 patients during a period of 7 years and 3 months. 70 % of them had already been treated without success in another hospital. The proposed treatment comprises surgical excision, followed by magnetic compression. The enormous number of keloids is astonishing. 93 % of patients were women, who, in 96 % of cases, had undergone piercing (these were adults with an average age of 24 years). The treatment received elsewhere had been simple surgical excision, steroid injections and less often pressotherapy.

Following surgical excision, the patients apply magnets 12 hours per day for 6 months, with regular monitoring. Keloid compression was inconsistent: two hours of compression and a half hour break. Pressure was estimated at 35 mm mercury, and the authors were only able to moan about 3 cutaneous necroses and 8 haematomas.

Recurrences were only observed in 10 % of cases. A very detailed statistical study on risk factors for recurrence reveals the importance of prior treatment, a slow rate of growth of the keloid, and - what is most unexpected, a high body mass index.

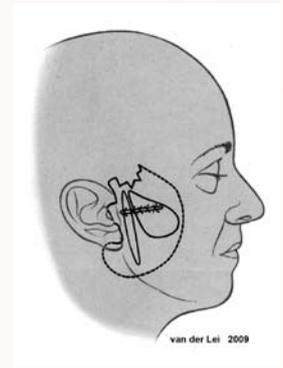
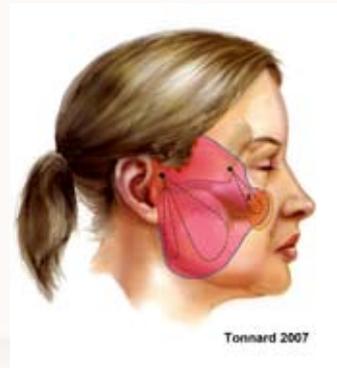
This study - although it does not put forward a new treatment (compression has been used for a long time to treat keloids of the ear lobe) - provides a detailed protocol and critique. The - worldwide - piercing wave leads to the prediction that there will be an increase in the number of auricular keloids.

Outcomes of surgical excision with pressure therapy using magnets and identification of risk factors for recurrent keloids. Park TH et al. Plast Reconstr Surg 2011; 128:431-9.

YESTERDAY

TODAY

SHORT SCAR LIFT



The first attempts at surgical rejuvenation of the face date back from the beginning of the 20th century. In 1919, Passot recommended a limited intervention with small cutaneous excisions.

The same year, Bourguet emphasized the importance of "traction on the muscles". For sixty years, lifting was summed up as resection of surplus skin following cutaneous detachment.

In the 1970s, Skoog, Mitz and Peyronie with the SMAS, Tessier with the mask lift then Owsley, Hamra and Ramirez, recommended deeper and deeper dissection. But in fact, techniques that were more difficult to acquire and perform, greater morbidity and results that were not necessarily superior to simpler techniques (see the review of the article by Alpert and colleagues) discouraged a certain number of surgeons who now recommend limited detachment, suspension of the deep planes by threads (Tonnard), oriented resection of the SMAS (Baker) or a combination of the 2 (Van der Lei).

This development is a return to the techniques recommended in the 1920s - 1930s!



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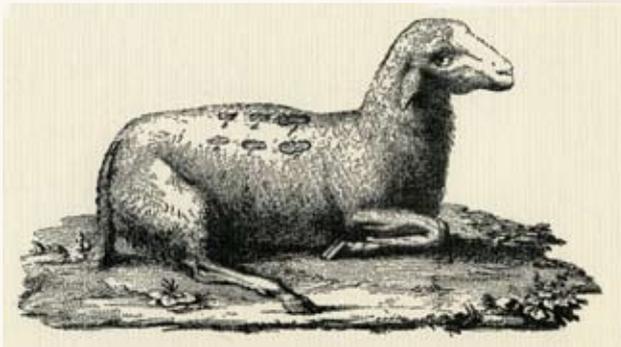
from 21 to 23 November 2011
at the CNIT PARIS la Défense

FLASHBACK

ON THE HISTORY OF GRAFTING

CHAPTER II. THE BARONIO SHEEP

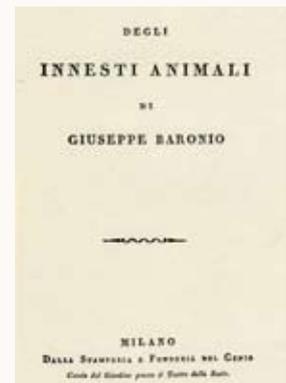
At the end of the 18th century, the interventions performed by Gaspare Tagliacozzi (1545-1599) two centuries earlier, were forgotten or severely criticised. No-one thought that it was possible to remove a fragment of skin and transplant it onto another part of the body. However, plant grafts had been known and practised for thousands of years and numerous investigators such as John Hunter (1728-1793) and Louis Duhamel de Monceau (1700-1782) had attempted to graft fragments of organs onto small animals such as the spur of a cockerel on its crest or the leg of a frog onto a chicken but without success in the latter case.



The article in "Gentleman's Magazine", which, in October 1794, related the story of an Indian auxiliary in the English army, with an amputated nose and who had benefited from a reconstruction with a strip from his forehead, had aroused immense interest among European surgeons. Gireseppe Baronio (1758-1811), was an Italian physician, who had received his diploma from the Pavie Faculty and who had done his thesis on the regeneration of limbs of hot and cold-blooded animals. Very open-minded, interested in botany, in physics and in electricity with Volta, he undertook experiments on animal regeneration, but in unawareness

of species segregation and immunology. Baronio was never able to obtain a professor position and died unrecognised in 1811. A rich patron, Count Carlo Anguissola (1736-1802), welcomed him in one of his huge properties and allowed him to carry out experiments on bulky animals: sheep, mare.

The works of Baronio are described in a book: "Degli Innesti Animali" (on the animal graft) published in 1804 (Fig.1) and comprising 7 parts. In the first two, he recalls the method of Tagliacozzi and the discovery by English surgeons of the Indian method of rhinoplasty. In the third and fourth he addresses grafting attempt on small animals and denounces the charlatans. It is in part six that he describes his experiments on sheep. He removes a full thickness fragment of skin from the upper part of the flank of a ram, from both sides, then he places them on the cut area, the left in place of the right and vice versa. 8 days later, il notes perfect healing. Baronio alters his experiment by delaying the placement of the graft by 18 minutes: he notes a small amount of festering. Baronio performed his experiment on 27 animals (ram, goat, dog) with success, but noted that the transfer of a fragment of skin from a mare to a cow ended in failure.



Part 7 of Baronio's book was devoted to a hypothesis on healing of wounds. The work of Baronio was only recognised fifty years after his death. Today, the sheep depicted in his work, is the symbol of the Plastic Surgery Research Council (Société de recherche en Chirurgie plastique) (Fig. 2).

Next episode: *Paul Bert, from animal grafting to Public Education*