



Conference Report

Report on the 9th National Congress AICPE (Associazione Italiana di Chirurgia Plastica Estetica) Held in Sorrento, Italy, 22–24 April 2022

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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 due to the number of participants and as parterre of invited speakers chosen for their renowned scientific value. The 9th meeting is located in Sorrento (Italy) 22–24 April 2022. The scientific program focuses on peri-orbital and eyelid surgery, breast augmentation, breast reduction and pexy, body contouring, fat transfers and treatments with resorbable fillers. The program includes special lectures and round tables on oncoplastic surgery of the breast, how to manage patient and surgeon anxiety, social networks reputation and social information as a service. Here is a report on the abstracts accepted for their innovative messages or state-of-the-art and selected for oral presentations in the miscellaneous fields of aesthetic plastic surgery debated during the sections of the congress.

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Citation: Riggio, E. Report on the 9th National Congress AICPE

(Associazione Italiana di Chirurgia Plastica Estetica) Held in Sorrento, Italy, 22–24 April 2022. *Surg. Tech. Dev.* **2022**, *11*, 4–46. <https://doi.org/10.3390/std11010003>

Academic Editor: Alessio Caggiati

Received: 20 April 2022

Accepted: 20 April 2022

Published: 22 April 2022

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2. Summary of the Scientific Presentations

2.1. Eyes and Surroundings. Medical and Surgical Techniques for the Upper Half of the Face

2.1.1. Temporal Lifting: A Powerful and Effective Technique for the Rejuvenation of the Upper Third of the Face

Michele Pascali, Italy

OBJECTIVE: Brow-lifting surgical procedure is an essential element in periorbital rejuvenation. Indeed, the brow has both static and dynamic qualities that give it an essential role in determining facial aesthetics and expression. Indeed, the brow ptosis often represents the detail of a more extensive process of periorbital aging that involves both the temporal region and the eyelids. The temporal lifting proposed by the author foresees a hairline incision, an extended subcutaneous dissection and an orbicularis oculi muscle imbrication. This approach represents a very effective technique which involves not only the lateral portion of the eyebrow, but also the entire temporal area, the para-canthal area and the upper portion of the malar area.

METHODS: Between January 2018 and January 2019, a cohort of 78 patients who were candidates for the brow lifting procedure was prospectively enrolled in this study. All patients were treated under local anesthesia with sedation. After a hairline incision in the temporal area, a subcutaneous dissection has been performed up to the lateral orbital rim; a window of the orbicularis muscle has been opened and fixated to the superficial temporal fascia. Subjective and objective methods were used to evaluate the results. The subjective method included a questionnaire administered to the patients; the objective method consisted of a measurement of the amount of the brow elevation achieved (a distance between a horizontal line drawn through the medial canthus and the eyebrow

superior margin was measured on each side of the before-and-after images). The average follow-up period was 12 months.

DESCRIPTION and RESULTS: Using this technique, a perfectly symmetric lateral eyebrow elevation and a temporal laxity correction were obtained in all patients. Furthermore, an effective elevation of the malar soft tissues was obtained. No major complication was reported except for one case of temporal hematoma that occurred 24 h after surgery in a male patient who needed surgical treatment. Three patients complained about a visible scar which has been treated with laser therapy.

CONCLUSIONS: This temporal lifting, in the authors hands, represents a powerful and effective technique for the lifting of both the temporal region and the brow that also allows a good aesthetic improvement in the upper and lower eyelids in those cases of droopy and heavy eyes.

2.1.2. The Eyelid Lift: Surgical Approach to Address the Eyelid–Cheek Junction Francesco P Bernardini, Italy

INTRODUCTION: Lower blepharoplasty is a commonly performed aesthetic procedure with inherent risks. We describe a lower blepharoplasty surgical technique that mimics the effect of digital elevation of the eyelid skin, hence the ‘eyelid lift’, which allows simultaneous correction of lower eyelid volume, skin and laxity changes without adjunctive supportive procedures.

METHODS: The surgical technique consisted of a dual-plane, three-step approach, which involved transconjunctival release of the orbicularis ligaments and orbital fat redistribution, followed by a ‘mini pinch’ excision of lower eyelid skin and by orbicularis muscle suspension—the ‘Eyelid Lift’ component.

RESULTS: Retrospective analysis of a large personal surgical series of more than 200 patients that underwent lower blepharoplasty using the eyelid lift technique showed high subjective satisfaction, high objective evaluation score and very low complication rate.

CONCLUSIONS: The ‘Eyelid Lift’ technique, combining three surgical steps with two different approaches, represents a significant paradigm shift to traditional blepharoplasty as it addresses all the factors contributing to lower eyelid aging without needing supportive procedures for the lateral canthus or midface. The orbicularis suspension suture that characterizes the ‘Eyelid Lift’ is the simplest orbicularis suspension maneuver reported so far, yet it provides an effective factor in providing objective improvement in lower eyelid appearance, effective in addressing mild and minimal lower lid skin excess and laxity to malar festoons.

2.1.3. Midface Medical Lifting versus Midface Surgical Lifting Antonietta Cimino, Italy

INTRODUCTION: The request for non-invasive facial beauty treatments by an increasing number of patients has led the author to review her 15 years of experience in cosmetic facial surgery. In particular, her attention has been focused both on middle and upper third of the face: lifting of these areas with or without blepharoplasty, with or without lipofilling. In the last 8 years, according to the surgical rationale, the author has performed aesthetic medicine treatments with hyaluronic-acid-based fillers for cheekbones, nasolabial folds, periorbital region (lower and upper eyelid) and botulinum toxin for third lateral eyebrow. All the areas affected by the aging process have been treated in a single session in order to obtain a general and visible rejuvenation of the face.

MATERIALS and METHODS: Over 300 patients, from 30 to 60 years old (average age 45 y.o), without any surgical indication (not important palpebral bags or blepharocalase, nor excess muscle-cutaneous laxity) have undergone a midface lifting treatment with hyaluronic acid. In a single session, patients have been treated with 4–8 cc of hyaluronic acid with different cross linking and chosen on the basis of the area to be treated:

- HA 15 mg/mL, with low hygroscopy and highest adaptability to tissue. It contains a mix of cross-linked HA, free HA and phosphate buffer integrated with 8 amino acids,

- 3 antioxidants, minerals, and B6 vitamin. It has been used for the treatment of the periorbital (on the periosteum) and temporal areas (into the subcutaneous tissue).
- HA 23 mg/mL, 2 dynamic fillers, with different cross linking (BDDE from 3% to 4%), high strength (high resistance to compression) and good stretch (good resistance to stretching).
 - HA 25 mg/mL (BDDE 10%).

They have been injected for modulated volume restoration of facial dynamic regions such as cheeks and cheekbones.

- Botulinum toxin.

The injections were carried out with 25G cannula and 27G/25G needle, without anesthesia.

Most of the patients achieved the desired result in a single session with a follow-up after 15 days for an eventual touch-up.

RESULTS: Midface medical lifting has an average duration of 10–12 months in the zygomatic region while a few years (according to the increase in the aging process) in the eyelid and temporal regions. In all these years, there have been no significant adverse events (only slight edema and sometimes bruising immediately after the treatment).

CONCLUSIONS: The critical analysis of the photo documentation, duration and extent of the results, low cost of the treatments, absence of adverse events and especially, availability of specific and dynamic hyaluronic acid fillers, have led the author to consider medical midface lifting a valid alternative to the surgical one for all the selected cases.

2.1.4. The Relevance of Volume Preservation in Periorbital Rejuvenation

Fabian Cortinas, Argentina

Throughout time and from many studies, we have learned that the aging process includes facial loss of volume including the middle third; therefore, volume preservation at the time of rejuvenation processes is one of the most important maneuvers. This lecture is about volume analysis and preservation during periorbital rejuvenation.

2.1.5. Secondary Upper Lid Blepharoplasty for Correction of Lateral Hooding

Giacomo Bellinvia, Italy

BACKGROUND: Upper lid blepharoplasty is one of the most requested aesthetic operations. The dissatisfaction of patients after upper lid blepharoplasty is often due to the permanence of “heaviness” in the lateral area of the upper lid (lateral hooding) which the primary operation did not correct in a satisfactory manner or which, with the passing of time, has come back.

OBJECTIVE: The authors describe their experience with a type of cutaneous removal of the upper lid which allows an efficient correction of lateral hooding, which is either residual or has become noticeable with time.

METHODS: The authors retrospectively reviewed the records of 152 consecutive patients who underwent secondary upper blepharoplasty in a period of five years with the author’s technique.

RESULTS: Clinical evaluation and examination of pre- and post-operative photographs show a good correction of the lateral hooding in almost all patients with an average high patient satisfaction. In the case series analyzed, there were no complications and no need for further correction.

CONCLUSIONS: This series of cases shows a technique of secondary upper lid blepharoplasty which allows a correction of lateral hooding, often not corrected by the classical incisions, in a simple and predictable manner.

2.1.6. The Upper Eyelid, between Resection and Filling Approach: Why, When and How Francesco Romeo, Italy

OBJECTIVE: The rejuvenation of the upper eyelid is very important to achieving a youthful appearance. The author clarifies the different approaches in a sunken eye and hollow and full eyes with and without dermatochalasis.

METHODS: Through his presentation, the author gives examples of each type and makes it clear to understand the state-of-the-art rejuvenation of the upper eyelid using different approaches with the HA filler or micronano fat graft in a sunken eye, hollow and full eyes without dermatochalasis, skin resection in a full eye with dermatochalasis and combined approaches in a hollow eye with dermatochalasis. The author has treated many patients by all the techniques, and they have been divided into three groups with different anatomical situations to be resolved

DESCRIPTIONS and RESULTS: The author has published about this topic for the first time in an original article: Upper Eyelid Filling With or Without Surgical Treatment in Aesthetic Plastic Surgery 2016 Apr 40(2):223–235; and a second time Upper Eyelid Filling Approach [U.E.F.A.] Technique: State of the Art after 500 Consecutive Patients in Aesthetic Plastic Surgery 2019 Jun; 43(3):663–672.

CONCLUSIONS: The knowledge of the mechanisms of aging of the upper eyelid allows to treat the upper eyelid correctly in primary and secondary conditions.

2.1.7. Complete Periorbitoplasty in One Scar Pier Luigi Canta, Italy

OBJECTIVE: Surgical procedures on the face are increasingly taking on the characteristics of minimally invasive, by virtue of the sharp decline in patients willing to undergo operations that require a demanding procedure or long-lasting post-operative period. Nonetheless, new techniques and materials are too often proposed that sacrifice concrete results on the basis of mini-invasiveness. A lifting of the eyebrow and the entire upper third of the face is presented through 2 mm accesses with the only scarring stigmata of the upper blepharoplasty, if associated with a complete periorbitoplasty.

METHODS: From September 2018 to date, 12 patients have undergone eyebrow lifting and the entire frontal area without apparent scars. The surgical procedure did not include the aid of video endoscopy or the use of wires or expensive traction devices which at best guarantee a short-lasting effect and unnatural results. The surgery was carried out by freeing the entire frontal region and relocating it to a higher position using fixation devices held in place for about 48 h; a pleasant “botulinum-like” effect accompanies the result for several months; a complete blepharoplasty can also be associated with the only scar of the upper eyelid.

DESCRIPTIONS and RESULTS: The surgery was carried out by freeing the entire frontal region and relocating it to a higher position using fixation devices held in place for about 48 h; a pleasant “botulinum-like” effect accompanies the result for several months; a complete blepharoplasty can also be associated with the only scar of the upper eyelid. All the patients showed great satisfaction: the post-surgery period was necessary for all of 2 days, 7–10 days were necessary for complete recovery.

CONCLUSIONS: This procedure, practiced under local anesthesia, promises lasting results, previously achievable only through an endoscopic frontal lifting.

2.1.8. My 20 Years’ Experience of Mastopexy with a Submuscular Autoprosthesis Pier Luigi Canta, Italy

OBJECTIVE: The breast is one the most important attributes of femininity. A large breast, although desired by many women, is not always in harmony or in proportion with the rest of the body.

METHODS: This technique was developed to prevent the action of gravity by using a part of the pectoralis major muscle placed at the lower pole of the breast, pulling it upwards. The technique involves the preparation of an autoprosthesis, as described by L. Ribeiro,

with the difference that the detachment of the flap passed under a bipedunculate band obtained in the pectoral muscle context, with superior anchoring of the areolar flap.

DESCRIPTIONS and RESULTS: The use of the submuscular flap is a very safe method with a low complication rate, suitable for reconstructing not too large and ptotic breasts. The technique prevents the breast ptosis and maintains the results obtained for a long time compared with other techniques.

CONCLUSIONS: The surgery is not painful, normally well tolerated by the patient and it has a rapid recovery.

2.1.9. Fat Grafting and Lower Blepharoplasty: Personal Experience with the Supraperiosteal Free Fat Graft Method

Gianmario Prinzivalli, Italy

OBJECTIVE: Lower eyelid rejuvenation has recently developed by combining inferior blefaroplasty and various fat grafting procedures. Many fat grafting techniques can be considered to address volume loss, optimizing the final lower periorbital results. The aim of this communication is validating the subperiosteal free fat graft technique as safe and effective in long-term outcomes.

METHODS: A review of the last 25 cases who underwent free fat transplantation to lower periorbital combined with excisional blepharoplasty is presented; pre-operative and post-operative with >3 years follow up photographs will be examined to compare aesthetic outcomes and morbidity.

DESCRIPTIONS and RESULTS: Starting from the lower eyelid anatomical analysis, two different techniques of fat grafting are considered: grafting with cannula vs. single fat grafting pieces. Complications such as prolonged ecchymosis, swelling, bruising, and skin irregularities are reported and the stability of the aesthetic result is finally evaluated.

CONCLUSIONS: There are three lower eyelid major aging factors: skin excess, protruding retroseptal fat pad and lower periorbital depression. The free supraperiosteal fat graft is effective and provides long-term predictable outcomes in lower periorbital rejuvenation through a combination of traditional excision blepharoplasty and fat volumetric supplementation that maintains the smooth transition of the lower eyelid to the cheek.

2.1.10. Frontal-Orbital Contouring and Rhinoplasty for Transgender Females: The Importance of Fronto-Nasal Angle in Facial Feminization Surgery

Zabbia Giovanni, Cammarata Emanuele, Maniaci Giuseppe, Speciale Antonino, Rosatti Fernando, Tondini Greta, Maltese Martina and Cordova Adriana, Italy

OBJECTIVE: Facial feminization surgery (FFS) is a term used to describe the surgical procedures that aim to give a more feminine appearance to a masculine face. This kind of surgery is usually performed for transwomen patients and encompasses a combination of both bony and soft tissue procedures designed to smoothen strong masculine facial features and achieve a permanent feminization of the face; thus, attenuating visual perception of gender incongruence. FFS has gained more attention in the past decades and today is often requested as the first step in the transition process. This underlines the importance of this kind of surgery in the social, working and affective reintegration of the transgender patient. A broad spectrum of feminization procedures on the facial skeleton is currently available in plastic surgeons' portfolio, including those that address the fronto-orbital and nasal region. In fact, forehead contouring and rhinoplasty can lead to dramatic changes in overall facial expression. The purpose of this study is to evaluate the effects of frontal, periorbital and nasal bone remodeling on cosmetic changes in FFS and to assess postoperative results and patient satisfaction.

METHODS: The authors present their experience in bony remodeling for facial feminization through a retrospective review of 15 consecutive transgender patients who underwent bone contouring procedures of the upper face (reduction in frontal bossing, supraorbital ridge and orbital rim contouring and feminization rhinoplasty) between March 2016 and December 2019. Demographic and clinical characteristics of patients, as well as postoperative follow-up and patient-reported satisfaction were recorded. Patient photographs

were taken preoperatively, 3 and 12 months after surgery. Osteotomies were performed by custom 3D-printed cutting guides, planned on preoperative 3D CT scans. Fronto-nasal angle was measured pre- and postoperatively in all patients.

DESCRIPTIONS and RESULTS: The mean age was 34 years (range 25–45 years). Postoperative follow-up ranged from 4 to 30 months (mean 15 months). All operated patients underwent simultaneous fronto-orbital contouring, rhinoplasty and other bone and soft tissue ancillary procedures. However, the description of these procedures goes beyond the purpose of this paper and will not be discussed below. Details about the used surgical techniques, as well as 3D CT scans, custom 3D-printed cutting guides and postoperative results, are thoroughly described by the authors. No major complications occurred. None of the patients had complaints about the aesthetic result of the procedures or asked for secondary revisions.

CONCLUSIONS: In all operated patients, fronto-orbital bone contouring and rhinoplasty proved to be safe and effective techniques that allowed to obtain a satisfactory modification of skeletal facial features to a more feminine appearance, a high patient-reported satisfaction and a low complication rate. The choice of an appropriate fronto-nasal angle is crucial to achieve female proportional harmony. Therefore, in our opinion, feminization of the bony framework should be considered as an essential component of the changing process of any patient undergoing MtoF sex-reassignment surgery, in order to improve quality of life and promote social reintegration.

2.1.11. Holistic Approach to Periorbital Rejuvenation

Alessio Caggiati and Stefania Tenna, Italy

OBJECTIVE: Eyelid surgery is commonly advocated as the most powerful surgical tool for periorbital rejuvenation. In this paper, the impact of ancillary procedures such as browlift (lateral or medial), cantoplasty, laser resurfacing, chemical peel, filler and lipostructure on the cosmetic outcome is evaluated.

METHODS: In total, 64 patients underwent standard blepharoplasty (29 patients) or blepharoplasty associated to other complementary procedures (35 patients). Results between the two groups have been compared in order to evaluate the benefits of ancillary procedures to improve the cosmetic outcome of the procedures.

DESCRIPTION and RESULTS: Goals of standard blepharoplasty are mainly represented by skin excess reduction and fat removal or repositioning. Young patients with a good quality of skin and subcutaneous volumes may fully benefit from this isolated procedure. More often, skin quality is compromised by age and photo aging, skin excess may depend also on eyebrow malposition, and volumes may be depleted by ageing processes involving fat, SMAS and bony volumes. Accurate preoperative evaluation should identify these abnormalities in order to alert the plastic surgeon to a surgical planning integrated by ancillary procedures targeted on the correction of secondary defects.

CONCLUSIONS: The comparison between results from standard blepharoplasties, mainly completed in the first 20 years of the professional activity of the authors, with the results obtained from the association of surgical and non-surgical procedures showed improved cosmetic outcomes in the majority of patients. Ancillary procedures such as laser resurfacing, chemical peel, lipostructure, cantoplasties or brow lift must be always taken into account in order to improve the aesthetic outcome of a standard blepharoplasty that remains indicated as an isolated procedure in selected patients.

2.1.12. Upper Lid Blepharoplasty in Male Patients with Lateral Hooding

Matteo MAFFEI, Italy

OBJECTIVES: The authors describe their technique for upper blepharoplasty in male patients, which includes an extended cutaneous excision that permits good correction of lateral hooding, reducing the need for browpey or brow lifting.

METHODS: The authors retrospectively reviewed the records of 50 consecutive male patients who underwent upper blepharoplasty according to the authors' technique. The

patients received local anesthesia. Cutaneous excision extended beyond the eyelid to include the lower lateral portion of the eyebrow area.

DESCRIPTIONS and RESULTS: Optimal functional correction was achieved in all cases, and the majority of patients were pleased with their aesthetic result. No significant complication occurred.

CONCLUSIONS: The authors' modification of the usual technique of blepharoplasty resulted in excellent correction, both functional and aesthetic, of the periocular area, particularly the lateral portion. The technique is safe and patient satisfaction is high.

2.2. Complications in Facial Surgery

2.2.1. Fat Injection as an Essential Tool for Lower Eyelid Retraction Management: A Retrospective, Observational, Single Blind, Case Control Study

Alberto Diaspro, Italy

BACKGROUND: The aim of this study was to evaluate the use of autologous fat graft injection to correct lower eyelid position

METHODS: A retrospective, observational, single blind, case-control study was carried out on 94 patients, presenting with lower eyelid retraction (LER) in 159 eyes. In the sub-population with unilateral eyelid retraction, the not affected site has been considered as a control and compared with the outcomes recorded after treatment of the contralateral side. Follow-up at 12 months was performed with a subjective assessment carried out by a questionnaire administered to patients whilst objective result assessment was performed 12 months after surgery by two independent blind examiners.

RESULTS: The eyelid upward reposition has improved one year after fat grafting in both bilateral (1.52 mm) and unilateral (1.7 mm) populations: the latter allowed to statistically validate ($p < 0.05$) the result with respect to the not affected site.

CONCLUSIONS: This is the first paper that highlights the outcomes of sole fat injection in the treatment of LER: blind objective evaluation of surgical outcomes along with a patient assessment of both functional and aesthetic improvement one year after surgery confirm its efficacy and reliability along with the first case/control outcome evaluation of the technique carried on in the sub-population of 29 patients affected by unilateral LER that validates the average improvement in the retracted eyelid one year after fat grafting as statistically significant. Nevertheless, longer follow-up periods and a larger sample size are needed to thoroughly confirm surgical outcomes and statistical results.

2.2.2. Lower Eyelid Retraction: A Frightening Complication after Blepharoplasty

Michele Pascali, Italy

OBJECTIVE: Lower eyelid retraction (LER) is a common complication after cosmetic blepharoplasty. Moreover, some patients complain of both aesthetic and functional impairments. Different surgical techniques have been described for the treatment of this complication; some of them are particularly useful in the prevention of LER such as canthopexy, others are powerful tools in the correction of the LER.

METHODS: A retrospective study was carried out on 110 patients operated on between January 2017 and January 2019 and who had previously undergone aesthetic lower blepharoplasty and experienced a LER after surgery. The surgery performed depends on the lamella actually involved in the pathogenesis of the lower eyelid retraction and varies from the simple lower eyelid lipofilling to a combination of canthopexy/canthoplasty, orbicularis oculi flap, midface lifting and lid spacers. The mean follow-up time was 12 months.

DESCRIPTIONS and RESULTS: In total, 90% of the patients had a full recovery after surgery without any major complication. Three patients experienced recurrency of LER with mild scleral show, two of them solved the problem with only lipofilling, the other one required a revision surgery with canthoplasty. In one case of lid spacer, we experienced a foreign body granuloma. In all the cases, we had an improvement in the aesthetics and the function of the eyelids.

CONCLUSIONS: Lower eyelid retraction (LER) represents a dramatic complication after lower eyelid surgery. Different combinations of techniques are nearly always required to solve problems of this kind.

2.2.3. Surgical Lip Remodeling after Injection of Permanent Filler

Fabrizio Chirico and Raffaele Rauso, Italy

OBJECTIVE: Nowadays, permanent filler use is largely discouraged by all the world's leading scientific societies, but at the end of the 1990s a very wide use of these medical devices was observed, especially for definitive lip enhancement. A major concern regarding permanent lip fillers is difficulty with revision should this be required to correct lip deformity in such situations.

METHODS: In total, 52 patients with lip deformity due to permanent filler injection underwent surgery between 2012 and 2021. The type of filler injected was not known by all the patients: 18 patients received silicon oil, 8 patients polymethylmethacrylate microspheres, and the remaining patients did not know. Prior to surgery, all patients underwent clinical and ultrasound examination.

DESCRIPTIONS and RESULTS: All the patients received general anesthesia, mean surgery time was 95 min for upper lip and 45 min for lower lip. At 12 months post-surgery, all the patients were pleased with the result.

CONCLUSIONS: According to the current state-of-the-art, in the case of lip deformity after injection of permanent filler, it is possible to approach with a minimally invasive laser procedure but only within 18–24 months after the injection: in all the other cases, it is necessary to perform surgical remodeling to also improve the mucosa aspect that underwent secondary expansion to filler injection; actually a well-codified surgical procedure has been published in the literature by the authors.

2.3. Fat and Fillers—From Modeling to Regeneration

2.3.1. Hyaluronic Acid Gel Injection for the Treatment of Tear through Deformity: A Multicenter, Observational, Single-Blind Study

Alberto Diaspro, Italy

BACKGROUND: Hyaluronic Acid (HA) gel injections were first used to treat the tear trough in 2005 and since then it has been a mainstay of the approach to lower eyelid deformities.

OBJECTIVE: The authors present this retrospective multicentric observational study based on a single blind, with objective and subjective evaluation and patient satisfaction related to the aesthetic improvement in a large group of treated patients.

METHODS and MATERIALS: From January 2016 to December 2019, 600 patients (468 women and 132 men) were enrolled in this study and 1200 tear trough deformities were treated with both needle and cannula techniques.

RESULTS: Average follow-up time was 12 ± 1 months and the outcomes were assessed both objectively and subjectively with respect to Hirmand's classification. Statistical analysis showed an inverse correlation between age and class amelioration.

CONCLUSIONS: HA injection of the tear trough is most effective in patients between 30 and 40 years of age, and while its benefits extend to up to 50 years old; afterwards, it should no longer be the treatment of choice. This confirms that correction of the tear trough with hyaluronic acid injections may provide an option to achieve immediate and durable results for up to one year after the injection in selected patients.

2.3.2. Restoring the Eyelid–Cheek Junction with Fillers: The GPoint Lift Technique and the Orbicularis Retaining Ligament

Francesco P Bernardini, Italy

BACKGROUND: Facial ligaments are changing their orientation due to the loss of their bony and fat support with increasing age. Soft-tissue filler injections placed in close

proximity to facial ligaments can re-adjust their orientation and thus help to achieve an improved and younger aesthetic appearance.

OBJECTIVE: To assess the aesthetic effects of a standardized injection treatment with soft-tissue filler placement directly inferior to the orbicularis-retaining ligament in the infraorbital region.

METHODS: A total of $n = 163$ patients with signs of infraorbital aging were treated with a standardized injection treatment targeting the orbicularis-retaining ligament (ORL). The 2D frontal images of the infraorbital region were rated by 11 blinded and independent raters with regards to the aesthetic appearance of the infraorbital region before and after the standardized injection treatment.

RESULTS: The aesthetic appearance of the entire infraorbital region (lid–cheek junction) was rated to be 2.22 (1.2) and 1.47 (1.2) before and after the treatment, respectively. The severity of the medial aspect of the infraorbital region (tear trough) was rated to be 2.34 (1.3) and 1.70 (1.2) while the lateral aspect was rated to be 1.96 (1.2) and 1.47, each before and after the treatment, respectively. The aesthetic improvement evaluated by the treating physician was 3.82 (0.5) (0–4, worst to best) whereas it was 3.62 (0.6) when assessed by the patient which can both be translated to “very much improved” compared to baseline.

CONCLUSIONS: The reason for the effectiveness of this injection treatment can possibly be found in strategically placed soft-tissue filler material helping to reposition facial ligaments that changed their orientation during aging.

2.3.3. Preoperative Analysis, Anatomic Landmarks and Treatment Planning in Lower Eyelid Surgery

Fabian Cortinas, Argentina

Error margin in periorbital surgery is almost zero and success requires meticulous planning, deep anatomy knowledge and precise preoperative evaluation. This paper is about the lessons learned since 1996 and it summarizes the ones that have helped me to avoid difficulties at the time of aesthetic eyelid surgery

2.3.4. Fat Grafting and Face Lifting: Volume, Regeneration and Contour Restoring

Paolo Vittorini, Italy

The most modern metabolic research on the adipose cell has shown that the adipose tissue and the stromal vascular fraction have regenerative functions. Therefore, it is a real metabolically active tissue, the only tissue that the plastic surgeon can shape thanks to modern regenerative plastic surgery. The surgeon exploits its dynamism and vitality, transferring it from areas where it is present in excess to deficient areas. The modern surgical approach in correcting aging processes that affect the face as well as the body must always be in the overview. In absence of this vision, the simple and univocal surgical correction could make the profile of the face not very harmonious, or it could bring out any other defects in the nearby areas. The aging process of the face determines the loss of tissues tone with their sliding vertically and the simultaneous loss of adipose volumes in the zygomatic-genius and labial areas. Lipofilling is a surgical technique that allows the fat cell and stem cells transferred from other areas of the body to the face to restore face volumes and contours. The goal must be the face reshaping with restoration of adipose volumes with millifat and micrograft combined with the face Smas-lifting. The author presents his own surgical method of facial rejuvenation by combining the two methods in the search for the best aesthetic result.

2.3.5. Comparison of Harvesting and Processing Technique for Adipose Tissue Graft: Evaluation of Cell Viability

Alessandro Gennai, Italy

OBJECTIVE: The aim of the project consisted of the control of cell viability of adipose tissue harvested using a guided procedure the two types of cannulas having 0.8 and 1 mm side port holes and processed following SEFFI (Superficial Enhanced Fluid Fat Injection).

The results were compared with tissue harvested with a standard liposuction technique and processed with a standard procedure consisting of enzymatic digestion (collagenase).

METHODS: This study was performed on adipose tissues harvested from 7 patients (6 females and 1 male) with an average age of 48.5 years with three different techniques. We compared the cell vitality of every sample at T0 and T72.

RESULTS: Lipoaspirate tissue derived by guided harvesting procedure with 0.8 and 1 mm cannulas from all samples proved to be vital and possess viable cells. The average absorbance was similar immediately after plating (T0) and 72 h after (T72) for the two cannulas, 0.8 and 1 mm cannulas. The two systems proved to equally harvest vital tissue. An increase in cell viability was observed in all samples for each condition (0.8, 1 mm and enzymatic digestion).

CONCLUSIONS: This study proved that guided harvested adipose tissue with small cannulas with small side port holes yields a comparable amount of viable cells compared to adipose tissue harvested with a liposuction system and processed with enzymatic digestion (collagenase). This study confirms that the minimally invasive technique and minimal manipulation of the adipose tissue could yield tissue with a good amount of viable cells. This micro-fragmented adipose tissue is a promising source for regenerative treatments.

2.3.6. Evaluation of the Number, Biophysical and Multipotent Characteristics of Adipose Derived Stem Cells Harvested by SEFFI Procedure and Interaction with Different Types of Hyaluronic Acids

Alessandro Gennai, Italy

OBJECTIVE: Injection of autologous adipose-derived stem cells (ADSCs) and a stromal vascular fraction (VSF) into dermal and subdermal layers promises regenerative advantages by improving skin volume and rejuvenation. Injectable hyaluronic acid (HA) is a temporary dermal filler that, by improving skin hydration, reduces the appearance of fine lines and wrinkles, facial folds and creates structure and volume to the face and lips. This study combined the grafting of micro-fragmented fatty tissue with the hyaluronic acid filler procedure, using three different types of HA.

METHODS: Each sample of micro-fragmented adipose tissue harvested using the superficial enhanced fluid fat injection (SEFFI) technique collected from 8 patients was equally divided into two specimens. One of these (EMU specimens) was emulsified by gently applying 10 back-and-forth passages from one syringe to another to fluidify the tissue. The other one was not emulsified (NON-EMU specimens). Both EMU and NON-EMU specimens were divided into four aliquots: one served as control (Ctrl), and the others were combined with each of three tested hyaluronic acids. Afterward, we assessed the cellularity of mesenchymal phenotype (defined as the number of adherent cells with mesenchymal phenotype per milliliter of adipose tissue) and the in vitro capacity of differentiation in mesenchymal lineages.

RESULTS: Despite low cellularity from emulsified samples combined with HA, isolated cells could grow and expand in culture; thus proving their proliferative ability, showing “good quality” in all conditions (Ctrl/NON-EMU, EMU, and combined with HA). The cells could differentiate towards mesenchymal lineages, express mesenchymal markers by flow cytometry analysis, and maintain their stemness potential.

CONCLUSIONS: The combination of emulsified harvested tissue with HA products can be exploited to counteract the loss of volume and skin aging of the human face and body. This approach to regenerative aesthetic treatment is a promising treatment for facial antiaging therapy.

2.3.7. Buttock Reshape with B.A.F.F.I. Technique

Antonella Quaranta, Italy

OBJECTIVES: More and more frequent is the demand for the correction of the buttocks, a focal point of sensuality and aesthetic attraction. The difficulty in correcting the imperfections of this region without using the scalpel is often challenging, it requires the

synergy of multiple treatments. The study presents a protocol for RESHAPE BUTTOCK made with combined treatments: Biostimulation, Filler and Biofiller. Treatments result in 70 patients.

METHODS: NEW CONCEPT BALANCE: Combined treatments to obtain the volumization often associated with hip reduction and remodeling, sacral region and trochanteric area.

KEY WORDS: Volume and convexity; tone and compactness.

1ST step—HA free 25 mg/mL plus skin restructuring complex composed by 8 amino acids, 3 antioxidants, mineral salts and vit B 6, alternating with HA cross-linked seeds every 10 days for 4 times. Double Plane technique through the use of a Medical Device with needle, micro wheals injections alternated with a technique with a micro cannula Cross Fan Technique. In particular, Nano Fat + HA resilient non-cross-linked.

DESCRIPTIONS: 2ND step—total remodeling with volume restoration with B.A.F.F.I. TECHNIQUE (AUTOLOGUS FAT FILLER INJECTION BIOFILLER): with a combination of Autologous Fat and dynamic HA, cross-linked 23 mg/mL, Lidocaine 0.3%, to obtain a Personal Filler. Treatment performed easily with different shaped cannulas to implant adipose tissue that modifies and corrects shape and volumes. Cross Fan technique, linear retrograde release with maximum projection in the “light point” to achieve volume and convexity for good shape and better texture.

3RD step—when the adipose tissue is not enough sufficient to obtain an appreciable filling, we can perform injection of HA body intense, HA 20 mg/mL with Macromolecular structure, Fully Hydrated Cross-Linked HA, Soft Shell Technology formulation, injected with 18 G micro cannula linear retrograde release technique.

With this synergy of materials and methods, a better result in terms of naturalness of the profile has been shown, and a good result regarding the filler effect and skin trophism. It has been observed also a longer duration of the results obtained up to 6 months for the biostimulation protocol and 8 months with the use of Biofiller.

RESULTS: In 50% of cases treated with Lipofilling after 5/6 months, there is a reabsorption of 45% of the implanted fat. In cases treated with BIOFILLER POWER—enriched with ADSC Expanded—a lower reabsorption of LIPOGRAFT and a better duration of the implant has been noticed, after one year MRI check-up. Patients treated with BIOFILLER were satisfied to repeat the treatment and there were no adverse cases. Only 20% have developed hematomas and edemas which spontaneously have been resolved. In all cases, except those subjected to biostimulation, antibiotics and contained sheath have been prescribed.

CONCLUSIONS: Outpatient, repeatable treatment, minimum down time, appreciable result. These protocols are a valid alternative to satisfy each request and show in addition to side A also the “B side”.

2.3.8. An Italian Online Survey Regarding the Use of Hyaluronidase in Previously HA-Injected Noses Looking for Surgical Rhinoplasty

Raffaele Rauso and Samuel Staglianò, Italy

OBJECTIVE: Nowadays, non-surgical nose reshaping with hyaluronic acid (HA) fillers is a worldwide renowned procedure; however, when injected into the nose, HA has shown really long lasting results. The aims of our study are to evaluate the decision-making process and management of patients undergoing rhinoplasty, with previous HA filler injection, and evaluate if consensus could be achieved to recommend guidelines following an online survey.

METHODS: Between April and May 2021 an online survey was sent to 402 Italian surgeons of different specialties (Plastic Surgeons, ENT and Maxillo-Facial Surgeons): the majority of surgeons participating in the study were enrolled among AICPE members (96%); the remaining 4% were contacted directly by the senior author (RR) and were enrolled due to their renowned activity mainly focused on nose surgery. The first question was related to the years of practice in surgical rhinoplasty; the second one about the number of rhinoplasties performed per year. Question 3 was related to whether hyaluronidase

injection was performed or not in cases of previously injected noses with HA that have to be operated on. For the ones who were used to injecting hyaluronidase in previously injected noses with HA, another question was related to the time frame between HYAL injection and surgery.

DESCRIPTIONS and RESULTS: A total of 72 surgeons, in which there were 56 AICPE members and other 16 surgeons previously enrolled by the senior author, replied and completed the survey: out of the 402 questionnaires sent, the response rate was approximately 18% (72 surgeons). Only 41.6% (30 surgeons) of the participants interviewed were eligible according to our criteria, as they reported performing more than 50 surgical rhinoplasties per year.

CONCLUSIONS: Despite the different therapeutic options available, based on the results of this survey, the use of HYAL before surgery is the choice with the broadest consensus. However, considering the limitations present in this paper and the low response rate to the questionnaire, a larger case-control study with long follow-up is necessary to understand if, in patients seeking surgical rhinoplasty who already received non-surgical nose reshaping with hyaluronic acid fillers, the injection of hyaluronidase prior to surgery is mandatory, recommended or not.

2.3.9. Non-Surgical Facial Progressive Rejuvenation with Fillers: The CPA Method Francesca De Angelis, Italy

INTRODUCTION: The full facial approach for facial rejuvenation is often suggested as an alternative to lifting and surgical procedures, but many of the suggested procedures are based on high numbers of ml (sometimes more than 15/16 mL) producing results not always well accepted by the patient, economically not affordable, or addressing areas of the face that finally end up modifying one's facial features. We developed a systematical approach based on bone structure, fat and ligament aging, using a well-known collagen stimulator product, poly lactic acid (PLLA).

MATERIAL and METHODS: We selected 25 patients, females, ageing between 45 and 65 years old, with different degrees of ageing. We injected patients using a new method (CPA: Centripetal Progressive Approach) based on the Rorich and Pessa anatomical studies regarding the ageing progression of the fat pads and all the new anatomical studies on ligament action and deformation during the ageing process. We used 6 mL per patient, per side, of PLLA in three sessions, spaced by 90 days, addressing the superficial fat compartments, the deep fat pads and bone, in a systematic and well reproducible approach. We took pictures of our patients before, immediately after, 1 month, 3 months, 6 months and 1 year after.

RESULTS: We evaluated our results using a self-assessment test and two independent observers that evaluated the picture of the patients, obtained with a 3D system. We reported improvement rates between 50 and 75% at 3 months, and between 65 and 90% at 1 year showing the long-lasting effect of the method and the product combination. All the patients and the observer evaluated pictures comparing the "after" pictures with the picture of the same patient 10 years before the treatment, to evaluate how close the results was to the "youngest" version of the treated patients. Patients and observers evaluated the result obtained with the CPA method to be extremely natural and able to preserve the unique characteristics of each patient.

DISCUSSION: Patient and doctors are in search of new techniques of rejuvenation that allow obtaining a more "natural" and fresh look without producing patients all resembling the same or completely different from whom they feel they were when younger. We studied a new system that can possibly allow a more natural rejuvenation, long lasting and highly affordable for patients of different countries.

2.3.10. The T.A.R. Autologous Regenerative Therapy in the Treatment of the Imperfections of the Face

Bruno Bovani, Italy

The use of lipofilling in correcting facial volumes is a technique that has been successfully used for several decades. However, the improvement in the techniques of sampling and preparation of the material to be implanted have made it possible to obtain a considerable variability in characteristics such as to allow a much more refined correction of the imperfections of the face.

In fact, the use of a standardized preparation procedure, using a particular disposable device and the accompanying execution protocol, allow us to have material with very different volumizing and regenerative characteristics. Therefore, starting from the analysis of the characteristics of our patient's face, we will be able to create a personalized program that, during a single implantation session, favors correction of volumes in some areas and stimulation of collagen and elastic fibers in others.

The T.A.R., moreover, can be successfully combined with many other technologies to achieve optimal facial harmonization.

This communication will present the results obtained in two years of experience with T.A.R. alone and in combination with energy devices and heterologous fillers.

2.3.11. Full Face Approach and Reshaping of Facial Volumes: Fat Graft or Dermal Fillers? Mattia Siliprandi, Italy

OBJECTIVES: The role of fat graft and fillers in assessing and correcting facial volumes has increased dramatically through the past decades. The approaches have evolved more and more from simply filling wrinkles and depressions towards volume restoration and facial three-dimensional reshaping. The author's aim is to compare the two techniques in order to underline the advantages and disadvantages of each, and determine whether one can be considered better than the other.

METHODS: Patients of different ages and genders, requiring a correction of facial volumes, have undergone a full-face treatment, either with dermal fillers or fat graft. The assessed areas include: cheeks, cheekbones, nose, temples, lips, jawline and chin. The two techniques have been compared considering differences in terms of gender, ages, and facial areas.

DESCRIPTIONS and RESULTS: Dermal fillers are more practical and are technically easier to use; moreover, no convalescence is needed and return to social life is immediate. Lipofilling treatments have shown more advantages in terms of result duration, material availability and costs. Facial areas such as the nose, the chin and lips are better with dermal fillers, while others, such as the periorbitalis region and the cheeks, are better treated with adipose tissue. Lipofilling is usually the best choice in adult and older patients, while dermal fillers are best suited in adolescents and young patients.

CONCLUSIONS: Full-face treatments with dermal fillers and lipofilling allow to obtain excellent results with both techniques. Patient's anatomical features, age, expectations and personal needs are all factors that must be carefully evaluated when choosing between the two techniques.

2.3.12. Design Lip Elegance Algorithm for Creating Natural Looking Lips with HA Filler Andrea Felice Armenti, Italy

INTRODUCTION: Lip filler injection is growing as one of the top face treatments, thanks to the social media boom. Performing elegant and natural results is mandatory for modern aesthetic standard. Lips are unique and women's wishes are completely individual, so the operator has to follow a useful and simple algorithm for creating the best shape for each face. Following this algorithm allows the operator to avoid bumps, unnatural or duck shapes and above all to enhance lip global beauty.

OBJECTIVE: Understanding a visual algorithm for lip filler treatment. Learning step by step all the passages and techniques for creating natural looking lips with HA fillers.

METHODS: The algorithm is divided in two steps. **FIRST STEP:** The overall lip shape on face. Operator has to identify (1) the individual dental class of patient (on lateral view) and (2) the individual ratio between upper/lower lip (on frontal view). By this simple identification, the operator will decide which part on the lateral and frontal has to be enhanced and which is not to be filled. **SECOND STEP:** The ideal shape building. Lip shape is divided in five parts. Three parts on the upper lip (two lateral sides, one central part), two parts on the lower lip. Each lip part has to be constructed by following specific geometric rules. A “rule” (on this purpose) is a specific shape or angle the operator has to create with HA filler. As every part has its own specific rules, the operator could not make mistakes. Therefore, operator will create a shape that will never be bad or wrong.

DESCRIPTION and RESULTS: Between September 2018 and October 2018, 100 female patients underwent lip filler augmentation using this algorithm of construction of the shape. Each subject underwent photography and completed 2 surveys (follow up at 6 months and 1 year) measuring self-perception of mood before treatment and after achieving an optimal cosmetic result. Aesthetic improvement with treatment was assessed using a 5-point Investigator’s Global Assessment (IGA). Responses to treatment after 6 and 12 months were observed in 90% and 80% of patients, respectively. The mean value of IGA score in months 6 and 12 were 4.4 ± 0.60 and 4.2 ± 0.67 , respectively. The study subjects were all satisfied with their lip improvement; lip shape is correct in frontal and lateral views in each case. Reported adverse effects were temporary and mostly mild in severity.

CONCLUSIONS: By using a visual algorithm to construct the best version of each individual lip shape, operators, despite his/her experience and individual patient requests, could create correct shapes with no bumps, duck shadows or incorrect proportions.

2.3.13. Eyes Lypogold Method. Use of Nano Fat for a Periorbital Rejuvenation

Enrico Guarino, Italy

BACKGROUND: The tear trough is a commonly requested area for aesthetic correction but is challenging to treat well, especially when concurrent with other deformities such as eye bags. There are multiple possible treatment methods for the tear trough and eye bags, such as surgery and hyaluronic acid (HA) filler injection, with the latter gaining popularity in recent years. HA use is not without side effects and needs an accurate clinic evaluation for a correct indication. Moreover, its use is not efficient for treating eye blemishes such as dark circles and skin laxity. Our presentation aims to demonstrate the advantages of using nano fat (NF), obtained with a simple and reproducible procedure, for tear trough filling as a filler and a regenerative effect connected to the mesenchymal stem cells for the entire periorbital area.

MATERIALS and METHODS: After local anesthesia, a few milliliters of fat were collected, washed, and processed to obtain NF rich in vascular stromal factor (SVF). We used a 2 mm blunt cannula for harvesting the fat with eight smooth 2.1 mm sized holes. After collection, we processed the fat with an FDA-approved sterile closure device (mini-TC). For each eye, 1 mL of NF was injected with a 23G blunt cannula into the tear trough and under the entire eyelid for a volumetric and restorative effect. In addition, 0.5 mL of NF was injected in the subdermal using a micro-needling device (Gold Roller) to improve the color of the skin and stimulate skin rejuvenation. We took Photographic images using the Quantificare device before the injection (day 0) and at months 1, 3, 6 and 12. Follow-up of the patients was done every 3 months for 12 months of treatment to assess the state of efficacy persistence.

RESULTS: From January 2020 to June 2021, we treated 30 patients. No immediate and late adverse effects were reported. At 12 months follow-up, the result was persistent in 90% of patients. The results were also stable in the 15 patients who arrived at 18 months follow-up. All the patients were satisfied with the results and considered the procedure painless and straightforward.

CONCLUSIONS: The use of NF for a filling and regenerative effect is an efficient and natural procedure for treating the periocular area. Our approach is simple and reproducible in medicine, with a shallow risk of side effects.

2.3.14. Soft Tissue Contouring of the Upper Face in Facial Feminization Surgery for Transgender Females

Cammarata Emanuele, Zabbia Giovanni, Maniaci Giuseppe, Speciale Antonino, Rosatti Fernando, Tondini Greta, Maltese Martina and Cordova Adriana, Italy

OBJECTIVE: The face is one of the most exposed areas of the body and is crucial for interpersonal interactions. Important anatomical differences in skeletal and soft tissue anatomy exist between male and female individuals. Facial incongruity plays an important role in gender dysphoria among transexual patients and has a negative impact on a patient's psychosocial well-being. Facial feminization surgery (FFS) incorporates a broad range of procedures, mostly performed in transwomen patients, that attenuate masculine features of the face in order to give a more feminine appearance, with the aim to restore harmony between gender identity and facial appearance; thus alleviating social distress and improving quality of life. These procedures incorporate remodeling techniques that address both bony and soft tissues of the face. In this paper, we report our experience in soft tissue contouring, as adjunct to bony remodeling of the upper face, in FFS among transgender females.

METHODS: We present our experience in soft tissue contouring of the upper face through a retrospective analysis of 15 consecutive transgender females who underwent soft tissue remodeling procedures for facial feminization (fat grafting and face lift) between March 2016 and December 2019. Demographic, clinical, intraoperative and postoperative characteristics of patients were extrapolated from medical records. Patient-reported satisfaction was assessed too. Patient pictures were taken before the operation and postoperatively at 3 and 12 months.

DESCRIPTIONS and RESULTS: Patient age ranged from 25 to 45 years (mean 34 years). Mean postoperative follow-up was 15.4 months (range 4–30 months). Fat grafting was performed in all patients. The addressed regions were temples, forehead, cheeks and cheekbones, nasojugal folds and lips. In 5 out of 15 patients, a deep plane facelift was performed too. Intraoperative techniques are meticulously reported in the paper. In our series, we observed no complications and all patients were fully satisfied about the aesthetic outcome of the surgery.

CONCLUSIONS: In our series, soft tissue reshaping techniques allowed to correct disharmonies in the overall facial framework and proved to be crucial in obtaining a feminine aspect; thus alleviating gender dysphoria and positively impacting on quality of life and self-esteem among patients who underwent gender-affirmation surgery.

2.3.15. Enzymatic Liposuction and Protein Diet: A Winning Combination

Antonella Montagnese, Italy

TARGET: Liposuction is not always an operation that is accepted with a light heart, for many patients still today this operation inspires fear; then there are those who, due to various pathologies, cannot undergo classical liposuction or poorly tolerate the postoperative regime. In addition, recovery times, where work and family rhythms do not allow to stop, represent an important limitation of classical surgical liposuction and also of liposculpture. It is precisely for this reason that many people choose to postpone or even not have an operation that would improve their health and self-esteem. It is precisely for these people that enzymatic liposuction was designed to offer them a new hope of well-being.

METHODS: Our patients mostly affected by voluminous localized adiposity, underwent an average of 3 sessions of enzymatic liposuction carried out approximately 1 month apart. All were prescribed a protein diet to be followed in the following days, combined with weekly lymphatic drainage or cryobandage sessions. All were subjected to weight

measurement, the circumferences of the treated areas and the calculation of the BMI at each infiltration session

DESCRIPTION OF THE RESULTS: All treated patients were satisfied with the results obtained. In terms of volume, the body remodeling was astounding with a loss of circumference of even 10 cm. The result was also obtained in those districts affected by long-standing fibrosis and cellulite, which the patients reported never losing despite the countless diets. Certainly, the protein diet allowed for faster results, with a good maintenance of skin elasticity; thus, avoiding irrecoverable relaxation.

CONCLUSIONS: Liposuction without a scalpel is the ideal solution for those who fear surgery or for those who, for health or time reasons, cannot undergo the procedure. This enzymatic non-surgical treatment is quick, free of anesthesia and has no substantial contraindications, so men and women can sometimes undergo it in the short period of a lunch break. A crucial step forward in aesthetic medicine and patient body care.

2.4. Breast Augmentation. The End of Religions

2.4.1. Relevance of the Inframammary Fold in Breast Augmentation Planning and Surgery Egidio Riggio, Italy

INTRODUCTION: Every planning process for breast augmentation should have some firm anatomical landmark to take into account in the design of the new breast. Nipple position, inframammary (IMF) location, footprint width or height are potential candidates. In my experience, the steadiest landmark is the IMF and the least the nipple position following breast augmentation, in order to reduce the related complications.

METHODS: The preservation of IMF anatomy was observed in a prospective series of 38 patients (76 implants) in which the choice of implant was in relationship with nipple and IMF placement and point of maximal projection according to my approach (Zenith system). Any modification of IMF location was estimated in 0.5 cm multiples. Complications such as bottoming-out and double bubble were estimated.

DESCRIPTION and RESULTS: IMF anatomy with its pre-op location was maintained in 18 women and changed (e.g., lowered) in 9 bilaterally and 11 unilaterally. Overall mean value: cm 0.35 (Min. 0–Max. 2). Lowered IMF mean value: cm 0.80 ± 0.45 (Min. 0.5–Max. 2). The data show that the IMF was changed unilaterally in 11/76 breasts for aims of symmetry, and only in 9 bilateral cases for aims of pocket enlargement. No bottoming-out was reported. The degree of satisfaction was good to optimal in 91% sufficient in 4%, average to poor in 5% of cases.

CONCLUSIONS: Many surgeons try to enlarge inferiorly the pocket to place the chosen implants but, on the contrary, we have to choose implants for proper height and projection that permit us not to lower the implant placement excessively. In some cases, we have to evaluate mastopexy in order to elevate the nipple rather than lower the implant. In my sample, nearly 75% of augmentation did not lower the IMF and where it is performed this should be minimal (meanly 0.35 cm). These data are a sign of all my implant selection system and pocket planning according to the Zenith system. Bottoming-out is strictly related to the IMF pseudoligament weakening and lowering of its level on the thorax.

2.4.2. From an Artistic and Anthropomorphic Approach to the “Sein Restant” Technique for Breast Surgery

Aurélie Fabié Boulard, France

The request for beauty has always been a concern. Twenty five years ago, I presented a study about the beauty of the breast in art and history. We also analyzed 70 volunteers and an ideal model bust used in store windows. The goal was to find reproducible criteria that can be used in breast surgery such as a golden number.

I use the “sein restant” technique for mammoplasties (reduction and mastopexy) taking into account the arrow-height ratio of the bust which is the objective criteria resulting from this study.

2.4.3. Histological and Immunohistochemical Evaluation of Human Breast Capsules Formed around Five Different Expander Surfaces

Barbara Cagli, Italy

BACKGROUND: Polyurethane (PU) coating and implant texturization were designed to reduce the incidence of capsular contracture (CC), even if the link between surface type and CC remains unclear. To date, the etiopathogenetic aspects have not been fully clarified. The aim of this study was to evaluate capsules formed around 5 different breast expanders.

METHODS: Thirty patients were divided into randomized groups implanted with 5 different expanders: Smooth, coated with PU foam (Poly), with a low-microtextured, high-microtextured, and macrotextured surface (L-Micro, H-Micro, Macro). Specimens of the capsules were removed at implant reconstruction and evaluated for morphology and immunohistochemistry expression of α -smooth muscle actin (α -SMA), collagen type I and III, CD68, CD34, and CD3. Remodeling combined index was also evaluated.

RESULTS: Expression of α -SMA was significantly increased in Smooth capsules versus Poly, L-Micro, and H-Micro groups ($p = 0.007$; $p = 0.010$; $p = 0.028$), while the prevalence of collagen type I in Smooth capsules and collagen type III in Poly capsules identified a stable versus an unstable tissue. Remodeling combined index and α -SMA showed an inverted correlation. CD68 and CD34 cellular expression increased significantly in Poly capsules with respect to Smooth ($p < 0.001$; $p < 0.001$) and Macro groups ($p < 0.001$; $p < 0.001$). CD3 showed no significant difference among the groups.

CONCLUSIONS: In this human study, we observed that an increased tissue remodeling and a reduced myofibroblasts activation, along with the inflammatory infiltration and the neo-angiogenesis, especially in Poly and L-Micro groups, might promote the formation of an unstable and less fibrotic capsule, lowering the risk of CC.

2.4.4. Anatomical Implants and Auto-Augmentation with a Modified Ribeiro Flap

Roberto D'Alessio, Italy

Breast augmentation combined with mastopexy is associated with a high complication rate especially when anatomical implants are used. In fact, in addition to wound dehiscence, implant exposure, capsular contracture and double bubble deformity, the rotation of the implant is a common risk. For this reason, many surgeons prefer to use round implants when performing augmentation/mastopexy. We describe our approach using anatomical implants combined with a novel modified Ribeiro flap to minimize these complications.

Between January 2018 and October 2021, 36 consecutive patients with grade III mammary ptosis underwent augmentation/mastopexy with anatomical implants and auto-augmentation with a modified Ribeiro flap. All patients underwent inverted-T/short T mastopexy with either subfascial or dual plane technique (depending on pinch test) and anatomical breast implants using a Modified Ribeiro flap with its specially designed two medial and lateral tails and supero-medial nipple-areola complex pedicle.

None of the patients suffered from capsular contracture, no implant rotation occurred, no implant exposure was noted. One patient (suffering from Raynaud's disease) experienced wound margins necrosis, and wound dehiscence leading to tissue loss at the inferior pole. Thanks to the Ribeiro flap protecting the implant, no long term complications were noted.

No breast ptosis recurrence was noted at 30-month follow-up.

Our technique using the Modified Ribeiro flap provides:

- Stabilization of the implant and its projection.
- Avoiding implant rotation (no implant rotation occurred at maximum follow up).
- Reducing complications such as implant exposure.
- Breast lifting was performed through the anchoring of the Modified Ribeiro flap to either muscle fascia (in sub-fascial technique) or to muscle border (in Dual plane) improving the profile of the breast.

2.4.5. Breast Implant Capsule: Are You Going to Leave It in?

Antonio Guastafierro and Stefano Rosso, Italy

INTRODUCTION: The demand for revision mastoplasty has increased over the past 10 years, and the surgeon's decision on breast implant capsule management is still cause of controversy. Some critical questions remain: Can removal be avoided in cases where the capsule has a benign appearance? Can the utilization of residual breast capsule be considered a safe procedure in the long run? The described cases of capsular cancer degeneration increase, and in some cases, these capsular tissues, left inside the breast, may cause diagnostic problems. To support our conclusion, we describe a particular case with a complex preoperative diagnosis.

MATERIALS and METHODS: A 45-year-old patient with bilateral breast implants and with no family history of breast cancer presented to our attention in August 2021 with a palpable mass at the upper pole of the left breast. The patient had bilateral breast augmentation in 2010 and a second surgery in January 2015 to treat a capsule contracture. From September 2015, the patient reported a right breast seroma that was transcutaneously aspirated and treated with corticosteroids. From October 2020, the patient noticed a painful swelling at the upper pole of the right breast. In April 2021, breast MRI with contrast reported "a hyperintense oval formation in T1 with a maximum size of 50 × 37 × 27 mm without enhancement after the injection of intravenous contrast at the upper inner quadrant of the right breast". On September 2021, a breast ultrasound showed a "coarse formation with mixed echotexture, fluid in the central component and with hyperechogenic calcific peripheral formations with a diameter of 60 mm" at the right upper pole of the right breast and a "solid formation with a diameter of about 45 mm with coarse, hyperreflective, calcified clods" at the left breast. Both formations appeared indissociable from the periprosthetic capsules. Therefore, in September 2021, the patient underwent revisional surgery. We performed bilateral breast implant replacement and removal of the two capsular masses

RESULTS: On the right breast, in the prepectoral space firmly attached to the pectoralis fascia was found the presence of a capsulated formation filled with hematoma-like material. We found a calcific formation in the left breast similar to a "cuttlefish bone" attached to the pectoralis fascia in a prepectoral plane. We removed these two formations completely, and the intraoperative histological examination was negative for breast cancer. Then, we replaced the implants in a neosubpectoral pocket. No complications occurred. The postoperative period was uneventful, and the patient was discharged from the hospital one day after surgery.

CONCLUSIONS: Nowadays, we are discovering new diseases such as ALCL in patients with breast implants implanted up to 30 years ago. The paucity of data on the behavior of periprosthetic capsules of the new smooth or microtextured implants implies adopting the precautionary principle. Since sufficient scientific information is not fully available on this topic, we recommend performing total capsulectomy in every situation of implant removal or exchange.

2.4.6. Advantages of the "Bra-Flap" in Breast Augmentation to Expand the Lower Breast Pole, Prevent Double-Bubble and Bottoming-Out

Roberto Bracaglia, Regina Fortunato and Maria C Servillo, Italy

INTRODUCTION: Patients who presented moderate to severe hypoplasia requiring lowering of the inframammary fold (IMF) and cases of tuberous breast deformity need a technique particularly effective in the treatment of the constricted lower pole, that might require glandular expansion. In these cases, the "Bra-Flap" technique represents a safe and effective option, which is useful also in patients with moderate to severe breast ptosis and/or a history of obesity, that is frequently associated with an increased risk of secondary ptosis and implant malposition.

MATERIALS and METHODS: The Bra-flap modified dual-plane technique was used in 135 patients. Through periareolar incision, a subpectoral pocket was developed in

a blunt way from the lateral aspect of the muscle and extended caudally, elevating the serratus muscle, external oblique muscle, and rectus aponeurosis from the costal plane in continuity with the pectoralis muscle. After completing dissection, a horizontal full-thickness incision of the pectoralis major was performed at the level of the NAC, from the lateral edge of the muscle to the sternum. This horizontal pectoralis split was made through a meticulous progression of coagulation with forceps and cut, to avoid muscle retraction and delamination. The muscular-fascial Bra-flap, represented by the lower fibers of the pectoralis major, the external oblique and serratus muscles and rectus aponeurosis, was employed as a “hammock” to maintain the implant in the lower pole. Therefore, the implant pocket was subglandular in the upper pole and submuscular in the lower pole.

RESULTS: The follow-up period ranged from 24 months to 20 years. No cases of double-bubble deformity or implant bottoming-out were observed. No complications and no cases of animation deformity were recorded.

CONCLUSIONS: In over 20 years of experience, the Bra-Flap technique has proven to be a reliable procedure that offers natural and long-lasting results. The Bra-flap reduces palpability of the implant even in thinner patients and in cases requiring significant lowering of the IMF, with improved stability of the results. This technique is particularly effective for the treatment of breast conditions that might require glandular expansion, such as breasts with constricted lower pole or tuberous deformities. Regarding animation deformity, no cases were observed, since the caudal Bra-flap has no contractile activity, due to interrupted innervation of the pectoralis nerves. One of the most innovative aspects of this technique is represented by the major support offered to the implant by the Bra-flap that allows greater stability of the outcomes even in flabby breasts. This technique could be particularly suitable for patients at a greater risk of secondary ptosis, as with some cases of breast augmentation with mastopexy or massive-weight-loss patients. The Bra-flap reduces the risk of sliding down of the implant, that can be very useful, especially with the recent increase in the use of smooth and nanotextured implants.

2.4.7. A Cheap and Effective Three Layers Suture for IMF Breast Augmentation Raffaele Rauso, Italy

OBJECTIVE: Breast augmentation is one of the most performed procedures worldwide. Several surgical access methods can be performed although IMF (infra mammary fold) and incision is considered one of the safest. We present a continuous 3-layer suture procedure to seal the IMF.

METHODS: In last 24 months, 83 consecutive patients underwent breast augmentation with IMF incision, the surgical access was closed with just one 3/0 vicryl (Ethicon, Johnson & Johnson) continuous suture per side, performing a 3-layer closure.

DESCRIPTIONS and RESULTS: At the end of breast implantation, wound closure is performed in a 3-layer fashion with a single 3/0 vicryl suture (Ethicon, Johnson & Johnson). The closure starts from the inner medial side of the incision, fixing breast fascia with thoracic fascia; once the knot is performed (leaving at least 1 cm length on the free edge of the suture) the suture continues fixing breast fascia, thoracic fascia and the subcutaneous tissue of the caudal flap continuously, from the medial side of the wound to the lateral side. Once the lateral side of the incision is reached, the suture is continued going back from the lateral to the medial side with a subcutaneous continuous closure; for each subcutaneous stitch, a bite on the deep dermis is performed, each passage for each flap (cranial and caudal). Once the second layer closure is finished, a knot between the free edge of the first suture is performed on the first layer (the first knot performed breast fixing and thoracic fascias) and the suture itself. At this point, the free edge of the suture is shortened and the third intra-cuticular layer suture is performed; once the lateral side of the wound is reached the intra-cuticular closure is closed with an interlocking suture, then the needle is inserted intradermally into the lateral edge of the wound and fall out of the skin 1 cm apart. No complications such as wound dehiscence, bad scarring, scar displacement, etc., were recorded.

CONCLUSIONS: We would like to share this suture technique because we think it could be helpful for specialists involved in breast augmentation surgery although blinded controlled studies should be performed to support the effectiveness of this technique

2.4.8. Dynamic Breast Deformity (Bad) Correction: An Integrated New Approach (Integrated New Full Undermuscular Pocket) Using Smooth Implants

Francesca De Angelis, Italy

OBJECTIVE: Dynamic breast deformity (BAD) is a common issue after dual plane breast augmentation. In the past, patients were quite tolerant to consider BAD as a regular side effect when partial sub muscular plane was requested. In recent years, more and more patients were complaining about BAD and requesting surgical correction. We then decided to revise the surgical techniques offered in the literature for surgical correction/prevention and finally we decided to combine two techniques that in our opinion were the easiest/fastest and with more stable results.

METHODS: In the last 3 years (2017–2019), we selected 120 patients with the correct indication to be treated with our modified surgical approach using smooth implants: the **Integrated new Full Undermuscular Pocket**. This new surgical technique is an integration of two famous and well-known techniques already used for the BAD syndrome.

DESCRIPTION: The first one was presented and published by Mario Pelle Ceravolo (*Aesth plast surg 2004*) and the second was published by Roberto Bracaglia (*Triple plane technique for breast augmentation: solving animation deformities Aesth plast surg 2013*).

DISCUSSION: We believe that the idea of Bracaglia about elevating systematically 4 muscles (pectoralis major/rectus/oblique and serratus) gives a standard and predictable coverage to the breast implant. On the other hand, we also believe that the horizontal full thickness section into the pectoralis proposed by Bracaglia can lead, over time, to a shortening and retraction of the pectoralis at the stenum level offering a partial visualization of the implant. That is why we preferred to undermine the gland (as proposed by Pelle Ceravolo) when approaching periareolar, and dissect the muscles as a compact unit starting from the new sub mammary fold and then make our transverse section at the nipple areolar level to avoid BAD.

RESULTS: We present our results with this new approach with all the related data regarding complications and common mistakes.

2.4.9. The Tuberos Breast: Classification and Technical Details

Roberto D'Alessio, Italy

The tuberos breast has always been a major challenge for the plastic surgeon. Failure to recognize the deformity will inevitably lead to a sub-optimal correction since the simple introduction of a breast prosthesis will not adequately correct the condition but, vice versa, will result in further imperfections (Snoopy breast, double bubble deformity, etc.). Basically, the tuberos breast, in its different expressiveness, is characterized, in addition to a more or less marked hypoplasia, substantially by a development defect in the lower quadrants with a reduced distance between the lower areolar margin and the inframammary fold (tuberos or cylindrical aspect breast), a tenacious adhesion of the parenchyma to the fascia (constricted breast), sometimes a hypertrophic and ptotic areola with pseudo-herniation of the glandular tissue, frequently a certain degree of asymmetry. From this, we understand the need to adequately frame the present condition in order to implement all the appropriate changes to be made. Basically, and on the basis of the above, it will be necessary to correct the implantation base of the breast by transforming it from cylindrical to conical, reduce, where necessary, the areolar diameter and correct its position, symmetrize the breasts through a possible reduction of the larger one or using prostheses of different volumes that will be implanted, primarily in the retro-muscular area. From a technical point of view, the most difficult moment, where the quality of the final outcome of the operation is at stake, is given by the transformation of the mammary base from cylindrical to conical; this is carried out, after having dissected the lower mammary quadrants from the skin and muscle fascia,

by making incisions on the deep face of the mammary gland in order to extend it and thus widen its surface in order to transfer down, by the necessary centimeters, its inferior margin to the inframammary neo-sulcus. In this way, complete and adequate coverage of the prosthesis will be obtained, which will be used to correct hypotrophy, avoiding the risk of the double profile.

As mentioned, this is the crucial point of the operation, in our opinion; sometimes it is not possible to obtain a perfect correction by residing a flat lower pole (and not convex as desirable) or even by persisting the partial evidence of the old groove. If this condition is identified intraoperatively, we perform a lipofilling in order to correct or, at least, improve the condition. Obviously, lipofilling can also be performed at a later time if the defect appears later.

A series of clinical cases are presented with the description of the technique used.

2.4.10. Breast Surgery under Anesthesia with Pecs 1 and Pecs 2 Block

Alfio Scalisi, Maria Grazia Turco, Antonino Urpi, Flavio Trusso and Marco Gerardi, Italy

The evolution of anesthesia techniques, in recent years, have allowed the implementation of early mobilization and recovery protocols for patients undergoing mammoplasty and breast surgery, which was unthinkable until recently.

The gold standard is characterized by the block of the territory of the lateral thoracic and long thoracic nerve associated with light conscious sedation, this allows to obtain an analgesia of the mammary area, minimizing the amount of local anesthetics to be used, or avoiding narcosis in general, and allowing discharge on average within 12 h.

Infiltrating 20 mL per side Robivacaine 0.25% levobupivacaine 0.25%.

Our case series from 2016 to today concerns 803 aesthetic mammoplasty procedures: of which 575 are augmentation mammoplasties, 192 sole breast lifts, and 36 reductions. Of them, 64% are under the age of 36. Discharge within 12 h, the rest within 24 h of surgery.

This ultrasound-guided technique guarantees a good safety profile and reduced incidence of side effects, as well as good anesthetic comfort for the patient and the surgical team as well as analgesic comfort in the postoperative period to the point of allowing the patient to get up immediately.

2.4.11. Versatility of Diagon\Gel 4Two Implants in Aesthetic and Reconstructive Breast Surgery: A Personal Experience

Giuseppe Visconti, Italy

OBJECTIVE: Breast augmentation is one of the most performed procedures worldwide and in the US it represents the most performed cosmetic surgical procedure since 2014, with 329,914 patients operated on only in the US in 2018. Breast reconstruction with implants is also one of the most performed procedures worldwide, being breast cancer the most common cancer in females. In light of the above, breast implants are one of the most used alloplastic materials in the human body and this justifies the high number of different breast implants we have on the market. The aim of this paper is to report a personal experience with a subtype of breast implant, the Diagon\gel 4Two implants, in both cosmetic and reconstructive cases.

METHODS: Aesthetic and reconstructive breast surgeries with diagogel implant performed from January 2017 to December 2021 were retrospectively reviewed. Aesthetic cases included both primary and secondary breast augmentation and augmentation mastopexy. Reconstructive cases included both direct-to-implant and secondary cases. Cosmetic and reconstructive outcome analysis has been performed by the attending surgeon and 3 plastic surgeons blinded for the type of implant used, by analyzing preoperative and postoperative standardized pictures according to a Likert scale. The BREAST-Q data templates and scoring software, Q-score, were used to study patients' satisfaction.

DESCRIPTION and RESULTS: Diagon\gel 4Two is a subtype of silicone breast implant designed with two silicon gels different in cohesivity. The posterior portion of the implant is made with a softer gel, which favors a better implant shape adaptation to the thoracic

cage, whereas a more cohesive gel is present in the most anterior part of the implant with the aim to stabilize projection and favor internal support. Interestingly, the diagon/gel implants present among the longest D line (distance between the lower part of the implant and the maximal projection point) over all the other types of implant available in the market. This favors a creation of a more convex lower pole and a push up effect. It was found very advantageous in augmentation mastopexy, as this particular shape recruits more tissue; thus, allowing an easier use of the short-scar technique also in massive weight-loss patients. In reconstructive cases, it favors the creation of a more shaped breast, improving the appearance of natural results. Although diagon/gel 4Two implants are available in two different projection styles and bases (oval and round), a careful patient selection is required based on patients' physical features and expectations to provide shaped and natural results. No major complications such as infection and/or implant failure were experienced. No capsule contracture Baker type 3 or 4 were registered. Cosmetic and reconstructive outcome analysis was good to very good in the majority of the cases. Patients' satisfaction was high to very high. No implant-related complaints were registered.

CONCLUSIONS: Diagon/gel 4Two implants are subtypes of implants with peculiar implant dynamics related to the implant structure made of two gels with different cohesivity. In well selected patients, diagon/gel implants deliver shaped and natural results in both cosmetic and reconstructive cases with high surgeon and patients' satisfaction.

2.4.12. Fat Grafting in Breast Augmentation: "Lead or Extra Actor"?

Michele Riccio, Costanza Binci, Valentina Ceconato and Angelica Aquinati, Italy

OBJECTIVE: Lipofilling is an old, well-known and standardized technique described in the last century, that revolutionized plastic surgery. Fat graftings are frequently used for body contouring, in particular for breast remodeling with esthetic purposes. It is, nowadays, an increasingly useful filler in breast reconstructive surgery to correct/fill periprosthetic depressions in breast hybrid reconstruction. The adipose tissue is the "main actor" in autologous reconstructive and esthetic breast surgery, added to autologous flap reconstruction. Our study would demonstrate that lipofilling technique in breast reconstruction plays an important role not only as an ancillary surgical option to conventional strategies, but also as a valid alternative to autologous reconstruction bringing many benefits to the patients. Even if there is no ideal breast surgery for all seasons and all patients, adipose tissue allows us to tailor the best breast reconstruction to individual women.

METHODS: Our experience was achieved over a 10-year period by comparing several surgical reconstructive strategies (implants vs. hybrid vs. autologous). We explained how adipose tissue could improve esthetic outcomes in breast surgery in order to obtain symmetrical natural breasts. We enrolled women with an average age of 45 years and affected by breast cancer with similar biological features. We divided them into three groups. In the first group, 30 patients were treated only by breast implants, in the second group 30 patients received a hybrid reconstruction (implants plus fat graftings) and in the third last group 30 patients were reconstructed with autologous fat tissue. All patients above had received a mastectomy, before the reconstructive step which could be immediate or delayed.

DESCRIPTION and RESULTS: We analyzed the three study groups using modified Breast-Q. Nowadays, breast reconstruction must be tailored to each single case according to the patient's features (age, anthropometric properties and contralateral breast in terms of shape, volume, and projection). We also have to consider the type of breast cancer (histology, biology, grading, Ki-69, and pTNM). The adipose tissue is a valuable tool in breast plastic surgery. It represents an additional "weapon" to obtain the best results in both hybrid and autologous breast surgery.

CONCLUSIONS: Fat graftings are simple, versatile, reproducible and effective surgical options in breast augmentation. Adipose tissue plays a central role in both prosthetic and autologous breast surgery since several advantages obtained from its use are unquestioned.

2.4.13. Implant Replacement with Dual Plane Technique: One of Our Details

Pietro Lorenzetti, Italy

OBJECTIVE: Given the sheer numbers of women who have breast implants in place, the number of women presenting for reoperative breast surgery continues to increase. Revision breast augmentation surgery can be classified into three categories: related to the previous surgery, related to the soft tissues and related to the implant. As with any procedure, patients undergoing revision breast augmentation with implants must have realistic expectations. The key to selecting the best implant is understanding the woman's goal and it is absolutely imperative to have a detailed understanding of all previous breast surgeries. Pocket selection is a very important consideration. When revision surgery calls for the use of a shaped gel implant, a pocket change is mandatory to allow for a precise pocket to implant fit. We describe our experience performing implant replacement through subglandular to dual plane conversion or creation of a new partially subpectoral pocket on top of a previous subpectoral capsule.

METHODS: We performed 210 revision breast augmentations from September 2018 to September 2021. All patients had revisions such that their implants were relocated to a dual plane, with the superior two thirds or so of the implant located beneath the pectoralis major muscle and the inferior one third located subglandularly. Subglandular implants were converted to a dual plane and the inferior edge of the pectoralis major muscle is sutured to skin at or near the level of areola in order to stabilize the inferior edge of the muscle and close the previous subglandular space. Dual plane implants were relocated in a neopectoral pocket, defined as the pocket deep to the pectoralis major but superficial to the anterior capsule, which was left intact and sutured to posterior capsule and chest wall, obliterating the old capsular space. We performed implant replacement using textured shaped gel implants and polyurethane coated implants in case of Baker level II, III or IV contracture. When surgery was required on both the implant and the soft tissues, we revised the implant first and then tailored the soft tissues around the new device. No drains were used. Peri-operative management included antibiotic prophylaxis, pain management, and postoperative bra use.

DESCRIPTIONS and RESULTS: We report good outcomes performing revision breast augmentation surgery with dual plane relocation, correcting malposition, implant failure, rippling, palpability and soft tissue changes. The mean time follow up is 11 months. In total, 76 patients had replacement with polyurethane-coated implants. The complications rate we report (3.8%) is a little higher than we observe in primary breast augmentation due to an increased incidence of hematoma (8 patients). We did not observe any case of implant rupture, malposition or infection. All patients were assessed as having soft implants in the follow-up period.

CONCLUSIONS: We believe that the dual plane method of breast augmentation proves to be an effective technique for revision breast augmentation surgery, ensuring longer lasting results. This technique is effective to correct capsular contracture and preventing it also with the aid of polyurethane-coated implants. New pocket harvesting needs to be accurate and match the dimension of the shaped implant.

2.4.14. Lower Pole Expansion after Breast Augmentation with Implants

Avvedimento Stefano and Santorelli Adriano, Italy

INTRODUCTION: Postoperative increase in nipple to inframammary fold distance (N-IMF) after breast augmentation mammoplasty influences the cosmetic surgical outcome in the short- and long-term. Different factors such as breast type and morphology, implant characteristics and surgical technique are implicated in the postoperative variation in nipple to inframammary fold distance (N-IMF) after breast augmentation.

METHODS: To decrease the impact of confounding factors, we analyzed the post-operative variation in the N-IMF distance throughout 1 year in a group of patients with similar anatomical characteristics (Tuberous breast type I and II) treated with the same surgical technique (dual plane and glandular scoring) and similar implant characteristics

(textured anatomical implants). We undertook a retrospective review of 28 consecutive patients with bilateral type I and II tuberous breast deformity who underwent primary breast augmentation between April 2017 and May 2018 at our institution. Measurement of the N-IMF Distance (immediate post-op, 1, 6 and 12 months post-op) was undertaken. Postoperative measurements of the N-IMF distance were undertaken considering the scar location in relation to the new fold. We considered only the N-IMF distances obtained when the scar was situated precisely in the new IMF. All cases with scar migration above the IMF, implant dislocation and bottoming out were excluded from the analysis.

RESULTS: Of the 54 breasts analyzed, the immediate post-op-IMF distance was on average 2.43 cm longer than the preop IMF with a 99% confidence interval between 2.01 and 2.86 and SD of ± 1.22 . The mean difference between the preop N-IMF distance and after 1, 6 and 12 months was, respectively, 2.78 cm (SD, 1.56) (99% CI, 2.24–3.34), 3.08 cm (SD, 1.57) (99% CI, 2.53–3.64), and 3.36 (1.55) (99% CI, 2.82–3.91). Comparing immediate postoperative nipple to infra-mammary fold distance (N-IMF) to the 1, 6 and 12 months IMF values, an average of 4.23% (CI 1.3–7.16), 7.74% (CI 4.25–11.23) and 10.84% (CI 7.21–14.49) of skin length, was gained, respectively. According to implants' weight, subgroup analysis showed that implants > 400 g were associated with significantly higher N-IMF distance increase ($p < 0.05$) than implants < 400 g.

CONCLUSIONS: Our results showed a progressive expansion of the lower pole of the breast after augmentation, as evidenced by the increase in the inframammary fold distance at the 6- and 12-month measurements. This is combined with a substantial 4-layer closure to recreate the IMF and prevent bottoming out of the reconstruction. This aspect should be considered when planning the IMF incision and the new fold position.

2.4.15. Mammoplasty: How to Guide the Choice of Implants

Luca Cravero, Italy

OBJECTIVE: The awareness that, by inserting breast implants, we can determine the appearance of a cancer that would otherwise not be possible (Bia-Alcl), has determined, for the writer as well as for many surgeons, a change in the type of implants used in the last three years. Specifically, we stopped using macrot textured implants, which are more associated with Bia-Alcl and started with nanotextured/smooth implants, which have never been correlated with BIA-ALCL or, alternatively, to polyurethane foam (Microthane) coated implants, which have a negligible correlation with BIA-ALCL, or to microtextured implants, which have a much lower correlation with BIA-ALCL. The aim of this study is to analyze personal case studies over the three-year period 2019/2021, indicating which criteria allow the smooth implants to be chosen and which are the best choices in the event that smooth implants cannot be used.

MATERIAL and METHODS: In the three-year period 2019/2021, we performed 102 operations of mammoplasty, 42 patients with round smooth implants, 33 with anatomical micro-textured surface and 27 with anatomical polyurethane foam covered surface (Microthane).

The implant insertion plan was in 97% retromuscular and in 3% retrofascial.

The access was in 53% through the inframammary fold and in 47% through the areola.

The criteria on which the choice of implants was based were:

- Lifestyle of the patient. An accurate medical history, not only identifying the state of health, but also the work activity (manual or intellectual) and sports activities (type and frequency), as well as the reliability to follow the postoperative rules.
- Breast and chest anatomy. An accurate measurement of the chest was performed, classifying chest in normal, slender (prevalence of vertical diameters), and compact (prevalence of horizontal diameters). The mammary shape was classified as normal, tuberous and sagging breast.
- Breast tissues. An accurate evaluation and measurement of the breast tissue thickness was performed classifying normal, thin, thick and lax breast tissue.

- The expected achievable result. A simulation of achievable results was carried out and numerous photos of cases with results comparable to their own were presented in order to agree on the achievable result.
- Specifically:
- In patients with a normal chest conformation and normal breast tissue thickness, the choice has been smooth implants, while anatomical polyurethane implants have been utilized only for big implants.
- In patients with a normal chest conformation and thick breast tissue, the choice has been smooth implants, while anatomical implants have been utilized only if the patient clearly prefers an anatomical breast shape.
- In patients with a normal chest conformation and thin breast tissue it is preferable to use smooth implants because they less likely lead to wrinkle. However, for big implants, we choose the anatomical ones, because big round implants seem unnatural with thin coverage.
- In patients with normal chest conformation, with loose breast tissues, the choice has been smooth round implants only for little implants, instead we prefer anatomical polyurethane implants for medium or high volumes, because smooth implants have greater mobility, they often drift to sides (lateral slip) or down and they can stretch lower pole over time (bottoming out). Moreover, waterfall deformity (snoopy deformity), that is more frequent using anatomical polyurethane implants, is simpler to correct than bottoming out.
- In patients with normal chest conformation who perform intense sporting activity for habit or work, or who need to return to manual work quickly, the choice has been smooth round implants with moderate projection at the retrofascial site, for small implants and adequate breast tissue thickness. In all other cases, the anatomical polyurethane implant is chosen.
- In patients with slender or compact chest or tuberous breast our choice has been the anatomical implant because shaped anatomical implants allow different measures in width and height, providing optimal aesthetic results in these kinds of patients. We do not utilize round smooth implants with lipofilling of the superior pole or lateral side because often fat is not easily available enough, very often one session is not enough, the risk of contamination/infection of the prosthesis increases and costs are higher.

RESULTS: All 102 patients had a follow up from three months to three years. In total, 33 patients underwent surgery with anatomical micro-textured implants. Having found a significantly higher incidence of implant complications (3 rotations and 3 capsular contractures of third degree, 18% complication rate), compared with smooth implants (1 capsular contracture, 2 dislocation, 7% complication rate) or polyurethane foam implants (2 dislocation, 7% complication rate) we stopped using it. A total of 42 patients underwent surgery with round smooth implants, 22 were augmentation mammoplasty, 2 implants substitution, 9 periareolar mastopexy, 2 vertical mastopexy. In total, 27 patients underwent surgery with anatomical polyurethane implants, 11 were augmentation mammoplasty, 6 periareolar mastopexy, 5 implants substitution and 3 vertical mastopexy. The average age of the patients was 42 years, with a significant difference between patients with smooth implants (38 year) and with polyurethane implants (47 year).

CONCLUSIONS: The BIA-ALCL has led many surgeons to use exclusively or predominantly smooth implants. Ideally the perfect implant is one that gives the lowest complication rate, the highest patient satisfaction (in terms of volume, shape, post-operative pain and resumption of work/sport activity) and that allows the greatest possible speed in the operating room. In our experience, the smooth implant is currently the first choice because it is not associated with BIA-ALCL, has a low short-term complication rate and is the quickest to be introduced in the operating room, but on condition that certain physical requirements are carefully respected, and certain post-operative behavioral rules are observed in terms of resumption of sporting/working activity.

2.4.16. Breast Augmentation with Smooth and Opaque Implants. Surgical Strategy and Technique to Offer the Best Quality Result

Paolo Vittorini, Italy

After more than 50 years from the first breast implant, we are still looking for the ideal breast prosthesis with the development of research that indicates which is the best material and the best prosthetic coating surface, to further increase the quality of the aesthetic result in terms of safety, duration and reduction/absence of complications.

Even today, however, we have to deal with the undesirable effects of breast implants which in certain conditions lead us to re-intervene with the replacement of the prostheses and the correction of the breast profile through secondary breast augmentation, certainly more delicate intervention than the simple primary breast augmentation.

Based on the latest scientific findings in the literature on the role played by bacterial biofilm as the main cause of periprosthetic capsular contraction and on the current absence of cases of fearful complications such as the formation of double capsules, late seroma and BIA-ALCL on smooth prostheses, since January 2016 we have decided to use the latest generation smooth surface silicone implants as the first surgical choice in both primary and secondary breast augmentation. From October 2020 we started using the latest generation Perle smooth prostheses. The author presents his own surgical series of 6 years with the use of smooth surface prostheses and 12 months with the use of Perle smooth prostheses. It will range from the clinical classification of patients suffering from glandular hypoplasia/hypotrophy of various degrees, to the surgical strategies and techniques to be practiced (surgical planning, details of the operative technique, choice of the type and volume of prostheses, tips, tricks and traps to avoid or minimize conditions such as lateral slip and bottoming out).

2.4.17. Subfascial Breast Augmentation beyond Myths or Realities: Evidence and Indications

Mauro Rana, Fabrizio Chirico and Luigi Rugge, Italy

OBJECTIVE: One of the most popular surgical cosmetic procedures, breast augmentation, has enjoyed large acceptance in the last few decades as a result of factors such as development of modern types of implants and refinement of surgical techniques. Nowadays, the most commonly employed pocket planes are subglandular, submuscular and subfascial. Although some studies have reported a satisfactory outcome with the subfascial technique, the influence of the pectoral fascia and outcome still is controversial compared to the other techniques. Therefore, we present our experience based on senior author's extensive experience with augmentation mastoplasty using the subfascial plane, aimed to investigate paramount aspects of surgical technique, benefits, resulting outcomes and radiological evidence of subfascial pocket features.

METHODS: This study included 498 women who received breast implants in the subfascial plane between 2009 and 2021. All surgical procedures were approached by means of an inframammary approach. Radiological imaging was evaluated searching for the pectorals fascia through five independent, blind surgeons and radiologists at magnetic resonance imaging (MRI) examinations. Mean follow-up time was 12 months.

DESCRIPTIONS and RESULTS: Excellent coverage of the implant, natural shape, and mobility were achieved in all cases. In no cases were seromas, edema, infections or rippling in the upper half observed. In the postoperative period, the patients experienced fast recovery. At MRI examination, pectorals fascia was identified as a thin hypo-intense linear structure surrounding the breast implant on transverse images and corresponding to the deep layer of the fascia itself. At radiological imaging, the implant was demonstrated to be placed in the subfascial plane in 99% of the cases, confirmed by an image enhancing the fascia covering the implant.

CONCLUSIONS: With breast augmentation procedures, there is an ongoing search for better results, with dissatisfaction promoting research and testing of new methods. This search has led us to place breast implants in a subfascial plane for anatomic and

surgical reasons. We assess that the subfascial plane for breast augmentation had many advantages because it combines the potential benefits of the subglandular approach, such as rapid recovery, satisfactory breast shape, lower fibrous capsular contracture, more accurate control of both breast shape and inframammary fold position, lack of distortion with pectoralis muscle contraction and minimizing visualization of the edges of the implant, with the improvements that may be achieved by using the subpectoral approach having more tissue available to cover the implant's upper pole. At the radiological evaluation through MRI, the characteristics of the implant pocket and the identification of the fascia as a real anatomical structure on MRI was carried out, with the correct anatomical plane identification in almost all of the cases. For this purpose, the identification of the subfascial pocket was possible due to the clarity of the fascial contour. Integration of personal experience and scientific data is essential for the success of any surgeries, mainly in the aesthetic field, which often relies on personal opinions. Thus, based on the *aforementioned evidence*, we could affirm that placing the pocket in a subfascial plane is an effective and viable approach in breast augmentation surgery.

2.4.18. The Versatility of the Round Ergonomic Implants for Breast Augmentation

Daniele Cervelli, Italy

OBJECTIVE: To show my experience with the use of the round ergonomic implants for breast augmentation.

METHODS: Breast type is often related to the body type. The choice of shape, volume and position of the implant should be related to the body type of the patient in order to achieve natural and smart results. Ergonomic implants have an innovative soft silicone gel, that adapts to the position of the patient for a more pleasant look and feel. In the last three years I used these implants for all my breast aesthetic procedures, ranging from simple breast augmentation to more complex mastopexis with implants.

DESCRIPTIONS and RESULTS: The most important feature of the ergonomic implants is the low cohesive silicone gel that follows patient's position, it means that the breast has a round shape when the patient lays down and an anatomical shape when she stands. This is useful for sportive patients who desire a natural breast shape and who are not afraid about implant rotation in the case of submuscular position. The surface of these implants is smooth or nanotextured; this is another advantage, as the risk of BIA-ALCL is statistically lower than with macrot textured implants. As smooth or nanotextured implants, capsular contraction rate should be higher than with textured ones, but to date, I did not experience a significant difference.

CONCLUSIONS: Ergonomic implants have a round shape but an anatomical appearance with the patient standing and they are highly versatile with every kind of breast and body type. We have no concerns about risk of rotation, less concerns about BIA-ALCL than with macro-textured implants, we did not experience higher rate of capsular contracture. They seem to be close to the ideal implants.

2.4.19. Implants Covered in Polyurethane Foam in Breast Augmentation. When to Choose Them and When Not

Valerio Badiali, Italy

Breast augmentation has been the most requested aesthetic surgery for many years. Although the request keeps on growing, using breast implants covered in polyurethane foam is a choice that still scares a lot of surgeons. In fact, they prefer to use this type of implant only in the case of capsular contracture. The main cause of this concern is, above all, the self-fixing peculiarity of the implants themselves.

The aim of this presentation is to explain in which cases this implant is an essential ally and in which ones it should be avoided.

2.4.20. Ergonomic Implants in Breast Surgery: Our Experience

Antonello Mele, Italy

OBJECTIVE: The result in aesthetic breast surgery is the consequence of multifactorial choices. Considering the patient's physical characteristics, desires and life habits, are mandatory. Obtaining a high level of satisfaction after this type of surgery is consequent to the achievement of an aesthetically pleasing result, both in static and dynamic, as well as to the touch. We present our experience with the ergonomic implants, alongside an examination of the cases in which it is or is not appropriate to use them.

METHODS: For about five years, we have combined the use of traditional round and anatomical implants with ergonomic gel and nanotextured surface devices. Today, also considering the problems that emerged with macrotexturization, the ergonomic implants represent our first choice. Correct positioning with respect to the chest and with respect to the areola–nipple complex is always essential. The covering tissues are important in choosing the positioning plan in order to make the implant less visible and palpable. When the pinch test is positive, we always prefer a subfascial positioning.

DESCRIPTION and RESULTS: Our clinical cases with primary and secondary breast augmentation and additive mastopexy with ergonomic implants were analyzed by examining the results obtained, the level of patient satisfaction and the type and quantity of complications.

CONCLUSIONS: For years, there have been discussions on the possibility of using round and anatomical implants. We believe that the correct positioning and the right choice of dimensions, diameters and projections, can give aesthetically pleasing results both with round and anatomical prostheses. However, the use of ergonomic implants has advantages linked to the ergonomic gel and nanotexturization: greater simplicity in preoperative measurements, greater ease in introduction with smaller scars, greater “fullness” of the upper pole compared to the anatomical ones and greater filling of the lower one compared to the round, remarkable softness to the touch and naturalness in the movements, with a consequent very high level of satisfaction. However, there are some critical issues that should be considered in the choice of implants, related to the nanotextured surface and the important stretching of the lower pole. For this reason, in order to take advantage of the characteristics of ergonomic implants, the use of our decision-making protocol has allowed us to minimize complications and maximize results.

2.4.21. Anaplastic Large Cell Lymphoma (ALCL) and Breast Implants: The Breast Unit Experience at Istituto Nazionale dei Tumori of Milan

Chiara Listorti, Pierfrancesco Cadenelli and Secondo Folli, Italy

OBJECTIVE: We report our experience on Anaplastic Large Cell Lymphoma (ALCL) associated with breast implants, with particular attention to patients with breast implants after breast augmentation for cosmetic purposes.

METHODS: Between 2016 and 2021, 4 cases of ALCL associated with breast implants were observed at our Breast Unit, Istituto Nazionale dei Tumori. At presentation, 2 patients had breast reconstruction after mastectomy while the others had aesthetic breast augmentation. For these 2 patients, we report time of symptoms onset from aesthetic surgery, prosthesis characteristics, diagnostic and staging preoperative workup, surgical treatment, postoperative staging of the disease and multidisciplinary evaluation for adjuvant treatments.

DESCRIPTIONS and RESULTS: Patient #1 was a 26-year-old woman. In 2014, she had aesthetic breast augmentation with textured implants. In January 2020, she developed a large fluid collection surrounding the right breast implant. The cold seroma was aspirated for cytopathology examination with diagnosis of ALCL. Contrast-enhanced breast MRI showed peri-prosthetic seroma on the right side with no evidence of solid mass. Preoperative PET/CT did not show lymph nodal involvement nor distant metastasis. In March 2020, the patient underwent surgery with bilateral prostheses removal and total capsulectomy. Implants were intact and removed with the surrounding fibrous capsule

that was completely excised. Histocytology examination confirmed the presence of BI-ALCL without capsular invasion, the disease was localized only in peri-prosthetic fluid. Stage of the disease was confirmed IA pT1N0M0. Multidisciplinary discussion did not indicate the need for adjuvant therapies, whereas physical and radiographic disease surveillance was recommended. Patient #2 was a 35-year-old woman. In 2017 she had bilateral dual plane breast augmentation using Allergan TSM 330 g in 2017. In October 2021, breast ultrasound and contrast-enhanced MRI showed a large seroma on the left side with no evidence of implant rupture. In November 2021, cytology examination of the fluid collection demonstrated large CD30 positive and ALK negative cells establishing diagnosis of ALCL that was confirmed by molecular tests. Preoperative PET/CT did not find systemic localization of the disease. In January 2022, the patient underwent bilateral prostheses removal and total capsulectomy. Histocytology examination found localization of breast implant-associated anaplastic large-cell lymphoma on the left side, the disease was localized in the fibrin deposits at the luminal side of the implant capsule with clear surgical margins of resection while on the right side there was chronic inflammation. Stage of the disease was confirmed IA pT1N0M0. Adjuvant therapies were not considered necessary at multidisciplinary evaluation. Disease surveillance with physical and radiographic exams was recommended.

CONCLUSIONS: Breast implant-associated Anaplastic Large Cell Lymphoma is a rare disease although it might be not so infrequent in clinical practice. Our experience shows a relatively short interval between cosmetic implantation with a textured surface breast implant and ALCL occurrence. Timely diagnosis is mandatory. Complete resection of disease is associated with excellent long-term disease-free survival avoiding the need for further adjuvant treatments.

2.4.22. Retropectoral Breast Augmentation with Round Implant: Selection Criteria Adriano Santorelli, Italy

OBJECTIVE: In the last three years, the world of breast augmentation has totally changed due to the enormous quantity of implants with different characteristics. The objective of this study is to clarify the selection criteria of round implants in the different types of patients

METHODS: We analyze a cohort of patients, with different anatomical characteristics (measurements, pinch test, pregnancy, BMI) that underwent a breast augmentation, and their evolution over time

DESCRIPTIONS and RESULTS: Nowadays, when we talk about a round implant we are talking about something totally generic. Different characteristics, in terms of texture, gel cohesivity and weight, will have a diverse result and require different approaches and planning by the surgeon

CONCLUSIONS: We strongly believe that the modern approach to the breast augmentation needs a deep knowledge of the different types of implants on the market by the surgeon, and in accordance with the patient characteristics, we should select the ideal implant for each one.

2.5. Body Contouring. Abdomen and Surroundings between Surgery and Technology

2.5.1. 4-HD Liposuction for Men and Women after 50 Years Old, How to Optimize?

Aurélie Fabié Boulard, France

In 2022, women and men want a slim and young face and body all over the world. The goals in Aesthetic Surgery, Medicine and Devices are:

- To obtain results, respecting the natural look.
- To optimize body sculpting, skin tightening and beautification.
- It is part of a hyper-competitive socio-professional dimension.
- It is about maintaining a modern and dynamic image in the professional world.

We explain optimizing our global and French touch approach in Esthetic clinic and spa.

2.5.2. Is It Time to Rethink Our Approach to DVT Prevention in Abdominoplasty?

Fabian Cortinas, Argentina

Abdominoplasty is, among our aesthetic procedures, the one with highest incidence of DVT and PE. Prevention of this life-threatening condition includes the use of LWMH guided by risk stratification scales. This lecture is about a critical view of our approach and provides other alternatives or compliments for DVT prevention.

2.5.3. Circumferential Abdominoplasty with Adipose Self-Prosthesis and Lipofilling: Three-Dimensional Body Sculpture

Paolo Vittorini, Italy

Abdomen and buttock flaccidity is common in women and in men. It can appear after weight loss following restrictive dietary regimes, bariatric surgery treatments for obesity, or simply be a consequence of the natural aging processes that determine the generalized adipose tissue loss with consequent development of dysmorphia.

The weight loss is responsible for tissue redundancy, for the abdominal muscle diastasis and the depleted adipose volumes in the gluteal area.

Patients undergo surgical treatment preferably when they have reached the “plateau” of weight loss, to ensure greater temporal stability of the results. This usually occurs about a year after the bariatric surgery procedure. The body contouring procedures for the correction of dysmorphia of the central and posterior–inferior portion of the trunk and buttocks are represented by circumferential torsoplasty associated with buttock lifting. In the morphofunctional evaluation of these body districts, it is essential to remember that the human body is a three-dimensional structure and must be treated as such.

The gluteal area is shaped to recreate its characteristic roundness, projection and sinuosity with the combination of buttock lifting and self-prosthesis fat.

The lower third profile and volumes of the buttocks are treated with adipose grafts (Macrofat and Microfat) using the lipofilling procedure. Finally, liposculpture of the border areas (trochanters and hips) is performed to redraw the lines of the body profile.

Timing, preoperative and intraoperative surgical planning will be illustrated together with the technique details for aesthetic and functional restoration of the trunk.

The author presents his own surgical cases (1885 abdominoplasty of which 263 circumferential) from the last 12 years of activity in body contouring surgery and the related results.

2.5.4. Abdominoplasty: Surgical Technique Details for Particular Abdominal Issues

Stefano Marianelli, Italy

OBJECTIVE: The aim of this work is to assess the many aesthetic issues of the abdomen with related available corrective surgical techniques which can be carried out during abdominoplasty. The three epi-meso-hypogastric regions are assessed, highlighting the need to adopt specific techniques for each area in order to obtain a more complete result without resorting to corrective action in the future.

METHODS: The authors assess the epigastrium, proposing surgical techniques for the treatment of supra-umbilical adipose cutaneous fold or for periumbilical laxity. They subsequently analyze the diastasis of rectus muscles with possible presence of median hernias which need specific muscle-aponeurotic plication techniques. Finally, the authors assess the pubic-ptosis issues proposing a personal classification with related corrective techniques.

DESCRIPTIONS and RESULTS: The treatment of the epigastric adipose cutaneous fold requires a superficial liposculpture associated with releasing incisions of the deep fascia (Scarpa’s Fascia) in order to obtain better tissue redistribution. Rectus muscles diastasis associated with median hernias require accurate isolation of the hernial gate, the resection or hollowing of the pre-hernia lipoma, followed by a three-layer muscle-aponeurotic plication with non-resorbable materials (Nylon 2/0) Finally, the authors propose a separation of pubic ptosis in two large groups: The pseudo pubic-ptosis and true pubic-ptosis. The

first can be resolved with simple abdominoplasty, the second one requires an anchoring technique of the pubic deep tissue directly to the rectus muscles fascia with non-resorbable sutures (Nylon 2/0).

CONCLUSIONS: Abdominoplasty is a procedure which requires particular attention to detail, especially in relation to the issues of the various anatomical regions. Indeed, the use of specific surgical techniques for each region allows us to achieve a more complete final aesthetic result in order to reduce the percentage of future “completion retouches”.

2.5.5. Diastasis of Recti Abdominis Muscle: A Comprehensive Classification toward Cosmetic or Functional Correction

Alessio Caggiati and Stefania Tenna, Italy

OBJECTIVE: Diastasis of Recti Abdominis Muscle (DRA) is a common condition affecting almost 30% of women after pregnancy. It is described as a separation of the rectus abdominis (RA) muscles along the linea alba due to muscular laxity. It may present with different degrees and a variable amount of redundant skin and subcutaneous tissue, which need to be excised. The authors introduce a clinical classification to discriminate between functional and cosmetic procedures, and to manage surgical strategy.

METHODS: The classification considers two parameters: the width between RA muscles and the linea alba continence. The first measurement is clinically achieved by a caliper or a ruler and confirmed at diagnostic imaging; a protrusion of abdominal mass during muscles contraction indicates a linea alba incontinence. The classification thus includes four major groups according to RA width (0–2.5 cm; 2.5–4 cm; 4–8 cm; >8 cm) plus two subgroups (A: with linea alba protrusion; B: without protrusion). Surgical strategy starts from group 3 (RA width > 4 cm) unless patients belong to subgroup A.

DESCRIPTION and RESULTS: Seventy-two consecutive cases have been evaluated according to this classification. In total, 8 patients belong to group 1: respectively, 2-1A and 6-1B; 23 were classified in group 2: 19 as 2A and 4 as 2B; 34 were from group 3 and 7 group 4. Surgical correction was achieved by RA musculoaponeurotic plication combining non-absorbable to absorbable sutures, eventually reinforcing the most severe degree with dermal graft or synthetic mesh. Different patterns of abdominoplasty have been used to correct skin and subcutaneous tissue redundancy. Measurements on pre- and postoperative pictures are presented with follow up ranging from 1 to 7 years.

CONCLUSIONS: Diagnosis and treatment of DRA need to clear up functional and cosmetic procedures so to reach uniformity of management. This clinical classification easily identifies those cases, which can be covered by public health or insurance companies.

2.5.6. Unconventional Abdominoplasty

Claudio Bernardi, Italy

INTRODUCTION: With the term unconventional abdominoplasty, the author means demolpectomies whose execution has a non-routine surgical approach and that may require a greater level of attention by the surgeon. Reverse abdominoplasty can be included in this list and all the secondary abdominoplasties or the corrective ones in the presence of scars; then, we have those performed in obese patients or after post bariatric surgery, that we intentionally do not want to talk about in this presentation.

SURGICAL TECHNIQUE: In the case of correction of asymmetries and irregularities of previous incisions, it is of great help to have orthostatic reference lines, such as the midline and the horizontal one, which we generally place at 7–9 cm from the vaginal fornix. If scars from previous operations in the abdominal cavity are present, we undermine the flap as little as possible, to ensure a good vascular supply to it. In reverse abdominoplasty we place the scar in the mammary crease, joining them in the center with an arched line pointing downwards. Apart from the direction of the flap which occurs upwards, quilting sutures according to Baroudi are always used, as in traditional abdominoplasty. Finally, anchoring sutures are performed on the aponeurosis, but not on the mammary crease.

DISCUSSION: In secondary abdominoplasty we have a safer abdominal autonomized flap, but on the other hand we are dealing with less elastic tissues because they are fibrotic after scarring. The author illustrates the basic technique and some of his personal modifications that he currently uses in his clinical practice.

2.5.7. Evolution of S.A.F.E-Lipoabdominoplasty: Our Personal Approach to the Umbilical Region and Optimization of Results

Alessandro Gallo, Italy

OBJECTIVE: The purpose of this report is the presentation of our experience in Lipoabdominoplasty, the result of the fusion of surgical details from different techniques, personal and from various authors, with a particular focus on the reconstruction of the umbilical region.

METHODS: The care of the project to ensure the correct scar height and avoid the appearance of dog ears; the application of S.A.F.E.-liposuction (Simeon Wall) in the areas described by Lelouarn; the approach to the abdominal wall according to Lelouarn and Saldanha; our personal technique in repositioning of the navel, in order to recreate the umbilical region; the suturing technique to secure the scar at the desired level, are some of the aspects of our personal approach.

DESCRIPTIONS and RESULTS: Our study refers to patients who have undergone S.A.F.E-lipoabdominoplasty from 2016 to today; the postoperative results were examined in terms of patient satisfaction and analysis of postoperative complications.

CONCLUSIONS: The fusion of elements from multiple techniques has allowed in our experience an optimization of results and a significant reduction in risks. In particular, our personal approach to the reconstruction of the umbilical region allows to obtain a more natural and hidden umbilical scar, with considerable patient satisfaction.

2.5.8. Abdominoplasty

Domenico Riitano, Italy

AIM: The aim is to reduce operation time and to have more precision in positioning the scar.

METHOD: The design of the surgical incision takes place before surgery or on the operating table after asepsis and the preparation of the operating area or in more complex cases, the day before in the medical office.

DESCRIPTIONS and RESULTS: Once the incision marking is completed, the incision follows, always leaving some subcutaneous adipose tissue in the suprapubic area; once the tissue has been removed within the perimeter of the marking, most of the straight mm and the abdominal wall will be exposed, this will be joined together with a nylon suture. It will then be necessary to the area between the navel and the xiphoid process, the work of the aid that keeps the small flap suspended. The suture will then be a simple juxtaposition of the upper and lower edges. Importance is then given to the details of the new abdominal wall on the removal of adipose tissue, incisions and with V-shaped omphaloplasty.

CONCLUSIONS: In contrast to a somewhat slow learning curve, the advantages that are then obtained in speed, precision and costs, makes this technique absolutely valid and can also be implemented in interventions combined with lifting of the thighs and torsoplasty!

2.5.9. Circumferential Body Lift, How to Further Improve the Result?

Pietro Lorenzetti, Italy

OBJECTIVE: Body contouring surgery has been shown to have positive benefits, impacting wellbeing, function and quality of life. The requirements and demands for skin-redraping techniques are continually increasing similarly with the success and increasing number of bariatric procedures. The circumferential lower truncal dermatolipectomy (lower body lift) presents an extremely effective procedure for body rejuvenation and body contouring. A single stage surgery allows to correct skin redundancy of abdominal, flanks,

hips, and buttocks regions, improve gluteal ptosis and in general lower truncal shape. Various procedures can be associated to improve overall body contour. Liposuction can be used as an adjuvant procedure to reduce surplus of adipose tissue in the back or upper flank region, a gluteoplasty with implants can improve gluteal ptosis, up to procedures involving other anatomical areas in the context of combined plastic surgery. As the procedure is long and is associated with significant complications, greater accuracy is required concerning preoperative assessment of patients, selected BMI ranges and preoperative risk evaluation. The aim of this study was to expose our experience performing circumferential body lift, illustrating patients' indications and contraindications, surgical technique, peri-operative management, outcomes and complications.

METHODS: We performed 200 circumferential body lifts from September 2018 to September 2021. Patient selection includes assessment of medical history, physical examination supported by appropriated imaging and diagnostic tests, a stable weight for at least 6 months preoperatively and smoking habits. Surgery was performed in two steps positioning in the prone position first, then supine. Initially the dissection was conducted in a suprafascial plane in order to preserve most of lymphatic circulation. In 63 cases liposuction was combined with anterior or posterior resection or both, while in 47 cases a gluteoplasty with implants was performed for gluteal reshaping. Association with multiple different procedures was conducted in 65 cases. Peri-operative management includes nutritional supplementation, antibiotic prophylaxis, thrombo-prophylaxis, foley catheter, drains and postoperative dressings use.

DESCRIPTIONS and RESULTS: Patient age ranged from 27 to 65. The mean BMI was 27 and the mean operative time was 2.5 h and. Every patient was discharged without drains and the average hospital length was 3 days. Of 200 patients included in this study, 120 were followed up for 6 months and 80 were followed up for 2 years. Good aesthetic outcomes and patient satisfaction were obtained in all cases. We obtained best results and higher patient satisfaction when gluteoplasty was associated. Complication rate was 35%, wound dehiscence was the most common observed, particularly in the intergluteal cleft region, while rates of hematoma and seroma were lower. No skin necrosis and infection were observed as well as higher complications such as thromboembolism.

CONCLUSIONS: Lower body lift is a very effective and reliable method to improve overall body and gluteal shape. In qualified structures and with trained personnel, the lower body lift can be routinely performed as a safe procedure, with reduced operating time and, consequently, fewer complications. Moreover, the association with other procedures, for selected patients, allows to maximize the results in a single surgical time.

2.5.10. Push Risk away Technique for High Definition Abdominoplasty

Vincenzo Colabianchi and Matteo Giovannini, Bologna, Italy

OBJECTIVES: Abdominoplasty is an intervention that affects different regions and involves multiple surgical aspects, especially vascular and nervous; we have tried to identify those that could be risk factors and hypothesized a series of corrective measures.

MATERIALS and METHODS: Our complete series must examine a group, which we could define today as "control group", connected to the "reverse" abdominoplasty which counts 325 patients (171 F; 154 M). Considering the complication rate of this study attributable to seroma (3.9%), dehiscence (4.6%), liponecrosis (4.8%), dysesthesia (8.3%), superficial edema (3.4%), hemorrhage (3.2%), and skin necrosis (1.4%), let us start today by evaluating the new changes made. The complete procedure evaluated in the last year of our activity was performed on 47 patients (39 F; 8 M).

DESCRIPTION and RESULTS: The criteria applied in the technique that we have called PUSH RISK, clearly "away", are summarized in this acronym in which the first word defines the vascular and nervous criticalities of the procedure and in particular P identifies the Pubic region, U the Umbilical one, S the Spine (anterior superior iliac), H the Hypochondrium, all sites involved in the intervention itself. RISK, similarly, allows us to define the four steps that we have implemented to minimize the weight of complications

and in particular: R for Reverse, I for Inner hemolymphostatic suture, S for Suction of the hypochondria, K for stitch K type on the diastasis of the rectus muscles. The attention paid to the management of these areas has allowed us to minimize the surgical impact improving the aesthetic results, which are really valuable. In percentage terms, we have reported only dehiscence (2.1%), persistent dysesthesia (4.2%) and skin necrosis (2.1%). There have been no documented cases of seroma, liponecrosis, persistent soft tissue edema, hemorrhages and umbilical necrosis.

CONCLUSIONS: Although still at the beginning, we have recognized a clear post-operative improvement in terms of comfort and reduction in complications. The study is still in progress to provide a greater experience, but the results currently achieved encourage us to continue.

2.5.11. Lipoabdominoplasty with Vibration and Laser: A Combination of Technologies for a Better Body Contouring

Daniele Bollero, Italy

INTRODUCTION: In recent years, the demand for aesthetic and functional improvement of the trunk has increased significantly. It starts from requests for correction of diastasis of the rectus muscles and wall lacerations up to large liposuctions.

MATERIALS and METHODS: Lipoabdominoplasty, thanks to modern techniques, has become a proposed solution because it allows to both approach the wall and the removal of excess skin and fat. Technologies, as well as techniques, have increased and improved results and performance. In my presentation, I will illustrate my choice and my experience with vibroliposuction and laser-assisted liposuction with particular attention to practical details, direct experiences and clinical cases.

RESULTS: Underlining that every technology has its own learning curve and training has to be set on one's individual experience, vibroliposuction has allowed significant liposuction in terms of the amount of adipose tissue removed and areas involved with little invasiveness while laserlipolysis has allowed a good tissue retraction in the same liposuctions.

CONCLUSIONS: On the one hand, the introduction of technologies has allowed better results with low incidence of complications, on the other it helps in extreme cases to achieve great results.

2.5.12. Remodeling of the Abdominal Region by Combination of Two Latest Generation of Energy-Based Devices: Ultrasonic Lipoemulsion and the Plasma Argon System

Bruno Bovani, Italy

INTRODUCTION: In the last years, the demand for correction of excess volume together with skin laxity for the abdominal district have been increasing. All this corresponds with a lesser willingness of patients to undergo more invasive surgery, looking for the most advanced technological solutions that provide a shorter down time than in the past.

MATERIALS and METHODS: After a long experience with only the ultrasound lipoemulsion system, in the last three years I have combined the simultaneous use of tissue toning by use of a device that produces plasma thanks to the excitation induced by argon gas. This interesting synergy has made it possible to greatly enhance the already particularly positive effects of the ultrasonic lipoemulsion, especially in the cases of marked skin laxity that before would have been corrected only with traditional surgery.

RESULTS: In the case series that will be presented, the settling times of the tissues subjected to the synergy between these two energy-based devices proved to be quite long, as the triggered process consists of a remodeling due to the regeneration of elastic fibers and collagen.

CONCLUSIONS: The results obtained from the combination of these two methodologies as well as outpatient treatment with only conscious sedation, thus without an important post-operative course, confirm that they represent today one of the most advanced solutions for the correction of the abdominal area.

2.5.13. High-Tech Medical Procedures from Body Tite to Cryolipolysis Alvaro Pacifici, Italy

INTRODUCTION: Fat and body contouring represent a very current problem for women, but is far from being a real novelty. In fact, already in ancient Egypt, the culture of the perfect physique was very widespread, especially among women of high social rank. The real revolution of recent years lies in the continuous evolution of non-invasive high-tech medical procedures and in the greater involvement of the male sex.

MATERIALS and METHODS: The desire to permanently get rid of overabundant adipose tissue is growing in the minds of Italians. Fat elimination can be carried out using two different basic techniques: high-tech minimally invasive surgery (high-tech body tite lipoaspiration) and high-tech medicine (cryolipolysis).

Liposuction with Bodytite (radiofrequency liposuction) is a cosmetic surgery that eliminates excess fat (localized adipose accumulations) even in cases of skin laxity or inelastic skin. Liposuction can give variable results in subjects with inelastic skin to adapt to the new post-surgery volumes: liposuction with bodytite, thanks to the effect of medical radiofrequency, delicately dissolves the fat, but at the same time redraws the contours and compacts the skin, with a skin tightening effect against skin laxity. Cryolipolysis is a safe and effective non-surgical procedure in the treatment of subcutaneous fat. It is a methodology approved by the FDA of the United States and certified by one of the main American Association of Dermatologists and Aesthetic Surgeons (American Academy of Cosmetic Surgery) and since 2008, the year of the first studies in this regard, the effectiveness of its use has been demonstrated. Controlled cold in determining fat apoptosis. Since fat is more sensitive to cold than other organs or systems, its selective damage through low temperatures is exploited for the elimination of superfluous localized fat with relative saving of the functionality of the integumentary system, muscles, vessels and nerves. The elimination of fat cells occurs gradually through physiological mechanisms, minimizing the risk of residual skin laxity.

RESULTS: Radio Frequency Assisted Liposuction (RFAL) technology is what differentiates BodyTite™ from conventional liposuction techniques. Radio frequency assisted liposuction is a quick procedure that produces excellent results. In addition to providing effective body fat removal, BodyTite™ offers the added benefit of firming loose skin. The BodyTite™ system includes a bipolar radiofrequency handpiece and an RFAL computer device. Cryolipolysis is a brand-new non-invasive treatment to eliminate excess fat by freezing the adipose tissue by cooling it to a temperature close to 0° for a period of between 30 and 60 min which leads to the destruction of fat cells. Cryolipolysis, a term deriving from the Greek kryos = cold, triggers the process of apoptosis, a process that causes death of the adipocytes, and no damage to the surrounding tissues or blood vessels of the treated area.

CONCLUSIONS: The treatment procedure begins by making a small incision in which a probe is placed. The probe provides the radiofrequency energy needed to burn fat, which causes the area to become leaner and beautifully sculpted. Liquefied fat is aspirated using a power-assisted liposuction device. There is no possibility of excessive heating of the fat and/or the dermis because all parameters are controlled in a closed loop system. Due to the diameter of the incisions, the discomfort is minimal. The cryolipolysis treatment allows to reduce the volume of unwanted fat at each session without any surgery and gives more important results in the areas rich in fat. The cryolipolysis treatment is comfortable and lasts about an hour, during which the patient can safely listen to music, see a film or documentary, read a book or magazine or work on their laptop. Since the adiposities do not reform, the result is permanent if obviously combined with a healthy lifestyle and correct nutrition.

2.5.14. Abdomen and Thighs Contouring Use and Advantages of ArgoPlasma-Driven Radiofrequency to Improve Skin Redraping

Sandro Rizzato, Cristina Rogato., Alessandro Casadei, Italy

INTRODUCTION: The tumescent liposuction provides debulking of body areas with excess of subcutaneous fat and concurrent skin laxity, but it offers mild skin tightening (approximately 10%) as a result of a simple deflation effect on the skin envelope and non-thermal, but mechanical, inflammation process that involves fibrocollagenous matrix (new blood vessels, generation of fibroblasts, new collagen formation). The application of plasma/radiofrequency (RF) energy to the subcutaneous layer is able to obtain better skin shrinkage by targeting the fibroseptal network (FSN): RF energy heats the collagen very quickly up to 85 °C causing reduction in fiber length of 40–50%. Thermal stimulation of the FSN by RF heating has been shown to cause skin surface contraction of up to 45%.

OBJECTIVE: The aim of this retrospective work is to evaluate clinical outcomes for patients who have undergone liposuction with who the ArgoPlasma-Driven Radiofrequency was used as a tool for improving skin tightening.

METHODS: This work includes female patients with focal lipodystrophy with mild to moderate soft tissue laxity in the abdomen and thighs. An ultrasound-assisted liposuction (VASER, Solta Medical, Bowthell, WA, USA) with infusion ratio 1:1 was employed in all patients followed by subdermal use of ArgoPlasma-Driven Radiofrequency (ArgoPlasma, Emed, Poland). The mean follow-up was 6 months.

RESULTS and DISCUSSION: The combination of VASER-assisted liposuction and ArgoPlasma-Driven Radiofrequency energy have shown significant improvement in the contour and pendulosity of skin and soft tissue. Tissue contraction became noticeable in 3 months post-op. None of the patients required a revision or secondary procedure suggesting that all patients had acceptable final outcomes. None of the common radiofrequency related complications (burns, skin necrosis) were noted: the device maintains a larger difference between internal and external tissue temperatures which allow to achieve maximal tissue contraction while maintaining safe skin temperatures obviating the need for constant temperature monitoring.

CONCLUSIONS: ArgoPlasma-Driven Radiofrequency energy could be an effective method to obtain better skin shrinkage because it works on FSN which plays an important role in the skin support and tone. This technology results as safe thanks to a rapid and focused subcutaneous heating but maintaining a cool epidermal temperature. The combination of this technique with other modalities used to facilitate fat removal (VASER-liposuction) may otherwise contribute to skin contraction.

2.5.15. Power Assisted Lipoplasty of the Legs, Arms, Neck and Other Difficult Areas

Eugenio Gandolfi, Switzerland

OBJECTIVE: Objectives of this communication are to illustrate the experience of 20 years of using Vibrating Lipoplasty techniques in the treatment of difficult areas such as legs, arms and neck.

METHODS: The author used various technologies of Vibrating Lipoplasty. For the realization of this work, two technologies were used, one with a pneumatic motor of European production and one with an electric motor of American production. The pneumatic equipment has a frequency of movement of about one third compared to the electric one. The electric technology has only one movement along the antero–posterior axis, while the mechanical one also has a lateral oscillation which gives it a movement called “nutation”. The cannulas used vary in length from 15 to 40 cm and are equipped with various types of holes and various hole arrangements along the cannula which are useful differently according to the areas to be treated. The operated patients are all included in the ASA 1 anesthesiologist categories and are aged between 18 and 75 years with a numerical prevalence for women of 78% compared to 22% of men. Areas normally treatable with difficulty with the conventional technique of Suction Assisted Lipoplasty (SAL) were operated.

DESCRIPTIONS and RESULTS: The author illustrates through the examination of clinical cases and intra-operative videos the technique and the results of the treatment with Vibrating Lipoplasty of areas such as the legs, the nape region, the arms, the neck and other areas, normally treatable with difficulty with the conventional Suction Assisted Lipoplasty technique. Indications, complications and ways to avoid them are presented and discussed

CONCLUSIONS: From the examination of the results and the comparison of SAL and Vibrating Liposculpture techniques, the author illustrates how mechanical techniques allow a better definition of results, less morbidity and a more favorable final result for the patient and the surgeon.

2.5.16. Invasive and Non-Invasive Treatment of Localized Fat: Indications, Effectiveness and Limits

Regina Fortunato, Maria Servillo and Roberto Bracaglia, Italy

OBJECTIVES: The reduction in the excess of adipose tissue represents one of the most requested procedures in cosmetic surgery and involves the treatment of multiple conditions: from localized fat deposits to the treatment of entire anatomical areas, with the possible presence of further aesthetical issues, such as skin laxity, contour irregularities and cellulite. Nowadays, invasive and non-invasive tools are available to deal with this variety of clinical presentations: the non-invasive treatment with a 1060 nm diode laser and the liposuction associated with third-generation ultrasounds.

MATERIALS and METHODS: The authors evaluated the effectiveness of these devices in reducing excess of adipose tissue, with particular attention to indications, advantages, limitations and complications of each method.

RESULTS: The 1060 nm diode laser treatment has proved effective and highly appreciated by patients in the treatment of localized adiposity, due to its non-invasive characteristics, reduced duration of treatment and absence of complications. Liposuction associated with third generation ultrasounds has been shown to be indicated in the treatment of larger areas with excellent results in terms of efficacy, reduction in bruising and postoperative recovery, with a significant skin tightening effect.

CONCLUSIONS: Non-invasive treatment with a 1060 nm diode laser and liposuction associated with third generation ultrasounds are safe and effective methods, with different indications in the reduction in adipose tissue.

2.5.17. Submuscular Gluteal Augmentation: Indications, Procedures, and Recommendations of “Hybrid” Technique

Arturo Amoroso, Italy

INTRODUCTION: In recent years, gluteoplasty with prosthetic implants has gained popularity due to its long-lasting aesthetic results, which are superior to those achieved with other techniques. However, surgeons and patients still face many doubts and fears regarding this procedure due to the numerous complications that have occurred in the past, as well as the lack of a direct view of the anatomical structures involved in the execution of the operation. The aim of the present study is to illustrate a hybrid submuscular technique in which easily reproducible steps are described to assist the surgeon in a safe gluteoplasty combined with j-plasma lipo or lipofilling procedures to help achieve high-level aesthetic results.

MATERIALS and METHODS: Ninety-six patients aged 19–54 underwent surgery between 2019 and 2021. Sixty patients were fitted with a Polytech planar prosthesis with a volume between 360 and 560 cc. The remaining 46 patients received elliptical and biconvex prostheses ranging from 380 to 530 cc.

RESULTS: At a follow-up between 6 and 24 months, two rotations and one dislocation were observed in patients treated with planar prostheses. With the elliptical prosthesis, these complications were reduced. The sciatic nerve is protected by surrounding tissue and only two cases of numbness were reported, which were treated with corticosteroids.

Finally, there was only one case of double-bubble, corrected with surgical resection. All patients expressed high satisfaction with the result obtained with our technique.

CONCLUSIONS: In our experience, correct selection of the candidate for the submuscular technique as well as good surgical planning with an appropriate choice of prosthesis, using a systematic approach based on precise anatomical references, make the gluteoplasty a safe procedure with reproducible results and minimal complications

2.6. Breast Reduction and Mastopexy: The Techniques

2.6.1. The Central-Medial Pedicle in Breast Reduction

Egidio Riggio, Italy

INTRODUCTION: The principles of a “modern” breast reduction must lead to breast volume reduction, preserving in descending order: (1) anatomy (shape and symmetry); (2) functionality (blood perfusion, sensitivity and breastfeeding); and (3) aesthetics (less visibility of scars). Not all existing techniques comply with these principles simultaneously and successfully. Each technical procedure is based on the intersection of three anatomical patterns: skin resection, parenchyma resection, and type of derma-glandular peduncle carrying the areola–nipple complex. After three decades my preferences moved towards a mammoplasty principally based on a central pedicle.

METHODS: From 2004 to 2020, my series includes 100 patients, mean age 46 (min. 21–max. 75). Of them, 76 patients (76 mammoplasties contralateral to breast cancer reconstruction) and 25 patients (50 bilateral mammoplasties). A series of 126 surgical procedures adopting the central-medial pedicle were collected. All were breast reductions except for 17 mastopexies. T-inverted pattern was mainly used for reduction while the vertical pattern was for pexy.

DESCRIPTION and RESULTS: The (supero)medial and central pedicle maintains the perforators of the central mold of the breast and skin innervation from medial nerves. Resection could include all the inferior, lateral and supero-lateral quadrants. (mean 424 g. min. 80–max. 1800) and the time of resection is quick. Bleeding is lower because most surgical sections follow the cleavage plane of the septal frame (Cooper’s ligaments) of the breast sparing the main perforators. This technique preserves the greatest amount of functional glands connected to the ducts. The pedicle moves by transposition-rotation towards the upper pole without folding of the same flap. The preservation of septo-cutaneous vessels guarantees larger perfusion of the nipple–areola complex. The venous congestion is very rare and only two necroses were observed. Nipple sensitivity is sufficiently preserved. The choice for a vertical skin pattern has grown by the technique. The results such as breast shape and patient satisfaction were high.

CONCLUSIONS: Vascularization and mobility of the derma-glandular flap are safer compared to all others. Inferior and lateral breast that represents the areas to be bigger and pendant in women with large breasts can be better resected off. In addition, it permits to fill the upper pole better than an endo-prosthesis flap technique. The time spent in breast reduction is prudently shorter. Breastfeeding in young women is consistently preserved. Nowadays, the central-medial pedicle represents my first choice, especially in bigger reduction and pexy

2.6.2. Breast Reduction by Dr Millan: Evolution Respecting Tradition

Claudio Bernardi, Italy

INTRODUCTION: Breast reduction technique by Roberto Millan, never published by the author but used and taught in the School of Plastic Surgery of Sao Paulo in Brazil which he directed until the 1990s (Serviço de Cirurgia Plástica, Hospital Santa Catarina SP), is a superior pedicle technique with an inverted “T”, which does not require a preoperative design of the skin to be resected. This technique can be considered an element of tradition of the school, and at the same time a key didactic passage in the transmission of knowledge from the teacher to the student, which is the basis of a training process.

SURGICAL TECHNIQUE: The first phase consists in a periareolar and “T” inverted skin incision and demolition of the gland by undermining two skin flaps in the lower pole; the second consists of the removal of excess glandular tissue; the third phase consists of a manual remodeling of the breast cone and skin redraping. Finally, the repositioning of the areolo-mammillary complex is performed.

DISCUSSION: The Millan’s technique can be considered an “a la demand” reduction mammoplasty, that the surgeon performs progressively until the final result is reached. Not having a precise initial incision pattern, the technique is certainly very operator-dependent and, therefore, requires a not short learning curve. Furthermore, it might be longer than other techniques with previous skin resection design. The advantage is represented by the great versatility of the technique that can be applied in all types of breast reduction and mastopexy, without having problems with the upper repositioning of the nipple–areolo complex (up to 20 cm in my experience).

The author illustrates the basic technique and some of his personal modifications that he currently uses in his clinical practice.

2.6.3. A Simple Way to Perform a Safe Mastopexy Plus Implant

Ernesto Maria Buccheri, Italy

OBJECTIVE: Simultaneous breast augmentation mastopexy for moderately to severely ptotic breasts presents the challenge of determining how much excess skin should be removed after implant placement to create symmetry and provide maximal skin tightening without compromising tissue vascularization. Moreover, an optimal procedure needs to be fast, reliable and simple.

METHODS: The presented technique involves invagination and tailor tacking of the excess skin after sizer implant placement by using 3/0 single silk stitches and then making a pattern around the tailor-tacked tissues for previsualization of the total area to be resected. Moreover, the tailor tacking technique guarantees a full coverage of the implant. Over a 5-year period, 156 women had simultaneous augmentation mastopexy with this approach.

DESCRIPTIONS and RESULTS: All patients had breasts with hypoplasia and ptosis classified as Regnault grade II or III. A total of 129 women received follow-up for at least 24 months and were included in the presented study. Mean patient age was 34.6 years (range 28–57 years) with 78 patients (59%) aged 30–41 years. Breast ptosis was attributed to weight loss in 50 patients (39%) and to pregnancy/lactation in 79 patients (61%). The mean operating time was 140 min (range, 130–150 min). Stable form high-projection textured round implants were placed in the subglandular plane, mean implant volume was 275 cc (range, 225–350 cc), with 95 patients (74%) receiving a 300-cc implant (diameter, 11.1 cm; projection, 4.7 cm). The most common complications were Baker II capsular contracture and wound dehiscence without any kind of implant exposure; no implant displacement or implant malposition is reported. No patient experienced nipple loss or skin flap necrosis.

CONCLUSIONS: This technique minimizes the chance of tissue necrosis from devascularized skin edges, dehiscence and implant exposure. With the development of this technique the frequency of complications has been reduced. The results demonstrate that the tailored augmentation-mastopexy is suitable for patients with breast ptosis and hypoplasia with an extremely high rate of patient satisfaction.

2.6.4. Internal Mastopexy and Breast Augmentation in the Correction of Breast Ptosis: Indications and Limits

Antonio Di Vincenzo, Italy

OBJECTIVE: We tried to evaluate the effectiveness of internal mastopexy to correct breast ptosis.

METHODS: Patients with mammary ptosis up to a maximum of 2 cm (par 2) were treated with breast augmentation and the application of a series of sutures between the mammary gland and the pectoral muscle fascia according to a predefined pattern. The follow-up was extended to 6–10 months.

RESULTS: From 2010 to 2020, 628 patients were treated mono- or bilaterally. The results were always satisfactory, often very pleasing. The method has greatly reduced the use of external mastopexy.

CONCLUSIONS: The technique of suspending the mammary gland on the pectoral muscle by applying sutures associated with the placement of an anatomical breast prosthesis is an effective alternative in selected patients

2.6.5. Vertical Scar Breast Reduction. History of Techniques and Personal Development of Personal Modifications

Elio Caccialanza and Giovanni Turra, Italy

OBJECTIVE: Reduction mammoplasty has always aimed at recreating a new breast's appropriate size, symmetry and projection, at practicing the shortest excision, at preserving sensitivity as well as breast feeding capability, and at stable results. Reduction mastopexy is a very requested plastic surgery which often stems from psychological problems but also from physical discomfort such as dorsal pain, chest compression, intertrigo, etc. The surgical technique has been modified over time to make it less invasive and with more permanent results, to comply with the youngest patients' requests. The most demolitive surgical techniques, where wide cutaneous portions were excised, were stopped after the 1960s. Breast reduction involves a combined removal of dermis and gland parenchyma whilst preserving blood supply, innervation and ductal integrity in the areola nipple area. To this purpose, surgical techniques include the use of inferior, superior, lateral and medial pedicles. The evolution of the pedicle techniques allowed to obtain reliable and safe results. Ariè and Pitanguy used the superior pedicle, Strombeck described a technique with horizontal dermal bipedicle in 1960 and Skoog made a few technical modifications in favor of the lateral pedicle in 1963. In 1970, the McKissock technique with a bilateral vertical pedicle flap began to become. Over the last 30 years, the trend toward smaller scar sizes stimulated the development of new techniques; the vertical scar techniques and the "round-block" technique by Benelli. The vertical scar mammoplasty was first described in 1923 by Lotsch and in 1924 by Dartigues, who referred to mastopexy, later extended to reduction mammoplasty by Arié in 1964. This technique had no great success also because of the vertical scar that often extended itself beyond the mammary cleavage. Later taken up by Lassus in 1964, this technique was broadened by Marchac and Olarte and was thereafter reviewed and popularized by Lejour.

METHODS and SURGICAL TECHNIQUE: The presence of volume or shape breasts asymmetries is first accurately evaluated. No pre-operative planning is carried out except for the cleavage drawing, that will be used as a reference for the intraoperative drawings. The circumference of the new areola will be incised to the dermis while the surrounding skin will be undermined more or less widely according to the ptosis importance. The breast will then be vertically elevated, and a wide skin triangle drawn and disepithelialized, whose higher base is bordered by the areola lower extremity and whose apex is 3cm over the breast cleavage. The inferolateral and inferomedial skin is detached up to the breast cleavage, but not beyond. A total gland resection is then carried out, which includes the pedicle inferior portion, then extended laterally to the infero-lateral and infero-medial gland poles, more or less widely depending on the reduction necessities. The dermal glandular flap is detached by the muscle floor, made thinner if necessary to facilitate its lifting, then anchored to the muscle floor by a suture with absorbable stitch 3/0. The two lateral gland poles are sutured to make the new breast cone. The exceeding skin will be partially gathered in correspondence of the new areola. There will be, therefore, a slight gap between the areolar and the periareolar circumference, which, if modest, will result in a good quality scar. The vertical suture is then made, as suggested by Lejour, by intradermal non-chromic absorbable stitches, gradually shortening them to obtain a final scar that will not exceed the under breast. At the end of the surgery, a pressure dressing will be applied, that will be kept for the following 20 days on the inferior glandular pole, in order to favor and keep in position the inferior apex of the vertical scar to the under breast.

DESCRIPTION and RESULTS: Although reduced vertical scarring is an important technical step forward in terms of looks, it involves the presence of a scar which, though small, may be slightly displaced from the under breast and be visible when the patient raises her arms. Ariè had shown the possibility to obtain, in cases of moderate hypertrophy, a single vertical scar extending beyond the under breast and of a proportional length with respect to the correct ptosis degree. The unaesthetic scar extension on the chest skin has, therefore, justified the partial variation in the technique by the creation of a short horizontal scar, more easily concealable. This technique was the one we basically adopted, since it allows a very good gland reshaping, stable over time, and scars whose size, in cases of ptosis-macromastia of mild and moderate degrees, is compatible with an aesthetical surgical approach. Lassus and Lejour stimulated the research by proposing new, exciting techniques based on vertical scars, the use of which also applies in cases of severe macromastia. The Lejour technique, that we adopted on a few patients, presented, however, in our hands, some inconveniences: the pre-operative drawing of the new mosque-dome shaped areola made its subsequent positioning difficult. Additionally, the vertical purse-string suture involved many long-lasting skin folds and determined, in severe ptosis, a relevant skin excess to the lower extremity, making necessary, in some patients, a secondary correction through the creation of a small horizontal scar. The promising advantages of a single vertical scar technique were partially invalidated by the poor quality of the scars, and by the difficulty of effectively shaping the skin mantle on the new gland cone; thus affecting an aesthetic recovery that was slow and often incomplete. We, therefore, adopted a few technical measures that, in our opinion, let a “simple” reconstruction of the mammary cone, associated to a good scar quality and a fast and stable new shape. The vertical scar technique was criticized for its difficulty to learn and being fit for breasts of average size. More recent studies have proven the applicability of this technique to any breast size ensuring safe, reliable and quality results. When comparing the two techniques, also in other studies dealing with cases with similar complications, the vertical technique has been preferred for smaller scars and the good projection maintained over time. Among the complications quoted in the literature there are seroma, especially in cases of liposuction associated to reduction mastoplasty, hematoma, tissue necrosis or fat necrosis, that is the surgical suture dehiscence. These latter in particular are lessened in the presence of a reduced tension in suture lines and gland parenchyma.

CONCLUSIONS: We used this technique on 140 patients and, in our records, it proved to be easy to perform and without complications. The described gland shaping allows to create a pleasant and well-projected breast cone. The areola positioning is favored by the harmonization between the reduction in the dermal-glandular pedicle and the initial periareolar detachment, that allowed to create a suture without tension in all the cases. The redistribution of the cutaneous mantle on all the gland parenchyma avoids an excess of cutaneous folds, that is typical of the Lejour technique, and favors a quicker definition of the new mammary cone over time. The new breast, exceedingly projected at the beginning, gains its definitive and stable look in about 30 days. It has been possible, in all the patients, to obtain a single vertical scar that does not exceed the cleavage.

2.6.6. A New “Hammock Flap” in Superomedial Breast Reduction and Mastopexy Angelica Aquinati, Costanza Binci, Valentina Ceconato and Michele Riccio, Italy

OBJECTIVE: Superomedial pedicle breast reduction is a standardized, versatile and reproducible technique, useful in esthetic and reconstructive surgery. It ensures satisfactory breast shape, but not consistently good long-term outcomes, in terms of flattening of the lower pole and/or re-ptosis. We described a surgical trick with a new hammock-shaped flap, which was combined with superomedial breast reduction to improve long-term outcomes by enhancing pedicle support, lower pole projection and preventing ptosis recurrence.

METHODS: Our hammock flap is useful in superomedial breast reduction and mastopexy. From January 2017 to January 2020 a hammock-shaped flap was performed in 30 patients undergoing unilateral ($n = 20$) or esthetic bilateral breast reduction ($n = 10$). This flap

is a perforator advancement flap, based on the inframammary fold (IMF). It is fixed to the pectoralis major fascia and to the pedicle like a hammock. We measured at 1, 3, 6, 12, 18 and 24 months three parameters: sternal notch-to-superior areola border length, nipple-IMF length and lower pole convexity. Patient satisfaction with breast shape, size, NAC position and lower pole projection was rated at 24 months using a condensed form of the BREAST-Q questionnaire whose items are scored from 1 (lowest) to 5 (highest). From January 2021, we performed this technique with a general surgeon in three patients affected by tumors of the lateral breast quadrants. In these oncoplastic cases, the flap was employed to fill and reshape the lateral breast after tumor resection.

DESCRIPTIONS and RESULTS: Standard reduction known landmarks are drawn with the patient standing (Pitanguy's maneuver, Wise keyhole pattern and Aufricht maneuver). The hammock flap is based inferiorly on the inframammary fold (IMF) as an advancement flap. Flap size ranges from 6×3 to 16×8 cm² depending on breast volume and chest size. After flap de-epithelialization and standard superomedial breast reduction the flap is dissected superiorly, medially, laterally and inferiorly down to the fascial layer including the mammary perforators. After marking the IMF position, the flap is advanced superior and horizontal to the pedicle and fixed like a hammock to the pectoralis major fascia at the level of the fourth or fifth rib and to the pedicle using absorbable everting sutures. There were no complications. Esthetic outcomes at 24 months were good in all patients. Postoperative measurements were stable throughout follow-up. The BREAST-Q scores indicated that all patients were satisfied or very satisfied with their breast (s).

CONCLUSIONS: The hammock flap is performed with autologous tissue. It is simple, safe and effective. It provides improved pedicle fixation and positioning. It is adapted to the patients' requirements. Flap shape may consist of two triangles divided by a central rectangle or of parts of them. Our flap is useful in breast reduction and mastopexy to improve esthetic outcomes. This technical refinement seems to afford good long-term outcomes. It is also able to fill and reshape the lateral part of the breast in oncoplastic surgery.

2.6.7. Minimally Invasive Breast Lift: An Alternative Technique for the Correction of Breast Ptosis

Nicola Freda, Italy

In the Breast Unit we have often needed to symmetrize the contralateral breast to the reconstructed one, with the objective to maintaining the original shape, as much as possible for the reconstructed breast and also for the contralateral one when is necessary to symmetrize it.

The reconstructed breast is generally not ptotic, so there is a need to correct the ptosis of the contralateral breast, and, in our experience, we have undertaken this path with a minimally invasive technique with an upper areola approach, shaping an areolar flap that goes up above the de-epithelialized dermis, giving projection to the nipple and avoiding the usual complication of the peri-areolar approach that is the lack of projection of the areolar nipple complex.

This technique gives a high acceptance by the patients and they accept it even when they would have declined the surgical procedure if that is more invasive.

We had the chance to apply this technique also for aesthetic procedures with a great satisfaction of the patients.

The idea is to obtain a natural result well appreciated by the patients, with a minimum invasiveness and with an almost invisible scar, well disseminated on the upper areola approach; this is an alternative technique to the T reversed or the L or the Peri-areolar.

We operated over a one year time period, 26 patients, aged from 31 to 78 years old who had a reconstructed breast after a mastectomy with a pre-pectoral or sub-muscular implant. Three more patients benefited from this technique described only for aesthetic reasons, and they had already a previous bilateral breast implant.

The indication is for mildly to moderate ptosis. The rank of ptosis correction was between 1.5 and 6.5 cm.

The results obtained were more than satisfactory, with a natural appearance of the breast with the areolar–nipple complex.

In conclusion, repairing the breast ptosis with this technique, is indicated for all patients with a light–mild ptosis that have to be between 1.5 and no more than 6.5 cm, but the recommendation is to not exceed the 5 cm, to obtain a much more natural appearance. The scar will be very mild on the superior edge of the areola.

2.6.8. The Use of Meshes in Mastopexy: Rationale of Use Adriano Santorelli, Italy

OBJECTIVE: Mastopexy continues to be one of the most challenging surgeries in aesthetics. This is due to evolution and changing of the breast over time, the false expectation of the patients and mistakes especially in implant choice by the surgeons. Rationale of use of the meshes could be a valid support in this kind of surgery.

METHODS: We analyze a cohort of patients, who underwent a mastopexy with mesh with or without implants and their long-term results.

DESCRIPTIONS and RESULTS: Long-term results of patients who underwent a mastopexy with mesh show stable results at three years, a 30% reduction in descent of the implant in the lower pole in accordance with the literature.

CONCLUSIONS: Meshes should be a valid support in mastopexy, especially in the patients with severe laxity or for surgeons that prefer large sized implants. The learning curve is very short too.

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