

## Conference Report

# Report on the 11th National Congress AICPE (Associazione Italiana di Chirurgia Plastica Estetica) Held in Rimini, Italy, 12–14 April 2024

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## 1. Preface

The annual congress of the Italian Association of Plastic Aesthetic Surgery (AICPE) is one of the most relevant conference meetings in Europe concerning aesthetic plastic surgery as there are a number of participants and a parterre of invited speakers chosen for their renowned scientific value. The 11th meeting was held in Rimini (Italy) from 12 to 14 April 2024.

The scientific program focuses on implants in aesthetic surgery (breast, face, and body), medical innovations in the trichology field, regenerative medicine, tissue tightening in aesthetic surgery of the face and body, eyelid surgery, male body contouring, and breast asymmetries. The program includes special lectures and panel discussions focusing on VAT and the national breast implant register. In addition, in cooperation with the Academy of Aesthetic Surgery, there was an educational session dedicated to younger participants on basic procedures, and special attention during all the scheduled sessions was also given to the theme of the therapeutic role of aesthetic surgery, which is increasingly becoming an integral part of a clinical pathway useful for restoring the patient's psycho-physical balance. Here is the report of the abstracts accepted for their innovative or cutting-edge messages that were selected for oral presentations in various fields of aesthetic plastic surgery discussed during the congress sections.

## 2. Summary of the Scientific Presentations

### 2.1. Implants in Aesthetic Surgery: Breast Implants

#### 2.1.1. Breast Implants Today: Does the Best Surface Really Exist?

Barbara Cagli

**Introduction:** Breast implants' "world" is becoming increasingly complex and articulated. The aim of this work is to analyze the most important breast implants from a strictly technical and non-commercial point of view.

**Material and Methods:** Technique production and control systems for safety were evaluated among the most important companies along with standards and rules to obtain certification to sell the implants on the market. All the different surfaces were analyzed.

**Results:** Thankfully this emerged as Europe has very strict control systems that ensure very high levels of security for our patients. Lots of surfaces are available on the market; there is no best surface but one most suited to each patient, and it is the duty of each of us to know them and know how to modify our implant technique according to implant characteristics. However, the most important consideration was that the only classification officially recognized to date is the ISO 14607:2018 classification system, which is absolutely inadequate for various reasons; the most important are as follows:



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(1) The classification is based on a numerical parameter “arithmetic roughness” ratio between the width/depth and pore diameter of the prosthetic surface without differentiating the different techniques used by companies to create texturization.

(2) Polyurethane is not present in the classification.

Conclusion: We really hope that companies can help us, as they have already done for the Implant National Registry, to create a more complete classification that takes into account many other parameters and not only the “roughness” of the systems. The duty of any plastic surgeon is to know all the armamentariums that companies place at our disposal and to choose the right implant for each patient.

### 2.1.2. The Best Implant in Breast Surgery

Paolo Montemurro

The best implant for breast surgery simply does not exist. If it did exist, there would be no discussion and every plastic surgeon would use it. The truth is that there is no implant that fits each and every patient, and the key to obtaining a good result is the ability to choose the right implant in each case.

### 2.1.3. Breast Implant Malposition: Prevention and Correction

Paolo Vittorini

Malposition of implants is a complication of breast augmentation that negatively affects aesthetic results. It is one of the most common reasons for revisional breast cosmetic surgery. At the current state of development of prosthetic implant surfaces and scientific knowledge, the focus is shifting to the surface characteristics of the shell and the inflammatory response that develops at the points of contact between the shell and the host tissue. Many experimental studies show that prostheses with a surface with  $Ra < 10$  microns result in a lower inflammatory response:

(1) Reduced friction and rubbing.

(2) For the lowest level of silicone particulate matter that can be produced over the years in the prosthesis-host tissue interface linked to the height of the peaks of the textured surfaces.

(3) For the lower production of biofilms compared to textured ones.

Breast implant surfaces are classified according to several parameters such as pore size or diameter ( $\mu m$ ), maximum peak height ( $\mu m$ ), average peak height ( $\mu m$ ), kurtosis (profile sharpness), measured by the number and height of peaks ( $\mu m$ ), inclination (profile symmetry), measured by the number and depth of valleys and peaks ( $\mu m$ ), density (profile topography measured by the mean distance between morphological features in  $\mu m$ ), and roughness ( $\mu m$ ). The most widely accepted classification at the European regulatory level is the ISO 14607:2018 classification, which is based on surface roughness (changes in surface height with respect to a reference plane), dividing surfaces into smooth, micro, and macro. Any implant with a roughness of  $<10 \mu m$  is classified as smooth, implants with a surface roughness of 10 to  $50 \mu m$  are microtextured, and implants with a roughness of  $>50 \mu m$  are macrotextured.

Capsular contracture continues to be the leading cause of breast prosthetic revision surgeries. The main advantage of using textured surface implants has been the reduction of capsular contracture, especially when the prosthesis is placed in the subglandular pocket. Because textured implants provide resistance and friction to movement, they also help stabilize the implant inside the pocket, reduce skin surface elongation in the lower breast quadrants, and reduce the risk of prosthetic “bottoming out” over time. Smooth surface implants, on the one hand, will reduce the periprosthetic inflammatory response; on the other hand, they will have greater movement within the periprosthetic pocket with the possibility of some drift on the sides of the breast. This can lead to the possibility of a lateral and inferior slippage of the implant, which, lying in the lower part of the breast, will cause an elongation of the skin/gland envelope in the lower quadrants. To obtain the correct positioning of the prosthesis and its stability over time, an accurate preoperative evaluation

and planning, as careful and precise methods of setting up the loggia are essential. We should always have an overall view, always respecting the correct proportions based on the morphology of the body, the shape of the chest wall, and the characteristics of the mammary gland and breast skin. The author presents details of surgical techniques to prevent prosthetic dislocation and malpositioning when using the latest generation of smooth surface prostheses and the principles of corrective surgical techniques where dislocation occurs.

#### 2.1.4. Prepectoral Breast Reconstruction with Titanium Mesh—Three Stitches Technique: A Single Surgeon Experience with 140 Implants

Pier Francesco Cadenelli

**Objective:** Evaluating a technique for pocket mesh and anatomical implants in terms of reliability and safety. Then, evaluating whether the three stitches technique has a good performance in terms of symmetry and stability, we analyzed the results of a single surgeon with 140 implants.

**Methods:** A single surgeon used 140 pocket mesh in titanium with anatomical implants in DtI. In total, 37 were bilateral reconstructions, and the other ones were monolaters. Three stitches secure the implant to the pectorals and they are positioned at 8.12 and 14 o clock and left with long tails on the mesh and on the muscle. It is sufficient to insert the implant in the mesh and suture the tail on the mesh to the corresponding muscle. The time of exposition is very low and risks during manipulations or risks of malpositions as well.

**Results:** In total, 140 implants between 255 cc and 605 cc were used. The technique is precise and fast and permits inserting the implant exactly as we planned. Follow-up was up to 3 years, and no implant was removed for malposition. The perception of symmetry and satisfaction gave really promising results (good, very good).

**Conclusions:** The technique permits reducing complications such as asymmetry, malposition, and rotation. In our casuistry, it seems to reduce generic complications such as intraoperative unseen bleeding and implant exposition with risk of infection. Of course, we need a bigger casuistic to evaluate the technic and its advantages.

#### 2.1.5. Thermal Image Heat Camera for Smartphone in Breast Surgery—Is It a Reliable Device for Evaluating Tissue Vitality?

Pier Francesco Cadenelli

**Objective:** Evaluation of thermal image camera for smartphone for analyzing tissue vitality in breast surgery.

**Methods:** We used a thermal image heat camera device for a smartphone and analyzed 93 post-mastectomy reconstructions intraoperatively. Temperature was detected before and after surgery on the body and on the operated breast. Variations were analyzed between time 1 and time 2 and reference colors for temperature were evaluated as well.

**Results:** In 93 reconstructions in DtI, we registered five minor complications referring to the vitality of the mastectomy flaps. Two were treated with a vacuum device, and three needed recentization and sutures. In every case, TIHC detected a dark blue flap, and the delta between time 1 and 2 was over five. The average delta was usually three.

**Conclusions:** The study needs to be amplified for sure, and many factors have to be integrated to use the device at its best. What we think is that the thermal image camera is an economical device without other costs that can be a good help in the future in selected cases for understanding and individuating tissue reference in breast surgery.

## 2.2. Medical and Surgical Innovations in the Trichology Field

### 2.2.1. Monobulbar Hair Transplant with Robotic System: Advantages and Limits after 7 Years of Experience

Regina Fortunato

**Objectives:** The integration of a robotic system for hair self-transplantation, specifically designed for the extraction of individual follicular units, has yielded considerable advantages in transplant yield and outcomes. However, as with any emerging technique, a comprehensive understanding of its proper indications, advantages, and limitations is crucial.

**Methods:** This study outlines the authors' experiences with a robotic system designed for extracting individual follicular units and creating implant sites in 305 patients undergoing hair transplantation between December 2017 and December 2023. In addition to pre and postoperative photographic documentation at the 12-month mark, the study recorded the ratio between collected and re-implanted follicular units, the total number of implanted follicular units, and any potential incidence of adverse events or complications.

**Results:** The average transplant yield percentage across all patients was 86% (range 74–92%). No complications were observed, except for transient moderate edema in the upper third of the head, resolving spontaneously within 24–48 h. The authors noted enhanced aesthetic outcomes through technical refinements such as optimized extraction and selection phases, follicle implant density, and graft differentiation based on extraction timing.

**Conclusions:** Over seven years of experience, the robotic system for follicular unit extraction has proven to be a safe and effective method, significantly enhancing the aesthetic outcomes of hair restoration procedures.

## 2.3. Implants in Aesthetic Surgery: Facial Implants

### 2.3.1. The Role of Chin Implant in Facial Aesthetic

Andrea Paci

**Aim:** The main indication of a chin implant is to compensate for bone hypoplasia of the anterolateral region of the chin. Nasal pyramid correction surgery is frequently associated with chin implants in patients who also have modest bone hypoplasia. Mentoplasty surgery proves to be a valid help in rejuvenation treatments of both the face and lower third of the cephalic.

**Methods:** The chin implant can be made through lower vestibular access trans mucosal or transcuteaneous from the submental groove. Both access routes guarantee a safe and stable installation thanks to the packaging of an appropriate pocket under the periosteum, at the placement of a stitch to block the implant, with the cover of soft tissue and the closure of the access without tension.

**Descriptions and Results:** Additive mentoplasty certainly is not a recently acquired surgical procedure in the aesthetic surgery landscape, and the variety of chin implants available is rich in several models that satisfy all needs. Additive mentoplasty is, therefore, not reduced to an exclusive increase in the anterior-posterior projection of the chin but with an appropriate choice of implant, it can correct the volume deficits and the projection of the anterior third of the jaw. In addition, it can correct the anterior width and height of the chin. As with other uses of a prosthesis, the achieved result must guarantee, in addition to patient satisfaction, a natural effect that does not arouse suspicions of unnaturalness and maintains the correct function of the lower lip and chin region.

**Conclusions:** Additive mentoplasty has undergone, like many other plastic surgeries that use prosthetic material, an evident evolution thanks to the availability of various models. The surgeon can, therefore, plan a more accurate correction of the volume and projection of the chin that guarantees the best aesthetic result.

### 2.3.2. Malar Augmentation and Custom-Made Implants

Giovanni Zabbia

**Objective:** The malar region plays a fundamental role in the attractiveness of the face. Requests for facial aesthetic procedures are continually increasing, especially requests for malar volumetric augmentation. The use of malar implants, with or without lipofilling, is one of the most used surgical techniques to achieve this goal; all are aimed at increasing malar projection and improving its shape. The authors' objectives are to describe their experiences with malar volumetric augmentation and the initial use of custom-made malar prostheses, their design, indications, and possible complications.

**Methods:** From January 2017 to December 2022, we retrospectively analyzed 55 patients who underwent malar augmentation by means of implants and/or autologous tissue, in association or not with traditional suspension techniques, at the University Hospital "Paolo Giaccone" of Palermo and in several private clinics. Custom-made malar implants were used in 10 patients. All patients were evaluated pre-operatively with a CT scan and, in the case of custom-made implants, with a CT 3D scan and DICOM images extracted and transferred to the implant manufacturing company. Results were evaluated with an objective method by observing pre- and postoperative iconography. Postoperative complications and patient-reported satisfaction were recorded as well.

**Descriptions and Results:** Prosthetic implants allowed us to obtain better results with respect to autologous fat transfer and better predetermine the results if carefully planned. Malar prostheses guarantee a more lasting structural increase if compared to autologous techniques. However, they were associated with potential complications such as infection and exposure. Custom-made malar implants have some advantages over classic prostheses. The combination of both autologous and prosthetic techniques provided the best results with a long-lasting result and high patient-reported satisfaction.

**Conclusions:** Treatment of the malar region is a fundamental step in facial rejuvenation. In our opinion, the use of malar implants is the best solution for malar volumization and for long-term stable results. Custom-made malar implants are a valid alternative to the implants on the market, with a highly aesthetically satisfactory and better result in terms of symmetry, with similar costs compared to classic implants. In selected cases, for example in patients who initially present asymmetries, they represent our first choice.

### 2.3.3. The Importance of Preserving Physiognomy in Face Lifting: The HDS (High Definition SMAS) Thread Lifting

Luca Cravero

**Objectives:** our physiognomy is a representation of who we are and can provide clues about our true nature. The relationship between individual characteristics and physical appearance has been explored in various fields, including psychology, anthropology, and literature. Very often, patients are fearful of surgical facelifting due to concerns about scarring, prolonged social impact after surgery, and, above all, the potential alteration of their physiognomy. The alteration of physiognomy in face lifting is due, above all, to a section of retaining ligaments and, secondarily, to the initially excessively tight appearance of facial skin.

**Inizio modulo:** We present an innovative method for permanent SMAS suspension of face and neck tissue, with no scar, and quick recovery after surgery and we propose it as an alternative to the surgical face and neck lifting for preserving physiognomy.

**Materials and Methods:** We used INFINITE-THREAD (<https://www.threadandlift.com/en/solution/>, accessed on 1 April 2024), permanent suspension threads with the core in polyester and a solid silicon coating. The threads are thin and feature a diameter of 1.4 mm. There are four coags every 1.5 mm, the coags are effective because they are non-reversing, conical, and oriented with an "8 axis" cooking and a 45° degree rotation. The coags are gentle for the patient because of their structure in flexible silicon and their rounded tip.

We treated 40 patients, all women, from February 2022 to February 2024, ranging from 42 years to 73 years old (meaning age 54 aa). Generally, three to six threads for each side were used.

The postoperative follow-up was from 1 to 24 months. No major side effect was observed.

**Descriptions and Results.** We introduce the threads with a parallel J technique in the Smas:

It is performed in five steps:

1: Drawing of the thread path and of the temporal entry points; after that, it is essential to make a picture of the drawing on the patient's face.

2: Operative field making.

3: Assisted anesthesia; after that, local anesthesia of exit and entry points and of the thread paths.

4: Insertion of the threads in the SMAS plane of the face and the neck with different curved needles.

The first thread hooks the lateral portion of the pre-zygomatic space, passes under the orbicularis muscle, and goes through the medial superficial check fat.

The second thread hooks the zygomatic ligament. and, sometimes, the masseteric ligament passes through the medial superficial check fat.

The third thread hooks the zygomatic ligament and the masseteric ligament.

The fourth thread hooks the parotid-cutaneous ligament.

The fifth and sixth threads hook the cervical ligament and pass under the platysma muscle.

5: The final adjustment of the tension with the patient in a sitting position

**Conclusions:** HDS thread lifting is effective, stable, and safe.

**Effective:** Because of the innovative three-dimensional disposition and design of the coags, this thread becomes very powerful. The threads reach the most anterior part of the face and neck and effectively pull them back for about 20 cm; moreover, the insertion of the thread in the SMAS plane makes this type of facelift comparable to deep plane surgical lifting because the work surface is the same.

**Stable:** Infinite-thread is voluntarily permanent (not hydrolyzed) and not elastic, so there is no loss of result due to lengthening (in addition setting, symmetry, and final results are more accurate, and postoperative downtime is shorter). Studies with clinical evaluation of patients treated in 2017 confirm no loss of result.

**Safe:** Infinite-thread is made with biomaterials referenced for more than 50 years that do not give any problem for PET scan/MRI and any future intervention. This thread gives minimal fibrosis, (histological evaluation of 0.010 mm of fibrosis that surrounds the thread); furthermore, it is violet and visible to ultrasound, so its eventual removal is possible and not difficult.

**Natural:** The preservation of retaining ligament and interlayer septae, the SMAS traction without opening and rotating it, permits effectiveness with maximum physiognomy preservation in a standardized and reproducible manner.

## 2.4. Implants in Aesthetic Surgery: Body Implants

### 2.4.1. Surgical Management of Gluteal Implant Misplacement: Personal Two-Stage Approach with Fully Submuscular Technique—Evidence with MRI Study

Valerio Badiali

**Introduction:** Buttocks implants can be placed in four different planes according to distinct surgical techniques: subcutaneous, subfascial, intramuscular, and submuscular. Intramuscular placement can be cumbersome for many surgeons because splitting the muscle leaves a thinner muscular coverage above the implant. Most misplaced cases are with implants placed too superficially, with implant flipping, visibility, and palpability.

**Method:** A first approach with a one-stage procedure led us to failure (implant migration in the previous pocket and flipping). A two-stage procedure led us to a more satisfactory result. In the first stage, we executed implant removal, pocket drainage, and capsulorrhaphy with watchful waiting. After a mean time of six months, the second stage is carried out with a mini-invasive submuscular technique. Implant placement was verified with MRI imaging at a one-year follow-up.

**Description and Results:** MRI imaging shows complete submuscular placement of the implant with obliteration of the previous surgical pocket. A new biconvex implant is totally incorporated into the submuscular space.

**Conclusions:** Management of secondary cases in implant-based gluteal augmentation is a difficult task that must be carefully planned for a good outcome. Therefore, the submuscular placement approach is reliable for both primary and secondary cases.

## 2.5. Male Body Contouring

### 2.5.1. Male Body Sculpturing

Paolo Vittorini

In recent years, plastic-aesthetic surgery is no longer the exclusive prerogative of the female universe, because the requests from the male world related to the desire to improve the characteristics of one's body, and thereby satisfy one's desire and the most intimate need for health, have increased. The distribution in the male sex of dystrophic fat deposits in the abdominal and mammary region with the associated relaxation of the overlying skin structures is a very common condition both in overweight subjects and in those who have had significant weight loss. The abdomen is probably the most painful point of male aesthetics, a source of concern in almost all men, where a correct definition gives way to an important amount of fat and redundant skin tissue. The prominent and/or drooping abdomen with an apron attitude corresponds to a superficial picture of more or less marked adipose skin relaxation and a deep picture of relaxation of the abdominal aponeurotic musculoskeletal system. The surgical solutions that can be adopted for the body contouring program are modulated by the author according to the type of dysmorphia present. Integrated and complementary surgical procedures will be used, starting from three-dimensional liposuction of the abdomen and hips to circumferential abdominoplasty and the various techniques dedicated to the correction of gynecomastia or pseudo gynecomastia, mostly used almost always in association with a harmonious overview of the whole.

In the morphofunctional assessment of the trunk, it is essential to remember that the human body is a three-dimensional structure and should be treated as such. Therefore, all the body areas bordering the abdomen are always treated by us to correct line defects present in the hips and mammary regions through a "male surgical approach" of three-dimensional liposuction associated in the thoracic region with adenectomy, when necessary.

The ultimate goal is to draw a fluid boundary between the different body districts, offering the utmost care in defining details and restoring harmony, grace, and balance to the treated areas. If in the past we were called upon to try our hand at correcting defects or dysmorphia of the male thorax characterized mostly by glandular gynecomastia in young subjects and relatively simple resolving interventions, today we are called upon to intervene surgically to improve even severe dysmorphic conditions with increasingly complex interventions. Science, art, and beauty are concepts that often meet and intersect in the field of plastic-aesthetic surgery, becoming an example of coexistence for the improvement of the quality of life. Preoperative and intraoperative surgical timing and planning will be illustrated together with details of the technique for the aesthetic and functional restoration of the abdomen and trunk in total.

### 2.5.2. The Male Chest Beauty, Surgical Management of Gynecomastia

Ernesto Maria Buccheri

**Objective:** Gynecomastia is a benign enlargement of the male breast. However, enlarged breasts cause anxiety, embarrassment, psychosocial discomfort, and fear of breast cancer. The aim of this study was to assess the experience of gynecomastia patients undergoing mastectomy and liposuction surgery in terms of masculinization of the chest wall.

**Methods:** One hundred eighty-three patients were analyzed for age, chief complaint, position, grade, operation approach, biopsy, and complication between the mastectomy group and the liposuction group, from 2009 to 2023.

**Results:** In total, 156 patients were treated with mastectomy and 27 patients were treated with liposuction techniques alone; all the patients treated with a subcutaneous with or without skin-reducing mastectomy were submitted to liposuction as refinements. Three patients complained of breast lump and lump with pain in the mastectomy group, and two patients complained of enlargement breast and enlargement with pain in the liposuction group. All excision specimens were performed for routine histological analysis, which showed no pathologic diagnosis in patients with mastectomy. The reoperation rates in the mastectomy group and the liposuction group were 1.1%. There was no nipple/areola partial/total necrosis, and pathologic scars were in 2.4%.

**Conclusions:** The surgical treatment of gynecomastia requires an individual approach, depending on symptoms (lump or enlargement) and requirements of patients. Patients who chose mastectomy were looking for reassurance that their pathologic diagnosis was benign. The increase in the number of liposuction patients was reflected in our study because it was associated with superior esthetic results and few complications.

### 2.5.3. Redefining Masculinity: The Invisible Technique in Gynecomastia Surgery and 360-Degree Chest Remodelling

Paganelli Arnaldo

**Objectives:** This study introduces the concept of the “Invisible Technique” in gynecomastia surgery, with the aim of revolutionizing conventional approaches. Focused on achieving minimal scarring, reduced complications, and expedited recovery, the technique employs advanced surgical methods and technology, resulting in the absence of stigmatizing scars for the patient. Through a comparative analysis with traditional procedures, we assess the efficacy and safety of the invisible technique, emphasizing its potential to enhance patient satisfaction and outcomes. The abstract provides insights into the surgical nuances and benefits, contributing to the evolution of gynecomastia treatment modalities towards more patient-friendly and efficient practices.

**Methods:** The surgical technique of liposculpture used is SAFE (Separation Aspiration Fat Equalization) with the addition of gland removal, utilizing one of the most advanced techniques, the “pull-through” (or invisible) technique. The innovation in the surgical technique lies in the minimally invasive approach, with an incision made at the intersection between the groove created by the lower margin of the pectoral muscle (inframammary groove due to gynecomastia) and the anterior axillary line, leaving the areola-nipple complex perfectly intact from a neurovascular perspective and without any visible scar. Through the small access port, we safely remove the mammary gland and perform a meticulous liposuction of the entire chest.

**Descriptions and Results:** This particular intervention allows us to achieve tiny scars (5–9 mm) well-accepted by patients, located away from the areola, making them practically “invisible” or non-stigmatizing and easy to manage postoperatively. Significant attention is given to postoperative compression, achieved with standard medical garments optimized through a highly sophisticated sponge pad placed between the sheath and the chest. The double compression practically reduces the occurrence of the most frequent complications in gynecomastia to zero, namely, seromas and ecchymosis.

**Conclusions:** Careful attention both during the surgical procedure and in the postoperative period allows us to achieve very effective and safe results, with a rapid recovery and a much lower risk of complications compared to traditional techniques. Our data from recent years indicate a constant and accelerated increase in male body contouring procedures, driving us to push the boundaries of our knowledge and techniques even further. Therefore, we will incorporate intramuscular lipofilling at the pectoral, deltoid, and trapezius levels, achieving a 360-degree intervention: A complete remodeling of the chest to achieve true masculinization capable of restoring tremendous self-confidence without any stigmatizing scars.

#### 2.5.4. Revolutionizing Aesthetics: The Synergy of Abdominoplasty and Liposculpture for Optimal Results

Arnaldo Paganelli

**Objectives:** The main goal of this research is to establish an advanced approach that combines abdominoplasty and liposculpture in a single procedure, with emphasis on strategic placement of the abdominal scar only 4 cm from the base of the penis. The primary goal is to improve traditional techniques and develop surgical techniques aimed at minimizing complications. Research focuses on optimizing postoperative aesthetics and increasing intraoperative performance.

**Methods:** The methodology adopted includes a strict sequence of well-defined surgical steps and timing. The surgery begins with a 360-degree trunk liposuction, followed by treatment of the chest with gynecomastia surgery (using a pull-through technique). This is followed by abdominoplasty and concludes with lipofilling of deltoids, pectorals, rectus abdominis, obliques, and possibly buttocks when indicated. Precise positioning of the scar, which will be arcuate in shape and 4 cm from the base of the penis, as detailed in the body of the research, is of paramount importance. The very low position of the scar in the natural fold between the thighs and abdomen makes the postoperative for the patient more comfortable, psychologically it is more acceptable and less stigmatizing, by virtue of its lower visibility and easier concealment. The confirmation of the scar should be closely contiguous and parallel to the natural fold, to achieve the best possible aesthetic results, and to avoid the formation of a scar with a morphology similar to "ox horns". Lipofilling during full male body contouring surgery should always be performed to achieve a much more masculine appearance.

**Results:** The results produced highlight both the aesthetic and functional benefits of this innovative procedure, confirming the success of lipofilling and the effectiveness of accurate scar placement in obtaining the best possible results. Merging the two surgical times into a single procedure allows for more effective, long-lasting, and superior outcomes than adopting separate procedures, which instead increase complexity and complications and worsen the aesthetics of the final result.

**Conclusions:** Abdominoplasty surgery requires meticulous attention from the surgeon, resulting in the need for increasingly advanced techniques. In conclusion, the benefits derived from our innovative procedure on abdominoplasty are reported, outlining the clinical implications and opening prospects for further advances in the field of advanced cosmetic surgery.

#### 2.6. *Implants in Aesthetic Surgery: Facial Implants*

##### 2.6.1. Malar Implants: Aesthetic Improvement and Facial Harmonization

Raffaele Castaldo

**Objective:** This study aims to present the outcomes and challenges of using implants in aesthetic surgery, specifically focusing on facial prosthetics. We discuss five cases of combined facial surgeries, highlighting malaroplasty using IMPLANTECH silicone and ePTFE implants, and examining the procedural efficacy and complication rates.

**Methods:** Five patients who underwent combined facial surgeries, including malareoplasty with IMPLANTECH implants, were selected. We monitored the postoperative course, focusing on complications, particularly infection. The procedural technique, postoperative care, and strategies to prevent and manage complications were critically analyzed.

**Descriptions and Results:** Among the cases, only one experienced an implant infection, which was managed by removing the infected prosthesis, followed by a 6-day course of antibiotic therapy. Three months later, the prosthesis was successfully re-implanted without further complications. The broader statistical analysis indicates a 2.68% infection rate for malar implants. Key to successful outcomes was the postoperative protocol, including strict oral hygiene with 0.2% chlorhexidine mouthwash and a diet of warm, cold, and soft foods for the first 10 days. Additionally, all patients received a 6-day intramuscular antibiotic course with CEFTRIAXONE, and bromelain-based supplements (SOLVIX) were used instead of corticosteroids to reduce postoperative swelling. The intraoral surgical approach involved an incision between the fourth and fifth upper teeth, followed by subperiosteal dissection to create a pocket for the implant, ensuring it was adequately sized to prevent dislocation while avoiding nerve compression to prevent postoperative paresthesia.

**Conclusions:** The use of facial implants in aesthetic surgery, particularly in malareoplasty, shows promising results with a relatively low complication rate. Proper surgical technique, postoperative care, and patient compliance are crucial for successful outcomes. This study underscores the importance of precise pocket preparation and avoidance of nerve damage to reduce the risk of complications, ensuring improved aesthetic and functional results for patients.

#### 2.6.2. Insertion and Stable Fixation of Silicone Implants Using Resorbable Suture: Tricks for an Easy and Effective Technique

Daniele Lizambri

**Introduction:** Implantable alloplastic biomaterials have become an integral part of facial reconstructive and aesthetic surgery. Autologous materials are preferred; however, the harvesting procedure, donor site, and associated morbidity are the disadvantages of using autografts. Allogenic implants, such as silicone, are an effective alternative to autologous grafts in the reconstruction of facial defects. One of the challenges of silicone facial implants is that the prosthesis permanently retains its shape and position. The most recent update of the technique used was in 1994, with the use of percutaneous fixation using nylon sutures removed after 3–7 days. There have been no updates since then. The authors propose an easy way to fix the prosthesis, reducing the risk of postoperative migration, placing and fixing percutaneously the implant at the same time. Further studies are needed to better understand the efficacy and reproducibility of this surgical technique.

**Methods:** From January 2012 to January 2022, 37 patients (15 male, 18 females, 4 transgender), with ages ranging from 24 to 62 years old (mean age 37.6 years old), underwent facial implant placement; a total of 60 implants were placed (11 pair of angles of the mandible implants, 12 pairs of malar/sub-malar implants, and 14 chin implants). In all the cases, smooth silicone implants (Implantech, Ventura, CA, USA) and a 2/0 straight needle absorbable suture (VICRYL 2/0 straight needle, Ethicon Inc., Raritan, NJ, USA, 2007) were used.

**Results:** In all of the cases, bar one, patients healed without complications. One case of implant displacement and infection was recorded. No other complication was recorded. Postoperative surgical swelling lasted between two and three weeks for all the patients. Patients were followed up for at least one year with a maximum follow-up of seven years (mean 1.8 years).

**Conclusions:** The technique described adds some useful tips, compared to the techniques used to date, namely, the use of sutures not only to fix the implant but also to drive it into the harvested pocket. In addition, the use of larger absorbable sutures was kept in place for the first few postoperative days, avoiding accidental implant dislocation during its removal. Despite the short case series, the variations in the fixation of the facial implant

technique proposed by the authors have proven to be advantageous. Further analysis by means of case-control studies is required to gain a more complete understanding of the effectiveness and reproducibility of this surgical technique.

## 2.7. Implants in Aesthetic Surgery: Breast Implants

### 2.7.1. Advancements in Breast Implant Prostheses: A Comprehensive Analysis

Martina Ponzio

**Introduction:** The field of plastic surgery has witnessed remarkable progress in recent years, particularly in the realm of breast augmentation procedures. One of the pivotal aspects contributing to these advancements is the continuous refinement of breast implant prostheses. This article aims to provide a thorough exploration of the latest materials and methodologies employed in breast implant surgery, presenting comprehensive results and fostering a meaningful discussion within the scientific community.

**Materials and Methods:** **Patient selection:** a cohort of 200 patients undergoing breast augmentation surgery between January 2022 and December 2023 was carefully selected. Informed consent was obtained from each participant, and their demographic data, medical history, and aesthetic goals were documented.

**Implant Selection:** Two types of breast implant prostheses were utilized: silicone gel-filled implants and saline-filled implants. The choice between the two was based on individual patient characteristics and preferences. Implant sizes were determined through a collaborative decision-making process involving the surgeon and the patient.

**Surgical Techniques:** All surgeries were performed by experienced plastic surgeons using standard aseptic techniques. The implants were inserted through inframammary incisions, submuscular placement was preferred, and meticulous hemostasis was maintained throughout the procedures.

**Follow-Up:** Postoperative follow-up evaluations were conducted at regular intervals, assessing complications, patient satisfaction, and any changes in implant position or integrity.

**Results:** **Complication rates:** the overall complication rate in the study group was found to be 5%, with the most common complications being capsular contracture (2%), implant rupture (1%), and infection (1%).

**Patient Satisfaction:** A survey revealed that 95% of patients reported high satisfaction with the aesthetic outcome of the surgery, emphasizing improved self-esteem and body image.

**Long-Term Stability:** Radiographic imaging demonstrated the long-term stability of the implants, with minimal evidence of migration or leakage. No cases of implant-associated anaplastic large-cell lymphoma (BIA-ALCL) were observed in the study group.

**Discussion:** The low complication rates observed in our study underscore the safety and efficacy of contemporary breast implant prostheses. The preference for submuscular placement aligns with previous research highlighting its association with lower rates of capsular contracture. Additionally, the absence of BIA-ALCL cases in our cohort supports the ongoing efforts to enhance implant safety through meticulous material selection and manufacturing processes.

**Conclusions:** The continuous evolution of breast implant prostheses reflects the commitment of the plastic surgery community to prioritize patient safety and satisfaction. Our study contributes valuable insights into the materials and methods employed in breast augmentation, emphasizing the importance of tailored approaches to meet individual patient needs. As we move forward, collaboration between surgeons, manufacturers, and researchers remains paramount to further refine and advance breast implant technology for the benefit of patients seeking aesthetic enhancement.

This comprehensive analysis serves as a foundation for future studies and discussions within the scientific community, propelling the field of plastic surgery toward continued excellence and patient-centric care.

### 2.7.2. Primary Breast Augmentation—What Is the Best Implant?

Mattia Siliprandi

**Objective:** Breast augmentation still represents one of the most frequent aesthetic surgery procedures. Currently, the most employed implants are smooth round implants, anatomical and round micro and nano-textured implants, and polyurethane implants. The Author aims to compare the various typologies of implants, comparing each's advantages and disadvantages, in order to identify the implant of choice in primary breast augmentation.

**Methods:** A review of literature has been made on PubMed employing keywords, such as “breast augmentation”, “breast implants”, “dual plane breast augmentation”, “breast surgery”, “breast augmentation complications”, “primary breast augmentation”, and “polyurethane breast implants”, in order to assess the advantages and disadvantages in terms of complications rate and surgical technique between the different types of prostheses. Based on their experience, the authors have focused on surgical technique and aesthetic outcomes after breast augmentation with polyurethane breast implants, underlying the positive aspects of this kind of prostheses compared to others.

**Descriptions and Results:** Polyurethane breast implants allow us to obtain more stable and durable results with a lower degree of surgical complications when compared with other kinds of implants. Primary breast augmentation with polyurethane breast implants is relatively technically easy if certain precautions and principles are kept in mind. Aesthetically, results are comparable to other types of implants.

**Conclusions:** Breast augmentation with polyurethane breast implants allows us to obtain natural and durable results. The surgical technique is comparable to the one adopted for breast augmentation with smooth or micro/nano-textured implants and has a relatively short learning curve. For the authors, polyurethane breast implants represent the primary choice of prostheses when planning a breast augmentation surgery.

### 2.7.3. Round and Anatomical Breast Implants: Technical Precautions to Prevent and Correct Bottoming Out

Antonio di Vincenzo

**Aim:** Analyze the causes and treatments to correct this defect.

**Methods:** selection of patients who showed an excessive distance between the areola-nipple complex and the inframammary fold, such as to bring the CAC above the mammary equator, both operated by the author and by other surgeons.

**Description and Results:** the majority of patients had round implants. To avoid having a prominent upper pole, surgeons who use round implants sometimes tend to excessively lower the inframammary fold. Even with anatomical ones it can happen if accurate pre-surgical measurements are not taken. A scrupulous and careful pre-surgical drawing was performed. During the surgery, the implants were removed and new breast implants were positioned, always anatomical ones. The technique is the dual plane, after having detached the upper pole and raised the inframammary fold with numerous absorbable stitches. All cases were successfully resolved.

**Conclusions:** it must be kept in mind that the CAC is located below the mammary equator and must remain in that location after the surgical procedure. Patients with bottoming out often complain that the areola comes out of the bra. I only use anatomical breast implants because it is possible to control better the position of the CAC. Reoperation is not simple: it is necessary to create a more cranial pocket than the previous one; therefore, in addition to lifting the sulcus it is always necessary to perform a detachment of the upper pole.

#### 2.7.4. P4HB Scaffold: The Impact of a Resorbable Mesh in My Practice

Pierluigi Gigliofiorito

**Objective:** The aim of this study is to achieve the best correction for various mammary conditions using the Galaflex mesh (<https://www.galateasurgical.com/galaform-3d-surgical-scaffold/>, accessed on 1 April 2024). The primary goal was to maintain a durable correction at the 1-year follow-up.

**Methods:** Since 2021, our team (Dr. P. Gigliofiorito and Dr. L. Piombino) has conducted 32 surgical cases involving the use of the P4HB scaffold. We employed this device for various indications, including the following:

- Inframammary fold dislocations
- Synmastia
- Waterfall deformities
- Long-term implant stability
- Breast Mastopexy
- Breast augmentation with large implants (>400 cc)

**Description and Results:** Mammary glands are bilateral structures that can exhibit significant differences in volume and shape. Some of these asymmetries are congenital, while others result from previous surgeries. In my personal experience, one of the most challenging scenarios is correcting differences in shape and volume. The placement of the mesh added approximately 20 min to the surgical procedures but resulted in more stable outcomes. Thanks to this mesh, we were able to achieve a lasting correction of inframammary fold (IMS) asymmetries and synmastias. We also observed positive outcomes with breast mastopexy in terms of stability and fullness of the upper pole, but our follow-up only extended to 2 years. No major complications related to the mesh were recorded. Recovery time remained unchanged.

**Conclusions:** In many cases, the Galaflex mesh has proven to be a viable alternative for treating various breast conditions, leading to more stable outcomes. An alternative to the mesh is the autologous capsule, which is less time-consuming and costly. The mesh has been associated with more stable and long-lasting results in many instances. However, it is essential to keep in mind that perfect symmetry may not always be achievable, and patient expectations should be managed accordingly.

#### 2.7.5. The Management of the Lower Pole with Ergonomic Implants for Breast Augmentation

Daniele Cervelli

**Objective:** To show my surgical strategy in the management of the lower pole with the use of round ergonomic implants for breast augmentation.

**Methods:** Ergonomic implants have an innovative silicone gel that adapts to the position of the patient for a more pleasant look and feel. This feature, useful in the majority of cases, sometimes may represent a drawback, leading to an excessive expansion of the breast lower pole (booming out deformity). In the last five years, I often used these implants for my breast aesthetic procedures; I chose different strategies for different breast types in order to avoid booming out of the inferior pole.

**Descriptions and Results:** The most important feature of the ergonomic implants is the highly cohesive silicone gel that follows the patient's position. It means that when the patient stands, the majority of the volume and therefore of the weight of the implant is in the inferior pole and it may expand it, especially in the case of big implants. In patients with very small breasts, firm tissues, short lower poles, or tuberous-like breasts, I performed a conventional subfascial or dual-plane breast augmentation with ergonomic implants, taking care not to exceed 400g of weight. In patients with medium-size breasts, loose tissues, long lower pole, or ptotic breasts, I performed subfascial or dual plane breast augmentation with the addition of the superficial pectoralis fascia up to the inframammary fold, the fascial extension commonly used in immediate breast reconstruction with definitive implants. It

helps me in reducing the risk of booming out deformity. Obviously, even in these cases, I try to avoid heavy implants.

**Conclusions:** Ergonomic implants have a round shape but an anatomical appearance with the patient standing. They are highly versatile with every kind of breast, but in selected cases, surgical modifications of the conventional technique are useful to obtain more satisfactory and long-lasting results.

#### 2.7.6. Evaluation of Complication and Results Using Anatomical Microtextured Prostheses with Irregular Surface (Polytech Polytex)—A Single Surgeon Experience with 98 Implants Pierfrancesco Cadenelli

**Objective:** Studying reliability and advantages and, in particular, the rotation of microtexturized anatomical implants with irregular surfaces in the first consecutive casuistic of a single surgeon.

**Methods:** The surgeon started to use the implant with this texturization in a casuistic of 98 implants. Follow-up was up to 26 months. Analyzed were 23 augmentations, 17 symmetrization augmentations, 17 contralateral reconstructions with implants, and 9 bilateral reconstructions. Complications and satisfaction were evaluated.

**Results:** A new device and, in particular, a new texturization for the surgeon always requires a learning curve. One of the most feared complications with anatomical implants is rotation Polytex implants that seem to have more integration with the tissues around them. We analyzed the consecutive casuistic of a surgeon with its previous casuistic with different texturization (20-micron texturization). The same hematoma and seroma rate was reported and similar satisfaction for patients and surgeons. The rotation rate instead was 0 compared to the previous case where it was 2%.

**Conclusions:** Irregular texturization was introduced for better integration and better stability. Generic complications and satisfaction were comparable in two cases of the same surgeon with different devices, but in the polytex population, no rotation was reported. Of course, we need a much bigger study about it, but we think that the texturization could be promising in cases at risk of rotation.

#### 2.7.7. Mastopexy with Smooth Implants: How to Make it Safe Mariagrazia Moio

**Objective:** Recent events concerning the implications of macro-textured implants on patients' health have required an adjustment of surgical habits in the choice of the type of breast implants used. Smooth implants are back on the scene, summarizing many indications in breast augmentation. However, their use is not without pitfalls especially when associated with mastopexies. Implant instability due to lack of tissue ingrowth can lead to many complications and unsatisfactory results thus learning how to stabilize the implant is the key to success. We present our experience with smooth implants in association with breast lift and reduction for the treatment of both ptotic and giant breasts.

**Methods:** From September 2021 to December 2023 a new technique was used to treat 143 patients with ptotic breasts needing a lift or giant breasts needing a lift and reduction in association with smooth implants. In particular, 112 were primary cases and 31 were implants replacements with pocket and glandular revision. Data regarding the technical changes, incidence of complications, reoperations, and patient satisfaction rate were collected and analyzed.

**Description and Results:** The overall postoperative complication rate was 1.4%, with a patient satisfaction rate of 98%. These data were compared with the previous technique which had a complication rate of 3.5% thus showing a significant benefit in terms of safety and effectiveness. Thanks to the three specific surgical maneuvers that we describe, the most frequent complication of implant instability was controlled and the stability of the results increased. Technical adjustments have become necessary in the course of experience to compensate for the dynamic characteristics of smooth implants that do not promote fibrotic stabilization of the pocket.

**Conclusions:** Smooth implants represent a valid alternative to conventional macrotextured ones in terms of results in the treatment of ptotic breasts but their use in combination with mastopexy techniques needs some additional maneuvers to control pocket stability and prevent complications. The smooth surface guarantees the safety of the patient and the surgeon as it is not currently associated with the onset of ALCL. Technical adaptations are necessary for the transition to the use of this type of implant for the optimization of patient satisfaction.

#### 2.7.8. Anatomical Breast Implants: How to Use Them to Correct Waterfall Deformity Antonio di Vincenzo

**Aim:** Analyze how to prevent and correct this defect.

**Methods.** Patients who presented an excessively prominent upper pole associated with an uninhabited lower pole in the absence of capsular contracture were analyzed.

**Description and Results:** most of the patients were wearing round implants, but anatomical ones could also be affected, almost always positioned completely in the retro-muscular compartment. The nipple–areola complex almost always faces downwards. The lower pole is constricted and emptied. The surgical consists of lowering the inframammary fold and closing the upper pole with absorbable stitches. Only anatomical breast implants are chosen, the only ones that guarantee emptying of the upper pole and adequate filling of the lower pole. The results have always been excellent, with full satisfaction of the patient and the surgeon.

**Conclusions:** most of the mammary volume is below the mammary equator, according to various classifications it is 1/3 above and 2/3 below, or 45/55. The operation must not change this ratio. By using anatomical breast implants and with precise and careful. Pre-surgical measurements, the appearance of this deformity is always avoided. Reoperation is not easy. The surgeon must have considerable experience with anatomical breast implants. The new shape achieved gives great satisfaction to the patient.

#### 2.7.9. The Choice of Breasts Prothesis with the Help of 3D Imaging Technology Matteo Maffei

**Objectives:** The author describes his approach to planning breast augmentation surgery. The 3D imaging technology allows you to show a preview of the result and is also useful for the surgeon to acquire measurements and realize asymmetries.

**Methods:** The authors retrospectively reviewed the records of 50 consecutive female patients who underwent breast augmentation surgery, comparing photographs before surgery, simulation, and post-surgery.

**Descriptions and Results:** The photographs acquired, before surgery, simulation, and post surgery have demonstrated good reliability of the 3D imaging technology such as being useful for the patient who will be able to preview a simulation of the hypothetical result and be useful for the surgeon to acquire the measurements and realize breast asymmetries and can also simulate hypothetical corrections.

**Conclusions:** With 3D imaging technology, the author has changed his ways of planning breast augmentation surgery. The good reliability of this technology allows the patient to preview the hypothetical result and allows the surgeon to take measurements and realize asymmetries with hypothetical corrections.

### 2.8. Surgery and Regenerative Medicine

#### 2.8.1. Role of Topical Heparin in Skin Regeneration: 17 Years of Experience in Plastic Surgery

Marco Stabile

**Objective:** With 17 years of experience, I predominantly addressed cases involving deep second-degree domestic burns, radiodermatitis, and facial necrosis due to septicemia.

**Materials and Methods:** Throughout the treatment, all patients were administered topical heparin, applied as drops on the damaged skin, at a dose of 4000 international units three times a day. The approach involved leaving the area uncovered and refraining from wetting it.

**Results:** The outcomes proved remarkable; witnessing the complete healing of all patients within 18 days, they were devoid of complications. The gradual formation and subsequent self-shedding of dry crusts contributed to the recovery of the affected area.

**Conclusions:** This protocol allows you to resolve various difficult clinical cases effectively and with a reduction in treatment costs. Its simple use allows the patient greater compliance. The significant reduction in pain in the treated area within a few minutes is an undisputed advantage. The use of the “open method”, which avoids covering the injured area with medications, allows the improvement of the treated area to be observed day by day, providing a clear perspective on the effectiveness of the topical heparin used.

#### 2.8.2. Regeneration of Facial Tissues by Autologous Regenerative Therapy in Combination with Special EBDs

Bovani Bruno

The objective of this talk is to show experience in facial tissue rejuvenation achieved exclusively with the help of autologous regenerative therapy in combination with particular energy-based devices.

Considering the characteristics of the target anatomical structures and the type of treatment to be performed on the patient, a personal protocol will be illustrated that must take into account, first of all, the biological and physical connotations of the devices used.

Some essential points will, likewise, be described, such as the criteria for patient selection, what results can be achieved, and their time duration.

In conclusion, the combination of these methods has proven to be a viable alternative for those who do not yet have the indications for surgery or who, at the moment, are not ready to accept it.

#### 2.8.3. Regenerative Medicine and Surgery of the Cervical Area

Eugenio Gandolfi

**Objective:** The author illustrates the current indications of regenerative medicine and surgery in the context of the use of adipose transfer techniques for the improvement of aesthetic imperfections in the cervical region.

**Methods:** The use of autologous adipose tissue transfer has long been an irreplaceable tool in the hands of physicians to improve skin imperfections. The author illustrates the current scientific literature and his own experience in the use of different methods of adipose autologous transfer.

**Descriptions and Results:** The author illustrates the methods used for the correction of neck imperfections with particular attention to the one called SEFFI. The author presents his own results and his own complications.

**Conclusions:** The author concludes that the methods of regenerative medicine and surgery based on the transfer of autologous adipose tissue are a valid and to date almost unique method to improve the skin imperfections of the cervical region.

#### 2.8.4. Primary or Secondary Indications to Regenerative Breast Surgery

Alessio Caggiati

Regenerative surgery is a powerful tool in breast surgery. Indications differ from minimal correction to total breast reconstruction with a huge variety of intermediate clinical circumstances that can benefit from the implant of fat- and adipose-derived stem cells.

The indication may be primary or secondary following previous surgical procedures, isolated or associated with breast augmentation by a prosthesis.

The authors present a large series of regenerative surgery procedures, monolateral or bilateral, with specific clinical indications and sometimes associated with the use of physical devices useful to increase the quality and compliance of the recipient tissues.

In conclusion, differences between filling or regenerative procedures are discussed together with the specific fat-processing procedures required for each different purpose.

#### 2.8.5. Filler and Biofiller in Comparison, Single Use or in Association—Two Better Than One! New Trends and My Indications

Antonella Quaranta

**Introduction:** With new techniques in aesthetic medicine, it is possible to counteract the signs of aging and offer our patients minimally invasive treatments without downtime for a natural “NEW FULL-FACE REJUVENATION” result.

The use of hyaluronic acid (HA)-based fillers is now a gold standard in aesthetic medicine, but in recent times, regenerative medicine is also becoming increasingly studied and practiced. In fact, the regenerative power of stem cells—preadipocyte, undifferentiated, unspecialized mesenchymal cells derived from autologous adipose tissue (ADSC) with regenerative capabilities—is now well known.

The combination of HA- and ADSC-based treatments allows to increase the viability of stem cells, as a biological scaffold of support along with supplementation and maintenance of the adipose AFG.

**Aim:** With this study, the author aims to analyze the efficacy and safety of the association between resilient hyaluronic acid fillers and Adipose-Derived Stem Cells (ADSCs), well-known as biofillers. The author then compares the efficacy and safety of biofillers with those of HA-based dermal fillers as is, evaluating how to achieve the best aesthetic results in terms of naturalness and harmoniousness in full-face treatments.

**Materials and Methods:** Fifty patients were examined; specifically, 25 patients treated with dermal fillers of cross-linked HA with a low percentage of BDDE and 25 patients with B.A.F.F.I. technique (Biofiller Autologous Fat Filler Injection), which was obtained by the combination of AFG (Autologous Fat Filler) with cross-linked HA with resilient properties.

The B.A.F.F.I. technique is a minimally invasive treatment, which was performed with local anesthesia only at the cannula access point, using a fan and a linear retrograde release technique; it is painless and has immediate results.

**Results:** The results obtained with biofillers, thanks to their regenerative action, make it an “ideal filler”, with high regenerative power for the skin of the entire face in the redefinition of missing volumes and contours, giving a youthful and radiant appearance. In particular, the improvement in tone, elasticity, with a lifting effect, and skin hydration, with reduction of roughness and increased firmness, was noted even on atrophic and scarred skin.

All patients were visited 1, 3, and 6 months after the procedure and in all cases still showed a noticeable result, demonstrating the effectiveness and durability of the treatment.

The 25 patients treated with HA with the same resilience and cross-linking properties showed, for the same amount injected, perfect volume increase with attenuation of depressions but shorter duration in terms of resorption time and absence of regeneration.

No notable adverse events occurred, but only mild transient redness of treated areas in 10% of cases and mild transient bruising in 25% of cases.

**Conclusions:** Biofiller represents a new frontier of full-face treatment with aesthetic medicine; it is particularly effective and also very safe. It is a technique capable of tissue regeneration, and it is also recommended during surgical procedures such as surgical lifting. It is optimized by the use of surgical instrumentation and is a repeatable and scarless treatment.

## 2.9. The Look: Improving without Distorting the Palpebral Region

### 2.9.1. Palpebral Ptosis: Surgical Techniques, Possible Complications

Anna Scevola

**Objective:** Eyelid ptosis is often an unrecognized pathology that is sometimes difficult to detect and that affects the levator palpebrae muscle. Ignoring this pathology can lead to poor results in upper lid blepharoplasty. The treatment of ptosis can take place in different ways, through simple plications, reinsertions of the aponeurosis, or shortening of the levator muscle, and finally through suspension techniques (TFL).

**Methods:** a population of 100 patients operated from 2013 to 2023 by the same operating surgeon is analyzed. The population is mixed, both in terms of age and sex, as are the correction techniques used (plication, shortening, reinsertion of the aponeurosis, and suspension with TFL). The evaluation of patients is performed in a blinded manner, i.e., through clinical evaluation and patient satisfaction survey.

**Descriptions and Results:** In total, 90% of patients were satisfied with the surgery, despite some minor complications. The most common complication was Hering's phenomenon in bilateral ptosis, which led to the need to operate or re-operate the eyelid affected by secondary ptosis. Among minor complications were a slight difference in height of the eyelid margin in bilateral ptosis, lower lateral eyelid margin, and incomplete correction of the ptosis despite excellent improvement of the CV. There were three cases of upper eyelid entropion in the series, one of which led to serious complications (the patient refused further surgery and is now on periodic treatment with botulinum toxin).

**Conclusions:** Eyelid ptosis is a frequent pathology that deserves to be known. Its treatment presents pitfalls; therefore, it represents a niche surgery, especially in the most difficult cases or in particularly demanding patients.

### 2.9.2. Techniques to Reduce the Incidence of Ectropion in Blepharoplasty

Domenico Riitano

**Objective:** The aim of the report will be the presentation of surgical techniques to reduce the postoperative incidence of a fearful complication such as ectropion of the lower eyelid.

**Methods:** The "double plane" technique in lower blepharoplasty consists of detaching the skin isolated from the orbicularis muscle that is left unscathed. The treatment of adipose pseudo hernias is generally carried out transconjunctivally, thereby leaving the orbital septum intact. The healing processes will, therefore, not be able to cause skin retraction, limiting the tendency to ectropion.

**Descriptions and Results:** Using these techniques, there is a significant reduction in the incidence of ectropion as demonstrated by decades of clinical practice.

**Conclusions:** Classic blepharoplasty techniques involving the resection of a portion of the orbicularis muscle were burdened by a non-negligible incidence of ectropion. With this double-plane technique proposed for lower blepharoplasty, the incidence of ectropion is reduced.

### 2.9.3. Optimizing the Eye Frame: Not Just Blepharoplasty

Valentina Pino, Carlo Gasperoni

**Introduction and Objective:** The eye frame, or the frame of our gaze, represents the focal point of our daily communication. It is composed of the eyebrows and upper and lower eyelids. A low eyebrow, an upper eyelid with an excess of skin, and "fat bags" under the eyes are just some examples of eye frame imperfections. It is possible to improve the look thanks to a synergy of ancillary techniques, which, combined in various ways, can give harmony again, without distorting the patient's identity. In our experience, for midface rejuvenation, in addition to upper and lower blepharoplasty, we usually use a modified De la Plaza technique described in 1991. In this technique, the dissection of the temporal SMAS towards the middle third of the face was made following the suprapariosteal plane in the periorbital and zygomatic region. Fat grafting in the periocular and zygomatic

regions allows further improvement of the volumes that are lost or displaced with age. The midface lift is performed, if necessary, together with a conservative upper and/or lower blepharoplasty with or without fat repositioning, with or without fat grafting, depending on the clinical case. The purpose of this study is to show our experience with gaze rejuvenation using a variable combination of techniques.

**Materials and Methods:** The gaze rejuvenation is made approaching the upper eyelid with conservative upper blepharoplasty and the lower eyelid with transconjunctival fat dissection. In some selected cases, we perform fat repositioning and orbicularis ligament release (ORL). Skin pinching removal is made additionally if necessary. The midface lifting technique is made by approaching the zygomatic region by undermining between deep and superficial temporal fascia. The lateral orbital thickening (LOT) along with orbital retaining ligaments (ORL) was released. The soft tissues overlying the prezygomatic space thus may be shifted upward and laterally. This approach allows a complete repositioning of midfacial soft tissues without preauricular scars. Fat graft is used routinely to improve the smoothness of the transition between the inferior lid area and the zygomatic area. In addition, when volume enhancement is needed, a fat graft is used to improve other regions such as the nasolabial fold and zygomatic region. The complications rate and long-term aesthetic results were evaluated in over 2500 patients who underwent periorbital rejuvenation.

**Results:** In the early postoperative period, the complications rate was very low, with 0.6% of cases of self-resolving postoperative conjunctival chemosis and 0.4% of cases of temporary stupor of the frontotemporal branch of the facial nerve in cases with midface lift. In the long-term postoperative period, we observed 0.8% cases of skin pigmentation of the upper or lower eyelid and recorded no cases of permanent facial nerve damage. In the long term, we never observed malposition of the eyelids because the techniques applied were conservative. The rejuvenation of the eye frame obtained with these combinations of techniques allows us to achieve good aesthetic results, conserving a patient's personal facial identity.

**Conclusions:** An effective midface and eye rejuvenation is possible by tailoring the surgical approach to the patient based on the degree of blepharocalasis, eyebrows, and facial soft tissue ptosis with a lower morbidity rate. We believe that the key to the success of this surgery is the synergy of the various techniques applied. Constant, natural, and long-lasting aesthetic results were achieved.

#### 2.9.4. Tear Trough Deformity: How to Manage It?

Mattia Siliprandi

**Objective:** Tear trough deformity correction is one of the most common requests in aesthetic medicine and surgery. Different techniques have been described in the literature in order to correct this defect: dermal filler treatment, fat transfer surgery, and lower blepharoplasty with fat transposition. The authors analyze and compare these methods focusing on anatomical considerations and treatment planning and the advantages and disadvantages of each technique.

**Methods:** A review of the literature has been made on PubMed employing the keywords "tear trough deformity", "tear trough correction", "tear trough dermal fillers", "lower blepharoplasty", "tear trough fat transfer", "tear trough fat grafting", and "tear trough anatomy" in order to give an updated picture of the current surgical and non-surgical methods for correcting the tear trough area. The authors have then considered and analyzed their own cases and patients, dividing them into four sub-categories, based on the presence/absence of fatty bags and on the anterior malar projection. An ideal treatment plan is presented for each category. The authors finally propose a flow chart in order to correctly choose the best technique for each patient's category.

**Descriptions and Results:** The codified possible techniques to correct the tear trough deformity are dermal filler injection, fat transfer surgery, and lower blepharoplasty with fat transposition.

Based on the analysis of the literature and on the personal experience of the authors, the gold standard treatment for each of the four identified sub-categories is as follows: blepharoplasty with fat transposition in patients with fatty bags and neutral or positive vectors; fat transfer or dermal fillers treatment in patients with no fatty bags and neutral or positive vector. Patients presenting a negative vector should be considered for contextual or preventive treatment of the malar area with dermal fillers, fat grafting, or midface lift.

**Conclusions:** The choice of the correct technique for correcting the tear trough deformity relies on a correct and careful patient assessment. The malar area projection and the presence of fatty bags play a determinant role in the choice of the best corrective technique. Fat transposition lower blepharoplasty, fat transfer surgery, and dermal fillers are all effective techniques in correcting tear trough deformity if performed when indicated. Attention should be paid when addressing and treating this area with dermal fillers in order to avoid long-term complications, such as chronic edema and the Tyndall effect.

#### 2.9.5. Advantages in Blepharoplasty with Plasma Scalpel

Mariafranca Maietta

**End Point:** Starting from anatomy knowledge, lessons learned in surgery practice, and a passion for electrosurgical medical devices, I decided to use the biological effect of plasma ablation on surgery in my daily practice, in particular blepharoplasty. I would share the experience of blepharoplasty performed with a plasma scalpel.

**Methods:** The plasma scalpel is a new technique consisting of the generation of plasma energy through the production of ionized energy that thermally heats, evaporates, and finally discharges tissue through vapor layer formation. In total, 10 patients were treated who were between 45 and 75 years old (mean: 55 years). All of them underwent blepharoplasty.

**Descriptions and Results:** Ten patients underwent upper blepharoplasty during 2023. I used to perform this kind of operation using the efficacy of the plasma scalpel, which was based on the physical effects of the electric current and electric field. During surgery dissection, there is no bleeding; in this way, it is easier and faster than the cold scalpel.

**Conclusions:** Some studies demonstrated reduced thermal injury depth, inflammatory response, and scar width in healing skin compared with electrosurgery. These results suggest that the use of plasma scalpels may provide clinically meaningful advantages over conventional or electrosurgery during human cutaneous wound healing. Thanks to plasma dissection, the patient has no bleeding, less edema and ecchymosis, and less pain after surgery. It has a faster healing process than the cold scalpel and a shorter downtime. We used GAIS and SGAIS to evaluate MD and patient satisfaction.

#### 2.9.6. Transcutaneous Lower Blepharoplasty; Evaluation of Results through 3D Analysis

Maria Servillo

**Introduction:** Transcutaneous lower blepharoplasty is a complex procedure characterized by a high risk of complications, primarily the onset of postoperative ectropion and lagophthalmos. This study aims to investigate the changes in the position of the lower eyelid after surgery, using anthropometric measurements obtained through a 3D software application to achieve a more precise and objective evaluation of the surgical outcomes.

**Materials and Methods:** Twenty-one patients undergoing transcutaneous lower blepharoplasty from January 2021 to July 2021 were recruited. In all cases, the surgical technique involved fixation of the lower eyelid via static canthopexy and fixation of the orbicularis muscle to the orbital frame. Caliber measurements and standardized photographic documentation were obtained in all cases and repeated at every follow-up check. This documentation was then used for 3D image processing by software through which

specific measurements for evaluating the position of the lower eyelid before and after surgery were performed.

**Results:** Preliminary analysis showed that the surgical technique used allows adequate maintenance of the lower eyelid position as the measurements obtained through the 3D software showed no significant variations between preoperative and postoperative data. These measurements enabled a more analytical and objective evaluation of the surgical results.

**Conclusions:** The surgical technique used for transcutaneous lower blepharoplasty proved to be effective and safe, reducing the risk of iatrogenic ectropion and lagophthalmos. The measurements obtained with the 3D software allowed for a more accurate analysis of the changes in the position of the lower eyelid before and after the procedure.

## 2.10. Breast Oncoplastic Surgery: Aesthetic Surgery and the Continuous Challenge of Symmetrizations

### 2.10.1. Symmetrization after Oncologic Surgery of the Breast

Alessio Caggiati

Asymmetries of the breast are a challenging topic in cosmetic surgery, but after oncologic breast surgery, the symmetry between the two breasts is much more complex to achieve.

The authors present different conditions of breast asymmetries following oncoplastic breast surgery or breast reconstructions by implants.

These procedures usually lead to asymmetries requiring different techniques (autologous or heterologous) to be corrected. The shape of the contralateral healthy breast, psychological conditions of the patients, age, and smoking habits are to be considered for appropriate surgical planning.

Knowledge of the evolution of different cosmetic procedures in medium and long-term follow-up is also important in order to inform patients about needing further correction during their life. Critical evaluation of anatomical implants and the potential benefits of round implants in selected patients is also discussed. Finally, regenerative surgery finally is considered in selected cases to achieve excellent results in the long term.

### 2.10.2. Immediate and Delayed Breast Symmetrization after Mastectomy

Greta Tondini

**Objectives:** Breast reconstruction after mastectomy is, nowadays, considered to be an integral part of cancer treatment. Moreover, women who underwent reconstructive surgery, whether autologous or implant-based reconstruction, have high expectations for the outcome of the breast aesthetic. Breast symmetry is considered to be the most important factor that may affect satisfaction and well-being. Reconstruction, despite the efforts, usually does not result in proper postoperative symmetry with the contralateral breast. Clinical factors, such as mastectomy type, reconstruction type (implant-based or autologous reconstruction), the timing of reconstruction (immediate or delayed), and radiation therapy (RT) influence postoperative symmetry. Surgeons aim to improve the patient's quality of life by recreating a natural-looking breast, as similar as possible to the contralateral, and treating the non-operated breast to be similar to the reconstructed one.

**Methods:** Patients were categorized into different groups according to the type of reconstruction (implant or autologous-based) and the timing of the contralateral symmetrization surgery (simultaneous/delayed). We evaluated the best surgical strategies to obtain symmetry for each category.

From 2019 to 2022, we retrospectively analyzed 80 patients who underwent breast symmetrization at the University Hospital of "P. Giaccone" of Palermo. In order to obtain symmetrization, we used periareolar mastopexy, inverted T mastopexy, adipoglandular resection, liposuction with or without implants on the contralateral breast, lipofilling, and skin or tissue reduction on the reconstructed breast. Regardless of the used procedures in 40% of the cases, we performed immediate contralateral symmetrization, and in 60% of

the cases we performed delayed symmetrization. In 20% of cases, we performed delayed lipofilling to improve symmetrization.

**Description and Results:** Mastectomy type, reconstruction type, reconstruction timing, and RT are factors significantly associated with postoperative symmetry. Despite simultaneous symmetrization, avoiding additional surgical time for the patient, we obtained better results with delayed symmetrization due to the fact we waited until the stabilization of the reconstructed breast was complete. Generally, in cases of implant-based reconstruction, we opt to use contralateral implants in order to perform as similar surgical techniques as possible. In cases of autologous reconstruction, except for the cases of contralateral hypomastia, we prefer to use breast tissue reshaping.

**Conclusions:** Symmetry is one of the most important goals in mammary reconstruction for the quality of life of the patient. We have many surgical procedures to symmetrize the breasts. In our experience, 6 months after the reconstructive procedure, we have a better surgical judgment of from whom we can obtain an optimal symmetrization. Moreover, by using similar surgical techniques, we gain long-term stable results.

### 2.10.3. Aesthetic Quality of Nipple–Areola Complex Reconstruction: A New Tool for Cosmetic and Stable Results

Giuseppe Cuccia

**Objective:** Nipple–areola complex reconstruction is the final step of the reconstructive procedure in breast cancer patients. Nowadays, a combination of a local flap for nipple reconstruction and skin grafting or tattooing for areola reconstruction is deemed a first choice. In this paper, we are using a new technique with a nipple reconstruction implant (NRI).

**Methods:** We reconstructed a nipple–areola complex following mastectomy for breast cancer. The implant was comprised of a floral-shaped nitinol frame that was coated with a silicone capping specially designed to allow for anchoring the implant to adjacent tissue and maintaining a soft feel.

**Results:** The loss of projection of the new nipple was minimal and had a significant impact on the patient's satisfaction. The use of the device in post-mastectomy radiotherapy patients with allograft augmentation showed a minor loss of nipple projection, but it may be exposed to a relatively increased number of postoperative skin necrosis.

**Conclusions:** NRI is a good solution that enables women who have undergone post-mastectomy breast reconstruction to regain their self-confidence and positive body image by finalizing the look of the reconstructed breast with the appearance of a natural nipple structure.

### 2.11. *The Look: Improving without Distorting the Palpebral Region*

#### 2.11.1. Upper Blepharoplasty with Change of Eyelid Position—Technical Approach for Natural Results

Stefano Gentileschi

**Objective:** In the last 20 years, traditional blepharoplasty has undergone significant changes, adapting to the new aesthetic standards of the orbito-palpebral region. The standard procedure for the upper eyelid now involves removing excess skin, minimal or no removal of the orbicularis muscle, and a very conservative reduction of the fat in the adipose bags, especially in the nasal part of the eyelid. Frequently, adipose tissue is added in cases of sunken eyelids. The standard technique is enhanced with various additional techniques in the presence of significant laxity or when it is necessary to modify the position of the eyelids to correct ptosis.

**Methods:** The authors examined 78 cases of patients who underwent primary or secondary upper blepharoplasty, with a follow-up of at least one year, where interventions to modify the eyelid position were combined with the standard technique. The analysis included indications, techniques used, results achieved, and complications encountered.

**Description and Results:** To treat ptosis of the upper eyelid, the most used technique was the correction of levator dehiscence, which was performed through disinsertion and subsequent re-anchoring with the triple steps technique.

**Conclusions:** In the presence of ptosis of the upper eyelid, it is always advisable to address this aesthetic and functional issue during blepharoplasty. The techniques for correcting ptosis through disinsertion and re-anchoring of the levator have proven to be safe and effective in achieving satisfactory results both aesthetically and functionally. Patients who request aesthetic blepharoplasty, which is associated with the correction of an eyelid position problem, have increasingly high expectations. Therefore, the technique used must ensure predictable, aesthetically valid, and functionally effective results, with a low risk of complications.

#### 2.11.2. Rejuvenate the Gaze Meeting the Current Criteria for Satisfactory Solutions Francesco Romeo

**Introduction, Objectives, and Purpose of the Study:** The gaze is very important for the youthful appearance of the face and is a relevant element, the most important, in non-verbal communication. Our personal experience is based on new criteria to obtain satisfying solutions, without subverting the harmony of the physiognomy.

**Materials and Methods:** Through their presentation, the authors provide examples of each type and make the state-of-the-art rejuvenation of the gaze, with details of the upper and lower eyelid, clear to understand, using current adaptation of traditional technique in surgical approach, lipofilling, and HA filler implants where possible. There will be considerations regarding innovative technologies that have a great media impact. The authors have treated primary and secondary cases in many patients with all the techniques, and they have been divided into three groups referred to as low-, middle-, and high-difficulty anatomical situations to be resolved.

- Inclusion criteria: patients with gaze dysmorphism or psychological, physical, or social distress
- Exclusion criteria: autoimmune diseases in an active phase, infections or trauma in or next to the area to be treated, and patients with no idea of the target result offered by the technique.
- A picture file for every patient, including pre-op and post-op photographs, is mandatory, and, to achieve and allow for a full and unquestionable comparison of results, personal pictures of the patients at younger ages as well.
- Useful tools for final consideration are both (1) the clinical evaluation of the result (by the doctor) and (2) the comparison of patients' pre-op and post-op pictures after standardized digital photography (by doctor and patient), as well as (3) a score of a satisfaction rating scale based on the patient's agreement after having seen pre- and post-op pictures.

**Results:** The achieved results have, in all patients, ticked off a score around 0 and 5, after twelve months follow up, on a satisfaction rating scale from 0 as the worst score and 5 as the best one (according to the 5 score as the best final result "expected" by the patient after treatment).

**Conclusions:** Treating the gaze is very difficult, and finding the solution for rejuvenation is difficult; however, it is very stimulating for the practitioner. Correcting the gaze without upsetting the patients' physiognomy is the author's mission.

## 2.12. Gender Dysphoria: The Therapeutic Role of Aesthetic Plastic Surgery

### 2.12.1. Treatment of Breast Asymmetries: Techniques and Results

Giovanni Zabbia

**Objective:** The treatment of breast asymmetry may involve the use of breast implants: this choice mainly depends on the grade of asymmetry and on the patient's desires. The availability of several shapes and dimensions of implants determines a higher complexity in the preoperative planning and can lead to a greater variability in postoperative results, as well as an increase in postoperative complications. Definitely, the main goal of breast symmetrization surgery is to achieve a pleasant and harmonious cosmetic appearance, simultaneously providing a stable and long-lasting result and high patient-reported satisfaction. In this work, we report our experience in the treatment of breast asymmetry through an evaluation of the employed techniques and the postoperative results.

**Methods:** From January 2020 to April 2023, we retrospectively analyzed 180 patients who underwent breast symmetrization at the University Hospital "Paolo Giaccone" of Palermo and in several private clinics. Patients' demographic and clinical characteristics, surgical techniques, postoperative results and complications, and length of follow-up were recorded and analyzed. For each patient, a careful anatomical evaluation was carried out in order to precisely establish the grade and the characteristics of breast asymmetry. Clinical pictures were collected preoperatively and at 12, 24, and 36 months postoperatively.

**Description and Results:** The mean age was 30.3 years (range 18–47). In 48% of cases, patients presented with a mild grade of asymmetry; 35% had a moderate asymmetry, and 10% had a severe asymmetry. In 7% of cases, patients presented with an asymmetric tubular breast. For the correction of asymmetry, we tried to employ techniques to be similar as much as possible for the two breasts. All patients underwent bilateral implant positioning; the breast implant shape was anatomical in 85% of cases and round in 15%. The implant volume was identical for the two breasts in 95% of cases, while prostheses of different dimensions for the two breasts were employed in 5% of cases. For soft tissue management, inverted T or periareolar mastopexy, dermoglandular resection, liposuction, and fat grafting techniques were employed. In 100% of patients, all the required procedures were performed in a single stage with the aim of performing a definitive correction. The mean follow-up was 26.3 months (range 12–48). Postoperative complications occurred in 18.9% of cases ( $n = 34$ ): three cases of prosthetic extrusion, one case of NAC necrosis, five cases of infection, and twenty-five cases of periprosthetic seroma. We did not observe any case of hematoma. Forty-five patients (25%) with preoperative moderate-to-severe asymmetry and tubular breasts required secondary corrective procedures after 6 to 12 months for the persistence of residual breast asymmetry. In 15% of cases ( $n = 27$ ), further corrections were performed for scar revision due to an unsatisfactory scar appearance or for NAC asymmetry.

**Conclusions:** Careful preoperative planning is crucial for the choice of the most appropriate surgical technique, which strictly depends on the grade and the characteristics of breast asymmetry. In our case series, we observed a high patient-reported satisfaction. Secondary procedures were mainly proposed by the surgeon and not requested by the patient itself and consisted of fat grafting for residual asymmetry and scar revision due to unaesthetic scar appearance. Currently, there is no consensus on the optimal surgical management of breast asymmetry. The treatment of the condition is challenging: there is not a single solution to a single problem, and the level of complexity is high because the correction of a single parameter may vary the others with an inconstant influence. In our experience, the best results are achieved through similar surgical techniques that led to similar breast composition between the two sides.

### 2.12.2. Chest-Wall Contouring in 487 Trans AFAB Patients: Personal Technique with a New Algorithm Validated Using TRANS-Q Questionnaire

Giulia Lo Russo

**Abstract:** Introduction: The recent increase in the number of scientific publications on transgender surgery, specifically in chest-wall contouring surgery in trans-AFAB (assigned

female at birth) people affirming surgery, reflects the importance of these to contribute to the strengthening of the self-image and facilitates living in the new gender role. The main goal is to masculinize the chest by removing the female contour. Chest contour, scar placement, scar shape, scar length, nipple-areola position, nipple size, and the areola size are the key points. We describe a completely new algorithm created by the senior author (G.L.R.), which we used in our group of trans-AFAB patients, and validate it using the TRANS-Q questionnaire. **Materials and Methods:** From 2016 to 2023, 487 consecutive FtM transgender patients underwent surgery as part of the new algorithm, which is based on the assessment of the position of the nipple-areola complex (NAC) to the pectoralis major and can easily guide the surgeon between the three surgical options: (1) periareolar (PA), (2) hemipiareolar (HP), and (3) a double incision (DI) technique with free nipple graft. In 97 patients, the TRANS-Q questionnaire was used to evaluate patient-reported outcomes (PROs), pre- and postoperatively, and the differences were evaluated using the Wilcoxon Sign Rank Test. **Results:** The patients' survey revealed a very high satisfaction rate with the aesthetic results. All patients reported good TRANS-Q satisfaction with their chest shape, sexual well-being, and quality of scars at short- and long-term follow-up (between 3 months to 7 years). **Conclusions:** The authors propose a new algorithm to approach trans-AFAB patients' surgery. The high level of satisfaction validated by the TRANS-Q questionnaire can be guaranteed by a clear preoperative plan with this new algorithm that we believe can simplify the surgical choice and by the personal technique that is full of important details that help reach a very masculine appearance of the thorax. The right choice between the three techniques and a detailed surgical technique aiming to emphasize the pectoralis muscle are the key points of our approach to give a masculine appearance to the chest. The great aesthetic results and the low rate of complications suggest the validity of these personal techniques.

#### 2.12.3. Feminizing Techniques of the Malar Region and Cheek Reshaping in Transgender Patients: Malar Implants, Lipofilling and Repositioning/Removal of Bichat's Bulla

Fernando Rosatti

**Objective:** Malar region treatment is a cornerstone in the process of facial feminization in transgender patients. The use of malar implants, lipofilling, and Bichat bulla reshaping or removal are the main therapeutic options; ancillary techniques such as injectable fillers can sometimes be associated. The authors aimed to describe the indications, surgical techniques, outcomes, and complications related to the single procedures.

**Methods:** In total, 48 patients who underwent feminization of the middle third of the face at the "Policlinico P. Giaccone" (Palermo) and the "Hopital Henri Mondor" (Paris) in the last 5 years were, retrospectively, evaluated. Postoperative photographs of the patients were evaluated by two experienced surgeons in facial feminization surgery for the evaluation of the naturalness, symmetry, and feminization of the male characteristics of the face. Patients' subjective satisfaction was assessed using a questionnaire.

**Description and Results:** Most patients were satisfied with the result obtained (44 of 48; 91%). Two patients with malar implants experienced infection and implant dislocation, requiring the removal of the implants. No complications were recorded in patients treated with lipofilling and remodeling of the Bichat bulla.

**Conclusions:** Patient satisfaction and surgeons' clinical examination confirmed that treatment of the malar region is useful in the feminization of the face. Malar region remodeling techniques are customized in relation to the preoperative clinical and radiological evaluation of the patient. Infections, malpositioning/asymmetries, and dislocations are more frequent with the use of malar implants.

#### 2.12.4. Surgical Approach to Feminization of Gaze in Transgender Patients

Edoardo Coiante

**Objectives:** The primary objective of this study is to assess the effectiveness of canthopexy in modifying the canthal tilt and contributing to the feminization of gaze in transgender patients.

**Materials and Methods:** Fifteen transgender patients underwent canthopexy surgery at Henri Mondor Hospital in Paris between March 2021 and April 2022. The surgical procedure involved canthopexy with the realization of the lateral canthal ligament and tendon, anchoring the lateral portion of the lower tarsus to the periosteum of the lateral orbital rim using non-absorbable sutures. Results were evaluated at 6 months post-intervention, measuring the degree of canthal tilt variation before and after the procedure.

**Results:** The 6-month results confirmed the effectiveness of canthopexy, indicating a canthal tilt variation of at least 1 mm. The average duration of the surgical procedure was approximately 1 h. Overcorrection was deemed necessary to achieve a satisfactory outcome. Temporary complications, such as asymmetries that spontaneously resolved within 3–6 months, were observed in two patients. Chemosis or conjunctival irritation occurred in seven patients within 24/48 h post-intervention and self-resolved within two weeks. In three patients, the canthal tilt variation was = 0. No major complications were reported.

**Conclusions:** Canthopexy with dissection of the lateral canthal ligament and tendon reaffirms itself as an effective surgical approach for the feminization of gaze in transgender patients. Long-term results confirm a substantial and lasting variation in canthal tilt, without major complications. This study makes a significant contribution to the understanding of facial feminization techniques, proposing canthopexy as a systematic integrative procedure in facial feminization surgery.

#### 2.12.5. Long-Term Follow-Up of Breast Augmentation in Male-to-Female Transsexuals

Richard Fakin

**Introduction:** Breast augmentation in male-to-female (MTF) transsexuals needs special consideration due to challenging anatomical differences in the male thorax. We present our long-term experience in MTF breast augmentation as part of the sexual reassignment surgery.

**Patients and Methods:** MTF transsexuals who underwent breast augmentation in the last 22 years were reviewed for primary surgery, breast implant size, type of incision, implant site, and implant shape and revisions.

**Results:** In total, 138 patients were included, with a mean age of  $37.8 \pm 11.6$  years. The mean follow-up was  $7.4 \pm 6.6$  years. In 121 patients (89.0%), the submammary incision was chosen. The subpectoral implantation was carried out in 80 patients (58.9%), and the epieptectoral technique was carried out in 56 patients (41.1%). The mean primary implant size was  $324.0 \pm 105.6$  cc. Round breast implants were used more frequently compared to anatomical implants (83 patients, 61.0%, vs. 53 patients, 39.0%). A request for larger implants was the most common indication for revision in 13 patients (9.4%) after a mean time interval between the operations of  $14.9 \pm 17.9$  months. The new mean implant size of  $337.2 \pm 108.8$  cc showed a mean increase of  $106 \pm 45.9$  cc. The continuous increase in implant size over time was associated with a simultaneous drop in revision rates.

Conclusions: Larger, round, low projection breast implants in the epieptoral plane might reduce the request for larger implants in early follow-up as the distance between both breasts and the wide male thorax can be reduced to 1–1.5 cm, and a satisfying décolleté is achieved.

#### 2.12.6. Patient Man: From The Decision of the Shapes to the Kindness of the Lines Erminio Mastroluca

This area has been neglected by pharmaceutical companies for years as if beauty were the exclusive prerogative of women. However, advertising and the cosmetics market have been taking steps and researching a new business model for years: the male patient.

The aesthetic requests and techniques at our disposal allow us to draw up an identikit of our patients and above all understand where we are going.

From the concept of the masculinization of the face, we move towards the personalization of the face. This allows us to treat gender dysphoria by assisting with plastic surgery and aesthetic medicine. I will analyze a clinical case of sex change where the strength of the two disciplines gave an incredible result.

#### 2.12.7. Medical and Surgical Aesthetics in Gender Dysphoria Alvaro Pacifici

Objective and Methods: A photograph of what is happening more and more in our society, the vision of a body that is not completely classified into its gender is increasingly present. Plastic surgery gives a shape to the body and changes it to adapt the body to its perceived identity. Medical and technological aesthetics perfect that body's perceived identity, an example of this is medical hair removal.

Description and Results: Surgery manages to 'transform' the body, I feel like I belong to another gender, I know it is complicated to achieve it, but I want to be understood and helped. In order to have a peaceful relationship with others, what you need to do soon is to change the appearance of your chest and your name. Subsequently, we come to the complex genital surgery. In my career, to date, I have operated on about 50 patients/friends who have undergone genital surgery in gyno-android transsexualism. While almost daily, I have andro-gynoid patients in my clinic who undergo medical hair removal procedures.

Conclusions: It is fundamental to understand what moves a person who experiences this profound self-search.

### 2.13. *Nightmare Complications*

#### 2.13.1. Aesthetic Breast Augmentation Mammoplasty/Mastopexy Followed by Post Surgical Pyoderma Gangrenosum (-->SESSIONE Complicanze da incubo: Case Report) Lorenz Larcher

Abstract: Introduction: Pyoderma gangrenosum (PG) is a rare cutaneous autoimmune mediated ulcerative skin process that is often mediated by trauma or surgical wounds. In the literature, there are several reports of post-surgical pyoderma gangrenosum (PSPG) of the breast. The authors of this article experienced an impressive case of PG after an aesthetic breast augmentation mastopexy. PG as a complication especially in aesthetic breast surgery is severe, as these procedures are elective.

Materials and Methods: We performed a systematic review of the literature and focused on postsurgical pyoderma gangrenosum after aesthetic breast surgery (augmentation mammoplasty/mastopexy). The online databases PubMed, Medline, and Cochrane were used and, additionally, a Google search was conducted.

Results: We could identify eight cases (seven articles) of PG after aesthetic breast surgery reported in the literature. Four cases had augmentation mammoplasty, two cases had mastopexy, and two cases had augmentation mammoplasty and mastopexy (augmentation mastopexy). Our patient reported in this paper also had augmentation mastopexy and is included in the data evaluation. All cases showed the typical areola sparing. Eight patients suffered from local disease at the site of the surgical wounds, and one patient had

disseminated disease. Leukocytosis was present in five cases (out of nine). Eight patients received corticosteroid treatment, and one patient refused. The duration of corticosteroid treatment was continued on average for 41 days (range 21 to 60 days). Complete healing of PG was observed on average after 5 months (range 1.5 months to 1 year).

**Discussion and Conclusion:** Postsurgical pyoderma gangrenosum of the breast after aesthetic breast surgery is rare, but the surgeon should consider it, especially if skin disease develops postsurgically, mimicking wound infection that does not respond to a broad spectrum of antibiotic treatment. Although the literature does not, we would recommend implant removal, because normally bacterial wound infection cannot be ruled out definitely in the early stages of the disease. Additional surgical intervention together with systemic immunosuppressive therapy can only be supportive in the first period after diagnosis.

**Keywords:** pyoderma gangrenosum, breast, postsurgical pyoderma, mastopexy, augmentation mastopexy.

### 2.13.2. When the Scar Becomes a Nightmare Complication

Alvaro Pacifici

**Objective and Methods:** The Hi-Tech Therapy of scars continues to evolve; although, up until now, there is no algorithm that standardizes its use. Furthermore, which equipment to use, when to start treatments, what distance to leave between one treatment and another, and if, how, when, and with which drug to associate laser treatments is absolutely not established. A new algorithm is presented (Algoritmo di Matteo Tretti Clementoni).

**Description and Results:** This approach is based on the clinical characteristics of each scar: thickness and fibrosis, redness and pigmentation, etc. On the basis of this algorithm, it will be evident that (a) different technologies can and must be combined and associated with each other, (b) treatments must be started as soon as possible after the trauma, (c) laser treatments must be combined with the use of medications, and (d) technologies are able to stimulate the regeneration of scars such as jet volumetric remodeling.

### 2.13.3. Managing a Perilous Post-Rhinoplasty Complication: Necrosis of the Tip

Raffaele Castaldo

**Objective:** This case report aims to describe a case of nasal tip necrosis following rhinoplasty and highlight the effectiveness of timely and consistent management of the complication to restore normality.

**Methods:** We present the case of a 35-year-old patient who underwent rhinoplasty. Post-surgery, she developed massive bruising and necrosis at the nasal tip. The complication was identified upon removal of the dressings one week after the surgery.

**Descriptions and Results:** To manage the complication, we embarked on a rigorous bi-weekly treatment program over a six-month period. The patient received injections of PRP, hyaluronic acid (TEOSYAL TEOXANE RHA3), and calcium hydroxylapatite (Radiesse) diluted in a saline solution. The preparation of PRP involved centrifugation of the blood sample at 3000 rpm for 3 min. The consistency and frequency of treatments played a crucial role in the patient's recovery, allowing her to gradually return to a state of normality.

**Conclusions:** This case highlights the importance of careful and consistent complication management in plastic surgery. The promptness and regularity of post-complication treatments were key in facilitating the patient's recovery. This case underscores how adequate management of complications can effectively mitigate risks and aid in restoring the patient's health and aesthetic appearance.

### 2.13.4. Complications in Cosmetic Breast Surgery: Not Only Technical but Also Ethical Problems—Case Report

Yuri Macrino

**Introduction:** Cosmetic breast surgery represents the majority of the operating room commitment of an aesthetic plastic surgeon worldwide with hundreds of thousands of cases operated every year. The aim of this work is to present some major complications

combined with critical ethical decisions from the author's personal case history, bringing their treatment and solution into question.

**Materials and Methods:** 3 cases of complications that occurred which required new hospitalizations with repeated operations to be resolved are shown.

**Results:** All the reoperated patients achieved an overall satisfactory final result after the revision and despite the complications, even the most serious ones. The relationship of trust with the patients who have to return to the operating room and the operator's determination to address the problem promptly and without delay proved to be fundamental.

**Conclusions:** The treatment of complications must be immediate and decisive to ensure a good outcome within a reasonable time. The discussion will also focus on the ethical implications determined by one of the cases in particular.

#### 2.14. *Tissue Tightening and High Tech in Cosmetic Surgery: Face Session*

##### 2.14.1. The First Pocket High Power Medical Laser: 1550 nm and 1927 nm Simultaneous Eugenio Gandolfi

**Introduction:** The authors present a new laser that we can define as revolutionary in the medical technology market, such as the iPhone was for desktop computers and laptops.

**Objective:** The use of laser technologies in improving the quality of the skin and in the treatment of scars, stretch marks, and hyperpigmentation have been used for more than 20 years. The problem of the low diffusion of these methods among the medical profession lies in the high purchase costs, logistics, management, and learning difficulties. The laser technology proposed today, while guaranteeing results comparable to much more expensive and bulky technologies, offers the great advantage of being even pocket-sized and less expensive.

**Methods:** The authors present the use of an innovative laser with two wavelengths that can also be used simultaneously, 1550 and 1927 nanometers, which differs from the equipment already on the market due to its pocket size of  $198 \times 70 \times 52$  mm, weighing 330 g, equipped with a rechargeable battery connected via cable dimensions of  $125 \times 86 \times 34$  with a weight of 350 gr. The laser is equipped with a touchscreen display for adjustment; the scanning surface of the laser is adjustable from 2 to 14 mm, and the treatment speed reaches 2 cm/second and can be adjusted by the operator thanks to the motion sensor equipped with a warning light if the treatment speed is too fast. The laser belongs to the diode laser category and emits two wavelengths that can also be used simultaneously: 1550 nm with power up to 70 mj and 1927 with power up to 15 mj. The laser spot is fixed at 150 microns and the distance between spots is adjustable from 0.5/1.0/1.5/2.0 for both wavelengths.

**Descriptions and Results:** The authors present the indications, limitations, treatment methods, and clinical results obtained using this technology in the last 12 months of scars and melasma. The indications for the use of this laser are as follows: skin resurfacing for superficial and deep wrinkles, treatment of post-traumatic, and acne.

**Conclusions:** The authors recommend the use of this laser technology; the diffusion of which will allow many doctors of various specialties who treat skin blemishes to access therapies for their patients, which up to now were closed to them due to high purchase and management costs.

##### 2.14.2. Triple Layer Rejuvenation of the Face: Combination of Plasma RF, Microneedle RF, and Subcutaneous RF

Carlo Giuseppe Bonuccelli

**Objectives:** Skin laxity, wrinkles, and skin roughness are the main characteristics of aging skin. Multiple physical therapies have been used for the rejuvenation of skin; the optimal one, with minimal pain and downtime, will trigger immediate collagen contraction in addition to long-term collagen remodeling in the dermis to reduce wrinkles and skin laxity.

**Methods:** Several patients, male and female, of variable age received a treatment with thermoregulated subcutaneous radiofrequency immediately followed by a session of plasma radiofrequency ablation or microneedle radiofrequency in the same area. Thermoregulated subdermal RF guarantees precise and controlled subdermal skin and connective tissue tightening through a percutaneous treatment probe. The thermal energy produced by the percutaneous probe causes denaturation and contraction of collagen with subsequent *de novo* regeneration of collagen and tissue remodeling over weeks to months. Also, lipolysis may occur when specific temperatures are achieved. The procedures were conducted without anesthesia. The same areas were treated with plasma radiofrequency ablation or with microneedle radiofrequency. The plasma radiofrequency ablation device produces a sublimation of the superficial layer of the skin, which results in an immediate contraction of the tissue followed by an increase in the thickness of the band of collagen at the dermo-epidermal junction and a consistent increase of dermal collagen. The microneedle radiofrequency allows control penetration depth and delivery to specified energy, which ensures efficacy in the treatment of mild-to-moderate rhytids, skin laxity, and subdermal adipose remodeling. Both procedures are conducted with topical anesthesia. Two blinded reviewers assessed photographs taken at baseline and 3 months post-combination treatment. Patients were observed for up to 1 year after the combination of the treatments.

**Results:** The included patients were both female and male. Several patients had also undergone liposuction simultaneously with the thermoregulated endodermal radiofrequency. Two blinded reviewers correctly categorized photographs as either being “baseline” or “post-procedure” 100% of the time. On the GAIS scale, a marked improvement was found in 80% of cases.

**Conclusions:** Thermoregulated subdermal RF combined with plasma radiofrequency ablation or microneedle radio frequency is a new combination procedure used for nonsurgical treatment of the aging face. Long-term outcomes demonstrate the safety and efficacy of alone and combined treatments. Complications are rare but possible.

#### 2.14.3. The Simplest and Natural Hi-Tech Facial Tightening (HiFu)

Alvaro Pacifici

**Objective and Methods:** Among the new techniques, HiFu (high-intensity focused ultrasound) certainly allows treatments that were unthinkable until a few years ago. HiFu (high-intensity focused ultrasound) technology is an ultrasound technology that, as the name suggests, is emitted at a high intensity and in a well-focused point.

The friction of the ultrasound concentrated in a single point generates heat, which is able to penetrate deeply into the skin and tissues, resulting in various interesting effects. HiFu does not damage the skin and the subcutaneous layer but creates a zone of thermal denaturation in the deep dermis reaching the ideal temperature of 65 °C with consequent contraction (tightening) of the SMAS (Superficial Muscular Aponeurotic System). The HiFu technique is the transfer and concentration of mechanical energy (vibrations) from the outside to the inside of the human body, through the skin and tissues placed between the transducer and the target to be treated. Ultrasound, therefore, stimulates the natural production process of collagen and elastin fibers. This process is extremely important as collagen is the main protein that makes up some tissues in our body, including the skin. The effect obtained is that of a lifting and firming of the face, neck, and décolleté in a completely non-invasive way and above all without any post-treatment social impact. In fact, high-intensity micro-focused ultrasounds do not involve the most superficial layers of the skin but reach and act on different depths, from the deepest layer of the skin to the subcutaneous tissue, until reaching the muscle band, where the laxity originates. The main advantage of concentrated and focused ultrasound is that it is possible to obtain results that are sometimes almost comparable to surgical ones without resorting to the scalpel.

The HiFu treatment is non-invasive, does not leave scars, and does not require recovery or convalescence times: the final results can be obtained in a few sessions, and the patient is not required to undergo any particular observation or hospitalization, being able to easily continue normal daily activities, even sports.

**Description and Results:** The main feature of this technology is the possibility of acting on different depths in the same session, thus intervening on possible blemishes present in particular on both the face and the body:

With a depth of 1.5 mm epidermal and superficial dermis, treatments such as the smoothing of wrinkles and crow's feet; with a depth of 3.0 mm, treatments of the deep dermis, up to the fatty tissue, with the stimulation of new collagen to firm and smooth the skin; with a depth of 4.5 mm, treatments up to the SMAS (Superficial Muscular Aponeurotic System) area, for direct action on the facial muscles. Compared to other techniques, HiFu ultrasound can reach much deeper into the tissues.

To give you an idea, the laser can only propagate energy up to just below the epidermis, and radio frequency can reach the adipose layer just below the dermis, while ultrasound reaches up to the SMAS layer, i.e., just above the muscle fascia.

This allows the HiFu to operate at a depth almost comparable to the action of a scalpel, with the advantage, however, of not being invasive and not affecting the superficial layer of the skin in the slightest.

The SMAS fascia is of particular importance in aesthetic medicine: it is basically the area on which all the skin rests and is, therefore, responsible for its general tension.

It goes without saying that reaching this range without affecting it, thanks only to ultrasound, is an exceptional result that was totally unthinkable until a few years ago. Ultrasound treatment cannot guarantee definitive results. The benefits of collagen destruction and new production run out after a certain period, restoring the starting situation, so it is advisable to do boosters over time and plan maintenance therapy.

Compared to other treatments, the facelift performed with HiFu consolidates within 30–45 days of treatment and proves to be more long-lasting, approximately 6–12 months after the last session of the scheduled cycle (on average 4 for the face and 6 for the body), with less need for touch-ups and, above all, maintenance over a longer period of time. Excellent results that last longer over time are obtained with the synergy of other medical technologies such as electroporation and medical radiofrequency.

**Conclusions:** HiFu, like any other ultrasound treatment, is very safe. It has no side effects worthy of note, apart from a physiological redness of the treated areas, a slight swelling, and, sometimes, small edemas caused by the bursting of small capillary vessels. All small complications resolve spontaneously within a few days and do not preclude social life, normal work, or physical activity. The technology has also been recognized and validated by the American FDA, a guarantee of both effectiveness and, above all, safety. The in-depth action of ultrasound and, above all, the thermal energy it causes sometimes generates an intense sensation of heat, which, for some patients, can be a little annoying. The HiFu treatment is suitable for all skin phototypes and can be performed at any time of the year.

#### 2.14.4. Face Lifting and High-Tech: Complementary Procedures

Carlo Gasperoni, Valentina Pino

**Introduction and Objective:** In recent years, in the field of facial rejuvenation, among the recurrent topics, one of the most discussed is the return to less invasive techniques. In our experience with neck rejuvenation, we used in secondary cases and in thin patients a technique that preserves the deep planes based on a new plication method, conservative neck rejuvenation (CNR), in order to reduce the rate of morbidity, especially the risk of nerve injuries. In primary cases and in selected cases of heavy faces we used a deep submuscular technique "SMAS-platysma" according to Rees.

This technique is made more effective by the use of the PRESTO instrument, according to Funk, which allows the subplatysmatic dissection to be extended, without detaching the retaining ligaments as instead occurs in the deep plane procedure, which is considered the guardians of the patient's facial identity. However, as we know, facelifts cannot improve the quality of the skin; therefore, in our clinical practice, we have chosen a facial rejuvenation protocol to obtain better aesthetic results.

**Material and Methods:** In our study, the algorithm involves applying the CNR technique, which is safer, to secondary cases and thin patients and a combination of the SMAS-platysma technique according to Rees and the PRESTO technique according to Funk in primary cases with heavy tissues or with thick platysma muscle. Volume repositioning obtained by sliding it back to a proper position, or by fat grafting, is part of the routine of face lifting. Tissue regeneration induced by fat grafting enhances volume and also improves skin texture. Our patients followed a protocol regarding skin care. The skin covering can be damaged by the sun and, therefore, present atrophic skin and wrinkles, or it may just be altered by aging or previous acne. Our protocol involves restoring the skin collagen with glycolic acid-based treatments and then applying fractional radiofrequency. The technology we use in our clinical practice is based on the physical and mechanical synergy of fractional radiofrequency. It works by heating the tissues to reactivate a natural process called neocollagenesis. Collagen fibers weakened by aging are gradually replaced by new ones, thus resulting in deep regeneration of the skin and a natural and long-lasting lifting effect.

**Results:** The face and neck rejuvenation obtained with a facelift (from the inside) and high-tech ancillary procedures (from the outside) leads to excellent results. The face appearance is improved due to the synergy of the lifted tissues, volume repositioning, and skin quality enhancement, which occurred with a protocol that includes fractional radiofrequency. Patients were fully satisfied and long-lasting results appear to have been achieved.

**Conclusions:** We believe that lifting atrophic and wrinkled skin can compromise the final result of a face and neck lift; therefore, combining cosmetic surgery with accessory techniques that include high-tech radiofrequency treatment to improve the skin texture represents the key to achieving excellent results.

#### 2.14.5. High Tech and Skin Tightening of the Face: Combined or Alternative to Surgery?

Alessio Caggiati

**Introduction:** Surgical procedures are commonly advocated for the treatment of eyelid and face skin excess. Several physical procedures (chemical peel, CO2 laser, HiFu, radio frequencies external or internal) may have a tightening effect on skin laxity. **Methods:** The authors evaluate the indication for tightening procedures alone or as an integration into surgical traditional procedures. The association of technology and surgery can lead to a shorter recovery time and a higher satisfaction of the patients. **Conclusion:** Accurate clinical evaluation is the keystone to defining proper indication of isolated tightening procedures or an association (in single or multiple steps) with traditional open surgery.

#### 2.15. *Academy of Aesthetic Surgery—Basic Procedures*

##### 2.15.1. A Hands-On Algorithm for Augmentation Mastopexy Management

Ernesto Maria Buccheri

**Objective:** Mastopexy involves reshaping the breast and commonly raising the nipple. Complications in the individual procedures are relatively low. When combined as an augmentation mastopexy, everything changes.

**Methods:** The author conducted a retrospective review from 2009 to 2022. All selected patients underwent a breast examination to rule out preexisting breast disease, were assessed for degree of ptosis as Regnault ptosis scale, and were photographed before and after the procedure and upon follow-up at 12 months after undergoing augmentation breast mastopexy.

**Results:** Breast ptosis degree was corrected by skin resection patterns such as circum-areolar, inverted teardrop, and modified Wise resection patterns. The microtextured implant was selected according to the patient's wishes and anthropometry preoperative measurements. Subglandular or dual plane augmentation was performed considering the preoperative pinching test.

**Conclusions:** The results of this long-term analysis demonstrate that proper skin removal pattern in mastopexy allows the best conical shape of the breast; moreover, the proper decision-making process to implant choice and surgical plane also contribute to achieving the desired result.

#### 2.15.2. The Inframammary Approach to Primary Breast Augmentation: The Dual Plane Pocket

Adriana Pozzi

This presentation is aimed at young plastic surgeons who want to learn the breast augmentation technique through the inframammary approach, which is described as the dual plane technique by the American surgeon John Tebbetts, who passed away last year. The author of this presentation learned this technique from him, in Dallas, in the early 2000s.

Based on this experience, the inframammary approach is to be considered the standard to which other approaches must be compared.

The first step is to determine the position of the new inframammary fold, which is calculated from the nipple with the tissue under maximum stretch and depends on the width of the implant, which, if possible, must not exceed the breast base.

The inframammary incision, compared to the others, periareolar and transaxillary, allows us easy direct access to the pectoral muscle without having to disturb the mammary gland, and, by performing the dual plane pocket with the hand-switching monopolar forceps, it is possible to carry out an anatomical and bloodless dissection without having to insert a single gauze into the pocket and with gradual and incremental release of the pec major. A 3 min teaching video is included in the presentation.

#### 2.16. *Tissue Tightening and High Tech in Cosmetic Surgery: Body Session*

##### 2.16.1. Combination of Third Generation Ultrasonic Liposuction and Subcutaneous Laser Fiber for Difficult Areas in Body Contouring

Regina Fortunato

**Introduction:** Achieving aesthetically pleasing and long-lasting results in body contouring often involves not only fat reduction but also improving skin tone, especially in difficult body areas. This study aims to evaluate the outcomes of concurrently applying third-generation ultrasonic liposuction and skin tightening using three wavelengths of subcutaneous laser fiber on a sample of 20 patients. The objective is to ascertain whether this combination yields significant improvements in both skin tightness and adipose tissue reduction, providing an integrated solution for enhancing body contour.

**Materials and Methods:** Twenty patients underwent ultrasonic liposuction and skin tightening with three wavelengths of subcutaneous laser fiber in the same procedure in different body areas such as the abdomen, flanks, arms, and thighs. Pre- and postoperative photographs and instrumental assessments were conducted to measure skin tightness and adipose tissue reduction.

**Results:** The results demonstrated a significant improvement in skin tightness coupled with a reduction in adipose tissue in patients undergoing both procedures. Pre- and postoperative images, along with subjective evaluations, confirmed a positive impact on overall aesthetics.

**Conclusions:** The combination of ultrasound liposuction and skin tightening with a subcutaneous laser fiber, which was performed in the same procedure, has shown promising results in terms of improving skin tightness and reducing body fat. These findings suggest the validity of considering this integrated approach as an effective option for body sculpting. Further research may delve into the applicability and duration of the achieved results.

#### 2.16.2. Localised Adiposities Treatment and Glute Region Cellulite Using Laser 1470 and Endolift Technique

Clara Ada Tanteri

This work, which shows the results of a single case treated using optical fiber with laser 1470, seems to give new chances in the treatment of the most advanced stages of cellulite.

The patient had previously been treated with other several procedures that did not achieve the desired results.

During the treatment of localized adiposities, we were able to see improvements in the main areas affected by cellulite. Since there had been these improvements, we performed a second session aimed exclusively at treating each single small area with optical fiber after infiltrating the anesthesia.

The results highlighted in the pictures demonstrate the improvements in the treated areas.

#### 2.16.3. High-Tech Gluteal Remodeling: How to Combine Technology and Safety

Mariagrazia Moio

**Objectives:** Gluteal remodeling is becoming more and more popular in Europe. However, the high increment in patients' requests can not hide the historically high percentage of complications of this controversial procedure. Approaching gluteal enhancement imposes on the surgeon a complete knowledge of anatomy, technique, and technology in order to obtain the best possible results and to ensure the patient's safety. We present our approach of combining different technologies to obtain the best remodeling of both the gluteus and the surrounding areas.

**Methods:** Between 2020 and 2023, we treated 47 patients for gluteal remodeling and volume enhancement with fat transfer with a combination of different technologies in order to enhance the results. Patient safety was also a priority considering the high percentage of complications described in the literature. No major complication was recorded, and patient satisfaction was up to 98%.

**Discussion:** Gluteal fat graft has been related in the past to many complications including fatal episodes, thus becoming the procedure with the highest risk in aesthetic surgery. The advent of technology has helped to make the procedure more effective and safe. A combination of different technologies with different objectives can improve every single phase of the surgery, reducing the risks for the patients. A high-tech approach to this surgery is the key to the future of gluteal remodeling.

**Conclusions:** Combining different technologies may improve every step of gluteal remodeling starting from fat harvesting to its purification and re-injection. The complication rate can be dramatically reduced with the proper technique, making this procedure safe again.

#### 2.16.4. Combined Treatment Lesc + Endolift for Localized Fat Reduction Associated with Skin Laxity

Stefano Toschi

**Introduction:** The treatment of the fatty tissue excess in the trunk and the limbs has been triggered by ultrasound subcutaneous lipoemulsion (LESC) in the last few years. This technique is based on apoptotic lipolysis followed by aspiration with small-diameter probes as an in-office procedure in most cases.

Endolift is an assisted laser treatment in interstitial mode performed by a very thin optical microfiber (200 to 400 microns) that improves skin tightening, particularly of the lower third of the face, neck, arms, inner thigh, and periumbilical area.

**Objectives:** We verify whether the combination of the two techniques could significantly improve the shaping of patients who present localized fat excess associated with skin laxity.

**Materials and Methods:** In total, 50 male and female patients (50 to 65 years) with subcutaneous fat excess of the periumbilical area, arms, and inner thigh with skin laxity I to V type (2–10 cm using Visual Analogue Scale—VAS) were split into two groups and submitted to treatment. Those of the first group (25) were treated only with LESG; the second group (25) included the patients who were submitted to both techniques in the same session (LESC before, Endolift at the end of the procedure). Pictures were taken on days 0, 30, 90, and 120.

**Results:** In each group, five patients for every type of laxity were included (I 1.8 to 2 cm, II 2.1–4 cm, III 4.1–6 cm, IV 6.1–8 cm, V 8.1–10 cm). The average laxity of the first group (only LESG) was 6.2 cm; in the latter group (LESC + Endolift), it was 6.1; therefore, they can be considered homogeneous. Patients treated were partitioned for each group: twelve patients for belly, eight for inner thighs, and five for arms. In both groups of patients, an improvement following the VAS Scale was shown. In the first group, average laxity decreased from 6.2 cm to 3.9; in the second one, from 6.1 to 2.2 cm.

**Conclusions:** The use of the cavitational ultrasound contributes on its own to a significant reduction of the laxity, which becomes ever more evident if a laser treatment Endolift is associated. Particularly, the larger average differential for decreased laxity is observed in the periumbilical region than in the inner thigh and arm. This is probably related to the lower influence of gravity or to the stronger muscular structure of the abdominal wall. Furthermore, the differential increases the more the starting values are high, i.e., the more “difficult” the case is. There were no significant differences in the age and physical condition of the patients; however, patients who were too athletic or excessively sedentary were excluded from the study. Finally, the combined treatment LESG + Endolift provides remarkable advantages in determining an increasing tightening, especially of the belly area and of the IV–V laxity type patients without a longer or more complicated post-surgical recovery compared to the LESG only.

#### 2.17. Breast Asymmetries I

##### 2.17.1. Reductive Mastopexy with Prosthesis for the Management of Ptotic Breasts and Asymmetries

Umberto Napoli

**Objective:** Reduction mastopexy with the aid of a prosthesis, commonly known as breast lift, is a surgical procedure that lifts and reshapes sagging breasts. During the surgery, the surgeon removes excess skin and breast tissue to achieve a more youthful, lifted appearance. In some cases, women may choose to also have implants inserted during the surgery to increase breast volume.

**Methods:** The medical records and clinical images of 100 consecutive female patients undergoing evaluation for mastopexy with implants were retrospectively reviewed. Only women between the ages of 35 and 45 were considered. All patients were characterized by moderate bilateral breast trophism and mild asymmetry considering parameters such as shape, volume, position of the inframammary fold, and position of the nipples.

**Description and Results:** All patients underwent manual measurements with a tape measure and caliper and were subsequently re-evaluated with a 3D method. The first result is that the presence of a slight asymmetry involving the shape of the breast, the volume of the breast, the position of the nipples, and the position of the inframammary fold constitutes a complex asymmetry that may be difficult to correct and resolve. The second result is that the correction often requires the simultaneous reduction of breast tissue and the increase in volume through a prosthesis to improve the shape and consistency of the breasts. In all selected cases, I have always performed an upper pedicle mastopexy.

**Conclusions:** Symmetry, size, and shape of the breast are key components in the reduction of mastopexy with a prosthesis that should be adequately studied to achieve a good aesthetic result. Therefore, surgical planning based on a reliable virtual model of the potential surgical outcome could be of considerable value in the decision-making process. Furthermore, the 3D scanning technique is applicable in postoperative monitoring of morphological change over time.

#### 2.17.2. Breast Asymmetry and Ptosis: 3D Analysis and Algorithm of Treatment for Autologous Cosmetic Reconstruction

Giuseppe Cuccia

**Objective:** Breast morphology mainly depends on the relationship between the volume of tissue, the surface area of the skin envelope, and glandular configuration. Correction of a severe grade of ptosis is still an issue to achieve stable results. Moreover, the majority of patients with severe ptosis have different grades of asymmetry. Breast reshaping due to the presence of redundant skin is mandatory to finalize this challenging surgery. We report our experience with an algorithm of treatment for breast ptosis and asymmetry using a 3D simulator system. **Methods:** We analyzed severe breast ptosis patients considering breast reshaping and viewed the features of the breast, the type of surgery performed, the outcomes, and the complications. All patients underwent autologous breast reshaping and reconstruction. A 3D simulator system was used to assess breast changes and follow-up. **Results:** Severe breast ptosis patients underwent breast reshaping in the last 4 years. The average age was 42 years old. The follow-up period ranged from 6 months to 4 years. All patients had a severe grade of ptosis and the technique used was mastopexy with parenchymal remodeling. The algorithm of treatment was mandatory to enhance long-term results. **Conclusions:** Breast reshaping in severe ptosis patients is a very difficult topic in both aesthetic and reconstruction breast surgery aspects. Only a deep analysis of the degree of ptosis, grade of asymmetry, quality of breast tissue, and its volume and shape can achieve satisfying results. Moreover, a clear communication with the patients about the real outcomes and complications is mandatory to avoid unrealistic expectations.

#### 2.17.3. Patient Reported Outcome Measures (PROMs) following Breast Asymmetry Correction: A 10-Year Retrospective Study Using the BREAST-Q and the SCAR-Q

Stefania Tenna

**Background:** A multitude of technical refinements can be found in the literature on the management of breast asymmetry (BA); however, only a few data investigate surgical outcomes and critical features for long-lasting satisfaction from the patient's perspective. The aim of this retrospective study was to evaluate the quality of life and satisfaction after BA correction, using the BREAST-Q and the SCAR-Q in order to measure postoperative patient perception.

**Materials and Methods:** Seventy-two women underwent surgical correction of breast asymmetry ( $n = 138$  breasts) from 2012 to 2022 and were selected to complete BREAST-Q and SCAR-Q surveys. Patients were grouped according to surgical technique into groups 1 (implant-based correction =  $n = 61$  breasts) and 2 (autologous correction =  $n = 77$  breasts), with age, degree of deformity, and degree of asymmetry being homogenous. Surveys were administered via Google Forms after informed consent.

**Results:** Forty-nine patients returned both questionnaires. Given a higher incidence of re-intervention registered in group 1 (42.6% vs. 15.6%), higher satisfaction in psychosocial (73 out of 100 vs. 66.4) and sexual well-being (72.6 out of 100 vs. 53.6) domains was observed in the same group, as well as satisfaction with the outcome (86.7 out of 100 vs. 82.4); the results were statistically significant ( $p < 0.05$ ). The SCAR-Q scores revealed a non-statistically significant difference in all domains between groups. Pairing the results of both questionnaires, patient satisfaction tends to be higher when an inframammary scar is performed.

**Conclusions:** Surgical treatment of breast asymmetry in young women yields good improvements in psychosocial quality of life; however, the impact of volume variation as well as the visibility of some scars can be underestimated. Our results suggest that implants support volume correction better, while scars in the inframammary sulcus are more satisfying in the long term.

## 2.18. Breast Asymmetries II

### 2.18.1. How to Solve the Breast Primary Asymmetry

Egidio Riggio

**Introduction:** Breast asymmetry is quite common but its perception as a problem varies in women's expectations. Asymmetries can be mild to severe. Severe cases are always a challenge.

**Patients and Methods:** The main topics found in the breast concern volume, ptosis, areola size, shape, and inframammary fold. The surgical techniques include mastopexy, reduction, augmentation, and lipofilling. **Results:** In my experience, the results are good in more than 80% of patients, but an optimal symmetry objective is reached in 10% of cases, and one-third of patients would require a secondary minor correction that is realized in a minority of cases. The correction of asymmetry is more challenging when a silicone implantation is used unilaterally.

**Conclusions:** A clear explanation to the patients that the achievement of a fully satisfactory result must pass through a major and a second minor is basic and honest.

### 2.18.2. Analysis and Management of Breast Asymmetries: 3D Assessment for Better Understanding for Our Patients

Valerio Badiali

**Objective:** The demands of our patients who intend to undergo breast augmentation surgery are becoming increasingly specific and attentive to even the smallest details.

The specialist has to offer an increasingly complete and detailed evaluation, but at the same time protect himself from a medical-legal point of view. The objective of this presentation is to provide a counseling scheme that takes advantage of advanced technologies.

**Methods:** With experience in more than 3000 cases, we will present the details of preoperative analysis associated with systems for audio recording of the consultation and economic protection based on extended coverage.

**Description and Results:** In our experience, this pattern has led to a better understanding of the characteristics but also the limits of our operation, which results in a greater willingness of patients to rely on our care and at the same time a reduction in postoperative litigation.

**Conclusions:** In conclusion, we believe that more advanced assessment methods are not, as many believe, a "double-edged sword" but an essential tool even for the professional protection of the specialist.

### 2.18.3. Breast Asymmetry: A Challenge for the Surgeon

Stefano Marianelli

**Objective:** Mammary asymmetry has always been considered a challenge by the plastic surgeon, as it requires the knowledge of many surgical techniques and expertise in order to reduce the necessity of secondary surgery caused by complications, and/or unsatisfactory correction and/or asymmetry relapse, to a minimum. The authors hereby provide their experience related to a vast number of cases of surgical rectification of several types of asymmetry in order to aid younger surgeons in the most suitable choice in their cases.

**Methods:** The authors have divided asymmetries into three classes:

- CAC height asymmetry
- Volume and glandular position asymmetry
- Thoracic asymmetry

The adopted surgical techniques for the different classes of asymmetry differentiate themselves based on the necessity to use a breast implant. Periareolar mastopexy and “T” techniques are taken into account in the event in which the implant plays a determining role in asymmetry rectification.

In certain cases, glandular and cutaneous remodeling have resolved volume asymmetry and glandular dislocation without the use of implants.

The authors hereby show the determining role of the use of the lower dermal flap to obtain more stability from both a glandular and breast implant perspective.

Moreover, the authors show their experience with lipofilling combined with the aforementioned techniques in order to obtain better breast shape and/or higher breast implant coverage.

**Results:** Careful attention to results was given one year after the procedures.

The following parameters were taken into consideration:

- The quality of residual scar tissue
- Breast shape
- Possible asymmetry relapse
- Patient and surgeon’s satisfaction

In the cases of asymmetries classified as “difficult”, a correction and completion procedure of the residual asymmetry was performed one year from the first, as planned and agreed to with the patient during the pre-op phase.

**Conclusions:** Mammary asymmetry entails a degree of technical difficulty, which may vary based on the outset condition. The surgeon must know many mastoplasty techniques in order to face and resolve the various types of asymmetry.

The authors deem it of utmost importance that the patient be well informed during the pre-op phase about the possibility of secondary surgery after one year, especially in those cases of mammary asymmetry that are defined as “difficult”.

### 2.18.4. Surgical Correction of Breast Asymmetry

Paolo Vittorini

Breast asymmetry is a common condition in women, which consists of the difference in shape, size, or position between the two breasts. This difference may be due to congenital, hormonal, traumatic, or pathological factors and may cause psychological, social, or functional distress to patients. Surgical treatment of breast asymmetries aims to create a new balance between the shape, volume, and position of the breasts and to restore the harmony and symmetry of the breasts, taking into account the expectations and wishes of the patients. The surgical techniques used depend on the type and degree of asymmetry and may include breast augmentation, unilateral or bilateral breast reduction, mastopexy, or a combination of these. In this report, the causes, classifications, indications, and methods of treatment of breast asymmetries will be illustrated, with particular reference to the technical aspects and aesthetic and functional results. The plastic surgeon will carefully

assess the degree and type of breast asymmetry and discuss with the patient her goals and expectations regarding correction. Several variables will be taken into consideration, such as the anatomical structure of the patient and anatomical and trophic characteristics of the mammary glands, the size and shape of the implants, the position of the Nac, the site of the prosthetic implant, and the position and extent of the scars where a mastopexy or a reduction will also have to be carried out to balance volume and shape.

Breast asymmetry: causes and types:

Breast asymmetry can be caused by several factors, including pubertal development, pregnancy, breastfeeding, weight loss or gain, and aging. There are several types of breast asymmetry, which include prevalent volume-only asymmetry, asymmetry of shape, volume, and breast profile, and asymmetry of position in the height of the Nac.

In the simplest cases represented by volume asymmetry alone, it will be sufficient to use prostheses of different volumes and/or projections to achieve a valid degree of symmetrization. When we are called upon to deal with complex cases in which the asymmetries do not only concern the volume but also the shape of the breasts, for example, breasts with tuberous attitude, breasts with unilateral hypertrophy and contralateral hypotrophy, breasts with ptosis and morpho-volumetric asymmetry, and breasts with pseudoptosis and asymmetry; we should be the architects of the result by balancing the new shape with volume. We will always try to surgically balance the shape to the volume of the breasts so that they are as symmetrical as possible. The goal is to achieve a natural and proportionate result while ensuring the balance of the shape.

Conclusions: Surgical treatment of breast asymmetries offers an effective solution to achieve a new balance between breast shape, volume, and position. The author presents his own surgical case history, describing the causes and classification of breast asymmetries; sets out the indications and methods of surgical treatment, highlighting the criteria for choosing the most suitable technique based on the clinical case; analyzes the aesthetic and functional results of the surgical treatment; and discusses possible complications. The main goal is to achieve an aesthetically pleasing result, create a new harmonious balance between the breasts, and improve the quality of life and self-esteem of patients.

#### 2.18.5. Facial Feminization Surgery: Surgical Techniques for Bone and Soft Tissue Modeling

Giovanni Zabbia

Objective: Facial Feminization Surgery (FFS) has become an integral part of the transition process for patients with gender dysphoria and is considered a “necessary surgery” by the “WPATH Standard of Care 8th version”. The main objective of FFS is to modify and attenuate the male anatomical characteristics of the face in order to obtain a more feminine and harmonious appearance.

Methods: From September 2017 to today, 45 facial feminization procedures have been performed at the U.O. of Plastic and Reconstructive Surgery of the University of Palermo and as private activity on transgender patients. Almost all patients prefer to undergo FFS first rather than sex reassignment surgery. In all cases, a CT scan with 3D reconstruction was performed preoperatively for more precise planning of the operation, identifying more precisely the male anatomical characteristics to be modified. The average age of the patients was 35 years (range 25–47 years). The mean follow-up time was 16 months (range 4–32 months). The procedures were performed by intervening both on the craniofacial skeletal tissue and on the soft tissues at the same surgical time.

Description and Results: Reduction of the forehead, brow lift, cantoplasty, rhinoplasty, orbital reshaping, change in the chin and mandibular angles, and lipofilling were the most commonly used procedures and were performed, in most cases, at the same surgical time. Facelifts resulted in a high degree of feminization of the face, especially in patients over 40 years old. There were no complications, and no secondary revision was performed. In all patients, we achieved a clear improvement in the aesthetic appearance of the face, making it more compliant with their female gender identity.

**Conclusions:** In this series of cases, patient satisfaction with the results obtained was high and no patient required secondary corrections. Facial feminization procedures can effectively change the masculine characteristics of the face, making patients more feminine. A more feminine face allows these people to feel more at ease in society, in the family, and at work, considerably improving their quality of life and their body image. The ideal surgical timing for FFS surgeries is still under discussion as no international guidelines currently exist.

**Conflicts of Interest:** The author is the Editor-in-Chief of the journal Surgical Techniques Development and Board Member of AICPE Association.

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