High-Definition Excisional Body Contouring

Mini Lipoabdominoplasty (FIT Mommy) and Enhanced Viability Abdominoplasty

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KEYWORDS

• Liposculpture • Abdominoplasty • Excisional surgery • Tummy tuck • Fat grafting • Liposuction • High definition • Lipoplasty

KEY POINTS

- Scarring, pigmentation, and asymmetries remain important patient concerns when excisional abdominal surgery is performed and have become challenging for plastic surgeons.
- Full and mini lipoabdominoplasties can be combined with high-definition liposculpture to improve results and also ameliorate most of these stigmata.
- Enhanced viability abdominoplasty is a reproducible and safe procedure to perform with very low rate of complications.
- Neoumbilicoplasty is a new and very useful concept to avoid hyperpigmentation issues, allowing us to enhance the youthful appearance of the abdominal area.
- FIT Mommy procedure is an option for those patients who benefit of some excision in the abdominal wall but do not need an entire resection.

INTRODUCTION

Body contouring procedures continue to increase in number worldwide, in part due to lifestyle changes, weight loss surgery, and social media pressures.[1] According to the 2018 American Society of Plastic Surgeons report on procedural statistics, tummy tuck (abdominoplasty) remains the fifth most common cosmetic procedure in the United States, with 130,081 cases.[2]

Years ago, surgeons realized that removing excess skin and fat tissue facilitated hernia repair and improved both the surgical result and patient satisfaction, as described in early lipectomy reports.[3] However, the proper term "abdominal lipectomy" was coined by Kelly in 1899, as the procedure was focused on adipose and skin flap resection.[4] Since these early descriptions, the technique has been subject to multiple modifications and technical improvements enhancing the surgical results.[5,6]

Recent publications have focused on technical variations and means of reducing surgical morbidity.[7,8]

Mini abdominoplasty was introduced by Greminger in 1987 and Wilkinson in 1988. They reported a case series of women with skin laxity and fat excess in the lower mid-region of the abdomen on whom a "limited" abdominoplasty was performed with very reliable results, However, the procedure was not widely adopted and full abdominoplasty remained the overwhelmingly most common option. Today indications for dermolipectomy in postpartum women are defined

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by the presence of stretch marks and/or laxity of the skin. In patients without mild skin excess, a mini-lipectomy may be considered more appropriate, given the reduced morbidity and clear advantage of umbilicus preservation.

On the other hand, liposuction and newer technologies used alone or in conjunction with abdominoplasty have improved our results. Our experience includes the wide use of third-generation ultrasound (VASER, © 2018 Solta Medical - Bausch Health Companies Inc., Laval, Quebec, Canada) to perform selective fat emulsification, making fat extraction much easier, preserving flap vascularization, and improving long-term aesthetic results.[9] A detailed understanding of the 3-dimensional anatomy combined with new surgical tools allows the surgeon to sculpt the abdomen and reproduce the natural "lights and shadows" of the abdominal area. This forms the basis of high-definition lipoplasty techniques.[10] Although different techniques have been described, the major principles remain the same. The current authors have published their experience with 736 consecutive patients who underwent high-definition lipoabdominoplasty[11] as well as the indications and results of patients who underwent mini-tummy tuck.[12]

In the next sections we describe our experience with abdominoplasty techniques in addition to 360-degree high-definition liposculpture, which has allowed us to go beyond the traditional procedures.

Anatomy

The first important step during preoperative evaluation for body contour surgery is the detailed acknowledgment of the variable aspects of the individual's anatomy. The ideal abdomen is made of a complex combination of convexities and concavities created by the underlying muscle mass and bone prominences. In the female, the curvaceous, athletic, and slim appearance in the abdominal area is preferred, as this resembles youth and attractiveness. There are 3 areas of concavities recognized:

1. The subcostal area, between the lateral border of the rectus abdominis and the lower costal margin.

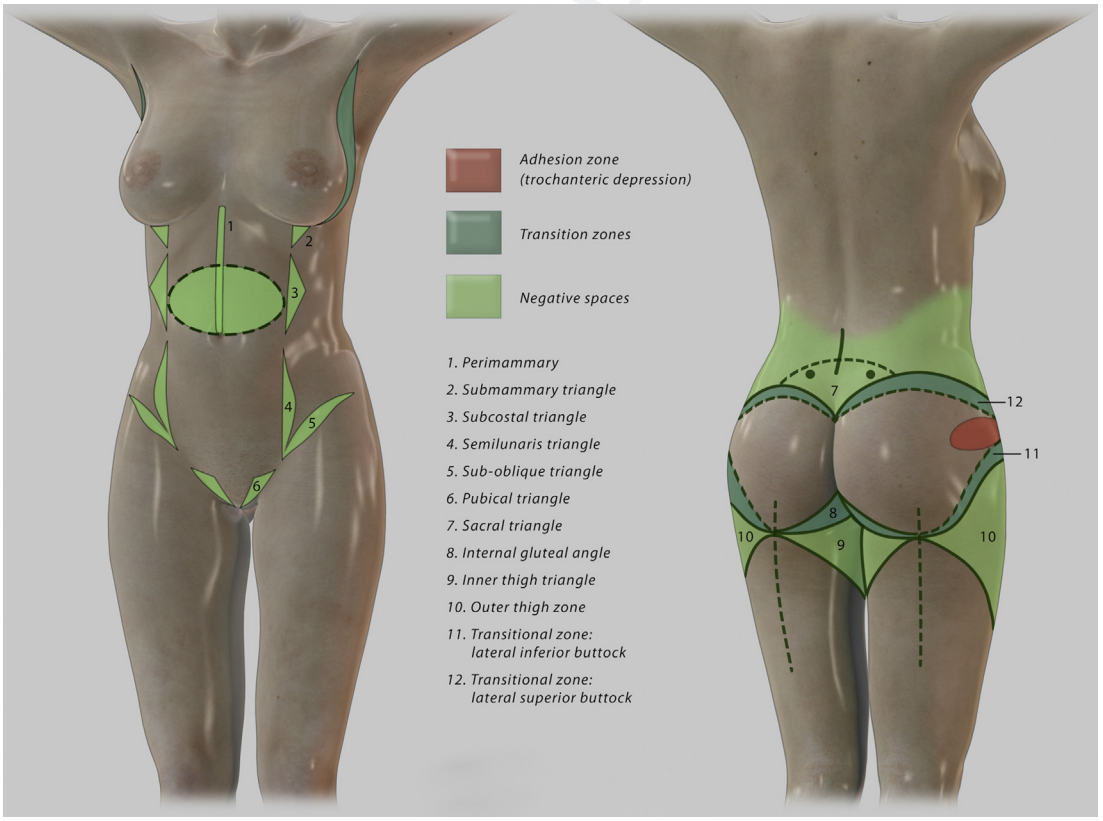

Fig. 1. Negative spaces and transition zones for special framing. Triangles are marked for smooth definition in EVA and FIT Mommy procedures because they will restore the normal underlying anatomy with enhanced athletic and slim appearance.

2. Between the inguinal ligament and the lower border of the semilunaris line.
3. The midline above the umbilicus.

These concavities as well as other areas in the torso and lower back are special landmarks that we need to have in mind when performing body contour surgery in the abdominal area, as they will ensure the optimum and natural athletic look (**Fig. 1**).

Women experience different changes in their skin and abdominal wall during pregnancy, due to different mechanical, hormonal, immunologic, metabolic, and vascular changes. This includes pigment alterations, stretch marks, glandular hyper-function, acne and dermatitis, excessive connective tissue relaxation, and diastatic rectus abdominis muscles. Weight gain, skin laxity, and excess of selective fat deposits remain the principal characteristics in women postdelivery. On the other hand, women with excessive weight gain or some grade of obesity also experience some of these concerns. For these patients, to whom liposuction is not suitable because of the postoperative excess skin flap, evident stretch marks, and other issues described previously, excisional abdominal cosmetic surgery is indicated. A 360-degree high-definition liposculpture in addition to mini or full lipoabdominoplasties can be performed according to individual patient characteristics.

Variations among patients are multiple and complex, but the more the deformity the clearer and more aggressive the treatment should be. A detailed preoperative assessment will help plan the appropriate procedure for each patient. Liposuction may be the best treatment for thin women with minor skin excess and fat deposits, whereas abdominoplasty is best for obese women with severe skin laxity, umbilical ptosis, and abundant abdominal fat deposits.

The difficult group to classify could be the patients who do not fit the criteria for liposuction or for abdominoplasty, as they could be just "too little and too much," respectively. Today because of the emphasis on diet, health, and fitness, many women seeking abdominoplasty are less likely to be overweight. Also, more women are having their first pregnancy in their late 30s and early 40s under optimal conditions of medical care. As a consequence, these women require minimally invasive procedures with less obvious scars. So, we have considered these as specific indications for a minimum excisional procedure or FIT Mommy lipoabdominoplasty. On the other hand, there are some women who are marginal candidates for these procedures, but simply will not accept any other surgery (eg, due to large scars or risk concerns), making this technique a relative indication. These patients must be warned about the possibility of having suboptimal results.

The full abdominoplasty has constantly undergone new improvements reducing the complications associated with the procedure. Stigma about the umbilicus discoloration, and significant and obvious scarring make many think twice about undergoing such a procedure. In particular, the preoperative umbilicus position has been a controversial indication for mini versus full abdominoplasty. Different reports have attempted to standardize umbilical location but many differences exist among populations.[13] We have described an area rather than a unique position as follows[11]: First, we draw a point in the middle of the line between the xiphoid process and the pubic symphysis, then a second point in the intersection of the upper two-thirds and lower one-third of this same line. The zone limited by these 2 points is the one we consider would be optimal for umbilicus placement. In our experience, a straightforward indication for mini-tummy tuck should be the patient with a high umbilicus location and little supraumbilical skin redundancy. In

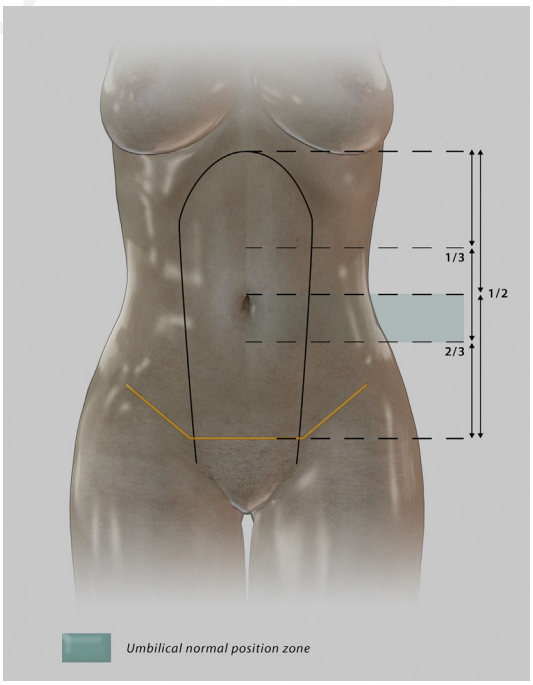

Fig. 2. Umbilical normal position zone. Area delimited over the midline (from the xyphoid process to the pubis) between the midpoint and the junction of the 2 upper thirds with a lower third. If the umbilicus is below this area, there is a high chance of requiring an EVA.

contrast, If the umbilicus was in or below the second drawn point, it would be a better candidate for a full lipoabdominoplasty.

Another important consideration regarding high-definition liposculpture is the *dynamic* concept of abdominal muscles. All of our muscles move and create different contours in our core structure, allowing our body to be in ceaseless motion. Abdominal muscles are constantly helping in the respiration process as well as the movement of the torso. This dynamic behavior has helped us design an aesthetic approach to avoid the standard "steady" appearance of the belly after liposuction, but rather improve the natural results in high-definition liposculpture. In abdominal excisional surgery, we always perform an active test of abdominal muscle contraction to determine the position of the rectus bellies and underlying anatomy of each patient. If we observe that the new umbilical position may be below the lower one-third of the xiphoid-pubic line, then a full abdominoplasty would be a better choice. Additional explanation is found in the markings section.

Neo Umbilicoplasty

The umbilicus shape and structure has been a matter of debate in multiple societies and cultures. In fact, some religious beliefs surround this remnant of the umbilical cord. The umbilical scar is the foremost stigma that women worry about in lipoabdominoplasty. Its appearance changes through life due to aging and pregnancy: stretching, shape distortion (vertical to horizontal), presence of hernias, and hyperchromia due to hormonal changes in pregnancy may all occur.[14] These factors and its prime visible location give the umbilicus a very important role in abdominal aesthetics that should always be considered. Lipoabdominoplasty undoubtedly affects its position and shape on the abdominal wall. It almost always has a skin tone that is different from the surrounding skin after implantation. Performing a neoumbilicoplasty has consistently changed our patients' thoughts about full lipoabdominoplasty and has solved all these issues.

Gaudet and Morestin provided the first description of umbilical reconstruction in 1905; however, it was not until 1960 that the research focused on improving abdominal contour.[15] Pitanguy (1975),[16] Baroudi (1975),[17] Regnault (1975),[18] and Psillakis (1984)[19] highlighted the benefits of a lower location of the incision, making the umbilicus smaller and achieving acceptable long-term results. Since, investigators have focused on describing different techniques for

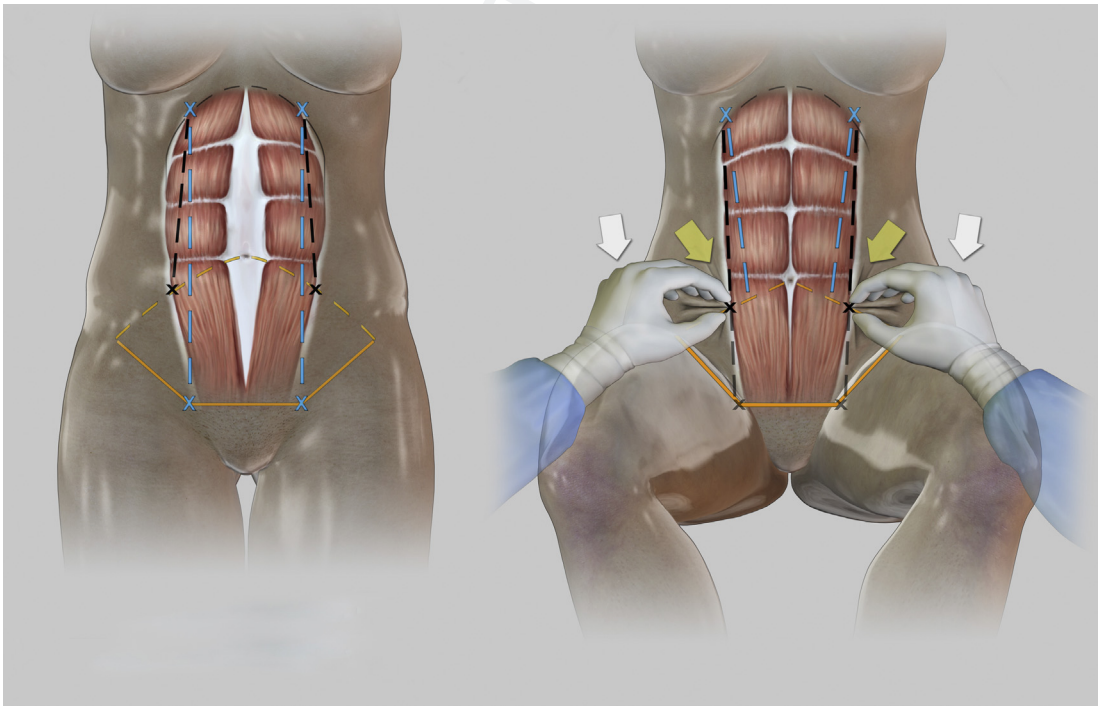

Fig. 3. Markings. Linea alba, actual (*left*) and predicted (*right*) positions are marked in resting position (*left*) and with active contraction (*right*). Active contraction helps us to predict the future position of the rectus abdominis muscle after plication.

neoumbilicoplasty and we have described our own, which we believe yields optimal results.[11,13]

With regard to umbilical placement, 3 main locations have been described in women: (1) a line drawn from xiphoid to pubis, the umbilicus is then located 60% of the distance from the xiphoid; (2) the umbilicus is located between the anterior-superior iliac spines[20]; (3) approximately 15 cm measured from the midpoint of the pubic bone upward.[21] These locations have been widely used among plastic and general surgeons in reconstructing and/or relocating the umbilicus. However, a standard measure has not yet been defined. We have considered the location as a dynamic concept that should fit the particularities of the patient's body distribution and height. So, the specific measures from pubis and iliac spines are not accurate because they do not take into account the height variations and/or the iliac shape. Because the xiphoid-pubis measurement varies according to the individual's height, youthfulness, and other anatomic considerations, we considered a better choice to describe an "umbilical zone" rather than a single point for each patient (**Fig. 2**).

SURGICAL TECHNIQUE
Enhanced Viability Abdominoplasty

According to the book of *Genesis* from the Bible, Eve was born form Adam's rib. However, as she did not have an umbilical cord, the umbilicus was nonexistent. This singular biblical deduction inspired us to create a full tummy-tuck procedure enhanced by VASER extraction that enhances viability (enhanced viability abdominoplasty [EVA]) to perform high-definition liposculpture in addition to neoumbilicoplasty. It is a conceived as a 3-phase procedure that starts with liposculpture, followed by abdominoplasty and ending with umbilicoplasty.

Markings

In standing position, general areas of extra fat deposits are marked on the trunk, abdomen, buttocks, thighs, and arms for deep liposuction. The negative zones for smooth liposuction are marked with another color following our own code. Prohibited zones are also marked in the gluteal and lumbar anatomic regions. The abdominal midline is marked by palpation of the linea alba. The surgeon must predict where the rectus abdominis muscle will be placed after plication. As we discussed previously, we must consider the dynamic concept of the muscular movement on the marking process: this should be done with the patient in a standing position paying attention to the muscle insertions. Do not guide its markings by the superficial landmarks because of the muscular diastases caused by pregnancy. First, in resting muscular position we draw the muscle limits to determine the diastases zone; then, the patient is asked to perform an active muscle contraction to mark the upper and lower insertions of the rectus abdominis muscle. Once these points are referenced, a line is drawn from the upper to the lower direction to predict where the lateral border of the muscle is going to be placed after plication (**Fig. 3**).

Liposculpture Liposculpture is completed as a 3-step process:

1. Start in prone position and later in supine, with infiltration of tumescent solution (1000 mL of

Fig. 4. Enhancing definition of the medial line: above the umbilicus very superficial stitching; below the umbilicus just grab the Scarpa fascia.

saline with additives of 10 mL of 1% lidocaine and 1 mL of epinephrine 1:1000) having a ratio of infiltration/removed volume of 2:1 to 1.5, approximately. We begin in the total prone position to perform a perfect symmetric and comparative liposculpture. By this time, the anesthesiologist makes ventilator changes to ensure a safe posterior liposuction always guided by CO_2 monitoring. Also, a fluid preoperative load of 10 to 15 cm^3/kg is administered to guarantee the cardiac preload and to minimize the hemodynamic effects of the prone position.

2. Fat emulsification is done by third-generation ultrasound (VASER) using 2-mm, 3-mm, and 3.7-mm grooved probes.
3. Extraction is performed using powered-assisted liposuction (POWER X Lipo© 2018 Solta Medical-Bausch Health Companies Inc.), following the preoperative markings, blending deep, intermediate, and superficial fat layers using 4.6-mm and 3.7-mm cannulas. The VASER is used in pulsed mode with 70 to 80 W for trunk and abdomen and 50 W for legs and arms. The harvested fat can be centrifuged and grafted in other zones (eg, gluteal, deltoid, and/or breast enhancement) as needed (see the *FIT Mommy* section for further explanation).

Lipectomy Beginning with a classic low-transverse incision, the abdominal flap is released in the lower abdomen in the sub-Scarpa layer and in the upper abdomen in the suprafascial level, using a tunneling technique with careful hemostatic control followed by plication of the rectus abdominis muscles. The native umbilicus is resected, and the remnant is fixed to the deep fascia. The abdominal flap is then advanced and secured with a progressive tension technique; wide continuous stitches are used from the xiphoid down to the umbilicus (progressive tension suture) to enhance the midline appearance in the upper abdomen using absorbable suture. Below the umbilicus, the stitching is made less superficial than above, just grabbing Scarpa fascia (**Fig. 4**). The excess skin is then resected, and closure is performed in layers. A single closed Jackson-Pratt drain is placed at the end of the procedure (Blake ETHICON, Inc., Johnson & Johnson, Cincinnati, OH). Any additional liposuction over the flap is then performed following the markings to enhance the muscular definition.

Neoumbilicoplasty: immediate versus delayed Although not conventional, delayed neoumbilicoplasty may be necessary to preserve the flap viability. The choice is made intraoperatively according to the following conditions: (1) high flap tension; (2) flap discoloration or congestion; (3) thick flap, which required more liposuction over the area; (4) if additional definition was performed or planned for a second procedure; (5) inadequate flap descent or if inverted T-flap closure was

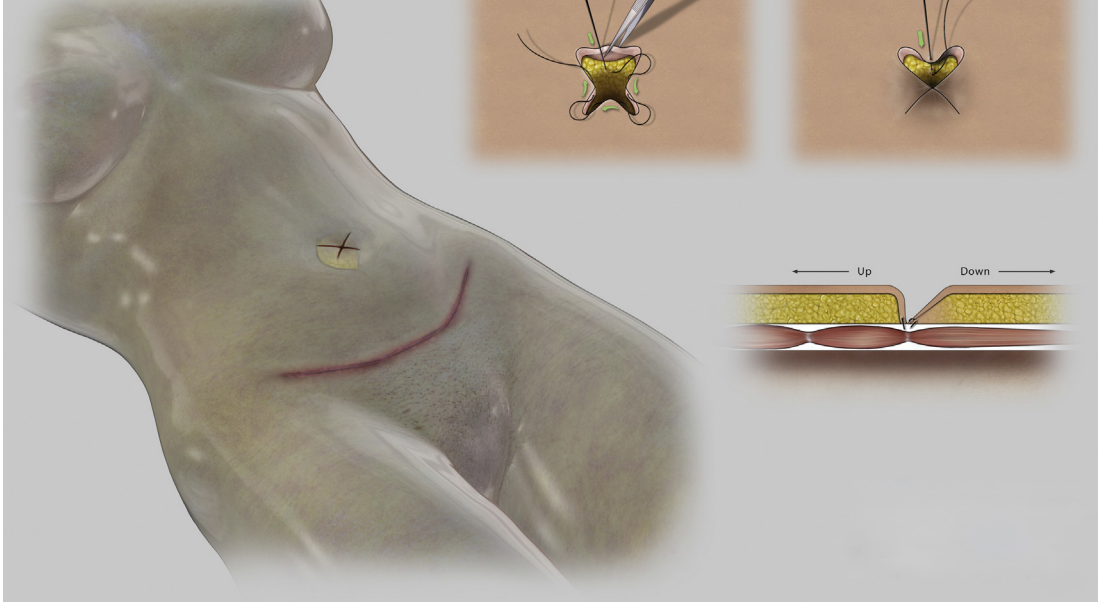

Fig. 5. Neoumbilicoplasty. Butterfly technique: X-shaped incision with upper larger flaps.

necessary; (6) secondary or revision lipectomy; (7) high scar placement. The timing for the neoumbilicoplasty procedure is defined by the time the drain is removed after the first stage (7–10 days). Some patients chose to do the navel procedure after feeling completely healed of the lipoabdominoplasty (4–8 weeks). The ideal umbilical zone is the area delimited over the midline (from the xyphoid process to the pubis) between the midpoint and the junction of the 2 upper thirds with a lower third (see **Fig. 2**). Within this line, the umbilicus should be placed according to the height of the patient in a higher or lower position. Higher locations are preferable in younger patients, fit women, and patients who want an athletic look. The lower location is preferable in older patients, women who want a rather "soft" (nonathletic) look, or patients with larger and/or ptotic breasts (ptotic breasts tend to make the optical illusion of a shorter torso). After defining the best location for the umbilicus, zones for deep and superficial liposuction can be marked for extra fat resection and definition when delayed neoumbilicoplasty is performed.

Neoumbilicoplasty procedure

An X-shaped incision, with 60° in the apex angles, is done across the linea alba, deep enough to reach the rectus abdominis fascia. Upper incisions must be 10 mm long and lower incisions 5 mm. As

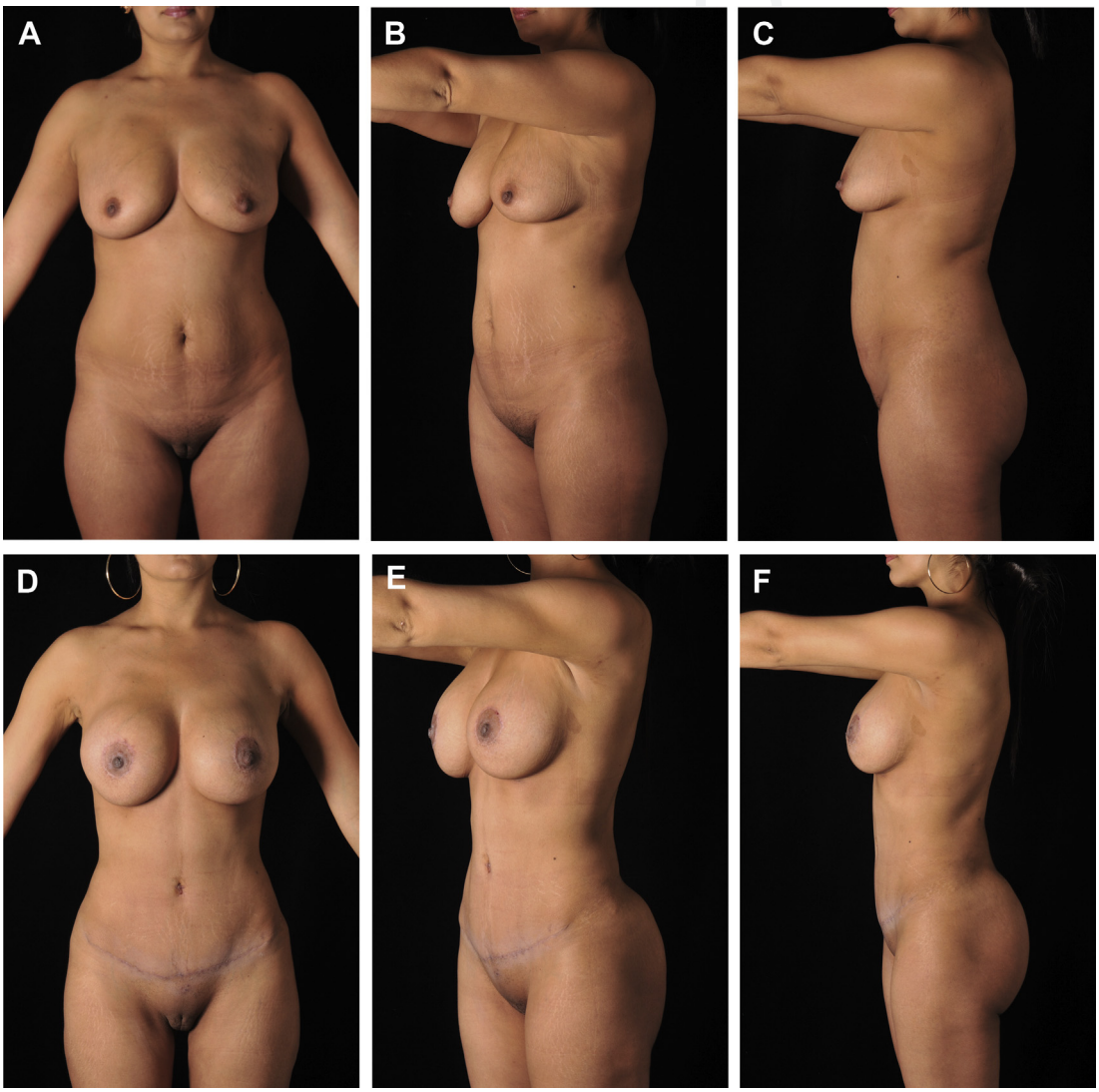

Fig. 6. A 36-year-old woman. EVA was performed. Observe the new athletic and youthful appearance of the abdomen in addition to a low scar placement in the postoperative pictures (*D–F*) compared with the preoperative pictures (*A–C*).

a result, 4 triangular flaps appear: superior, inferior, left, and right. The 3 lower flaps are sutured with continuous subcuticular stitch and fixed upward to the abdominal fascia in a spot located on the base of the upper flap (**Fig. 5**). The superior flap is fixed loosely to the fascia, in a perpendicular way. The wound is covered with gauze embedded in topical antibiotic to induce a round umbilicus shape. After week 1, the gauze is removed and a silicone spherical splint or a marble is left in the umbilical hole for 2 more weeks.

Postoperative Patients with fat extraction of more than 5000 mL, tense or high-risk flap, additional procedures, and comorbidities, such as hypertension or diabetes, are eligible for overnight in-hospital observation. A loose garment and a foam vest are indicated to use from the immediate postoperative period until 8 weeks. Patients are recommended to sleep in supine or lateral position as tolerated. Prone position is not recommended to protect the flap and avoid the neoumbilicus flattening. Follow-up visits are done at 48 hours postoperative and 3, 6, and 12 months. Photo records are made in each of the preoperative and postoperative appointments (**Figs. 6** and **7**). Postoperative CARE program is recommended for all our patients. This program includes lymphatic

Fig. 7. A 40-year-old female patient. EVA was performed. Notice the preoperative (*A*, *B*) low position of the umbilicus and the abundant pannus surrounding the abdominal area. After EVA (*C*, *D*), the new slim figure and higher-positioned umbilicus makes the patient look younger.

drainage, massage therapy, active and passive physical therapy, and ultrasound. Trained nurses and therapists are carefully instructed in structured protocols.

Complications Although strict protocols and safely procedures are planned in each of our patients, every surgeon is likely to face some complications related to these procedures. Most are associated with uncontrollable variables, whereas others may be associated with technical errors.

Minor complications, such as seroma, prolonged bruising, and swelling, are the most common complications (6%–7%), usually occurring after drain removal. All of them can be solved with local therapy and external ultrasonic therapy (3 MHz). Less frequent complications include infections, bleeding, flap necrosis, and/or fat necrosis (2%–3%). In almost all cases, flap loss should be treated conservatively with debridement, local wound care, and healing by secondary intention. In our series,[11] delayed umbilicoplasty was associated with a decreased incidence of flap problems.

Mini Lipoabdominoplasty (FIT Mommy)

Some patients are not suitable for a full lipoabdominoplasty because of limited skin excess, but liposculpture appears to be insufficient. This is why we described the dynamic definition mini lipoabdominoplasty.[12] The procedure was designed for those patients who needed a little abdominal fat pad resection as well as high-definition liposculpture to achieve optimal results.

Markings

Markings for fat removal and abdominoplasty are identical to what was described for EVA. To predict where the rectus abdominis muscles are going to be located after the surgical procedure, the superior and inferior insertions of the rectus abdominis are marked in contraction, and a continuous line is drawn between these 2 points. The last lines are called dynamic lines, as they recreate the active movement of the muscle (**Fig. 8**).

High-definition liposculpture Once the patient is marked, we start liposculpture by performing

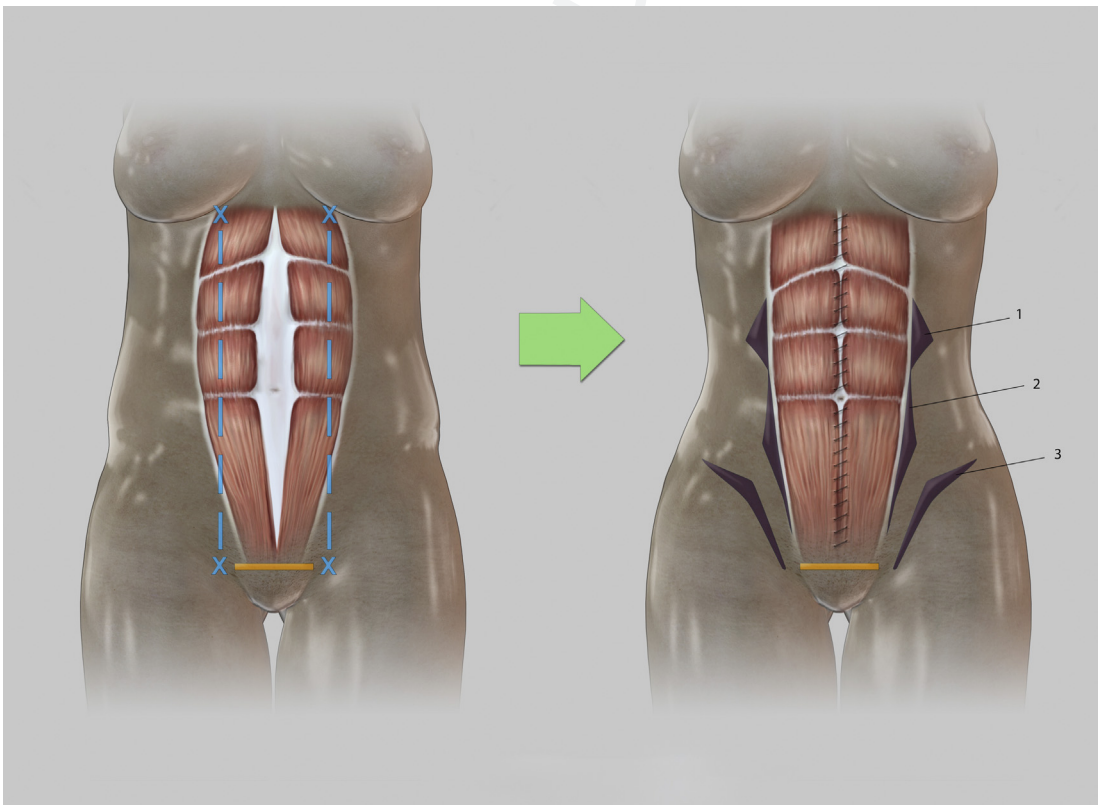

Fig. 8. FIT Mommy makings. Similar to EVA, the rectus abdominis muscle must be marked in the resting position (*left*) and in active contraction (*right*) to predict the position of the lateral border after plication. Additional definition of the subcostal (1), semilunaris (2) and suboblique (3) triangles could be done if necessary. Remember that general markings (negative spaces and transition zones) must be made for a 360-degree procedure.

stealth incisions (4–5 mm) over hidden anatomic creases and grooves (eg, posterior axillary fold, elbow crease, infragluteal and intergluteal crease, inframammary fold, and the supra pubic region medial to the lateral border of the rectus abdominis muscle). Silicone ports are fixed over the incisions and each area is infiltrated with standard tumescent solution (1000 mL of normal saline, 20 mL 1% lidocaine, and 1 ampoule of epinephrine 1:1000), in the superficial and deep fat layers. Fat emulsification is performed with third-generation ultrasound (VASER), blended between the superficial, intermediate, and deep fat layers with 3.7-mm 2-ring probes. In the superficial and intermediate layer, VASER is used in 80% pulsed mode, whereas in the deep layer it is used in 80% continuous mode. Deep lipoplasty is performed in the lateral and mid region of the abdomen using 3.0-mm and 3.7-mm long cannulas. The waistline area is suctioned by 4.6-mm, 3.0-mm curved, and semi-curved cannulas. Superficial lipoplasty is performed for definition of the rectus (the predicted lines, or dynamic lines) and oblique abdominal muscles with the alba line, with small cannulas (3.0, 3.7 mm). By using a small-diameter, low-trauma hole pattern, the vascular injury over the flap is diminished.

Mini lipoabdominoplasty After liposuction, a transverse incision over the supra pubic region is made, in the same position as the Pfannenstiel technique described for cesarean surgery.[22] The fold over the pubis marks the horizontal section of the skin in the superior border of the pubic hair, following a convex curved line, 10 to 12 cm long. The anterior abdominal flap is raised from the pubic incision to the xiphoid process, releasing the umbilicus from its base to access the upper abdominal flap. Hemostasis is carefully done in the flap and the rectus abdominis muscle is plicated in 2 layers: double x stitches and later a running suture (absorbable). The plication is carefully performed, avoiding overcorrection of the muscle, otherwise the definition will fall in a nonanatomic place and might look like a “double” rectus abdominis muscle. If more plication were needed, then transverse muscle plication could be performed bilaterally in the lower abdomen (**Figs. 9–11**). Q9

Finally, the flap and the umbilicus are fixed to the muscular fascia with absorbable running suture. In the upper abdomen, the running suture must grab the dermis of the flap to increase the definition, whereas in the lower abdomen the stitches include only the deep fat of the flap. Silicone negative-pressured drainage is placed between the flap

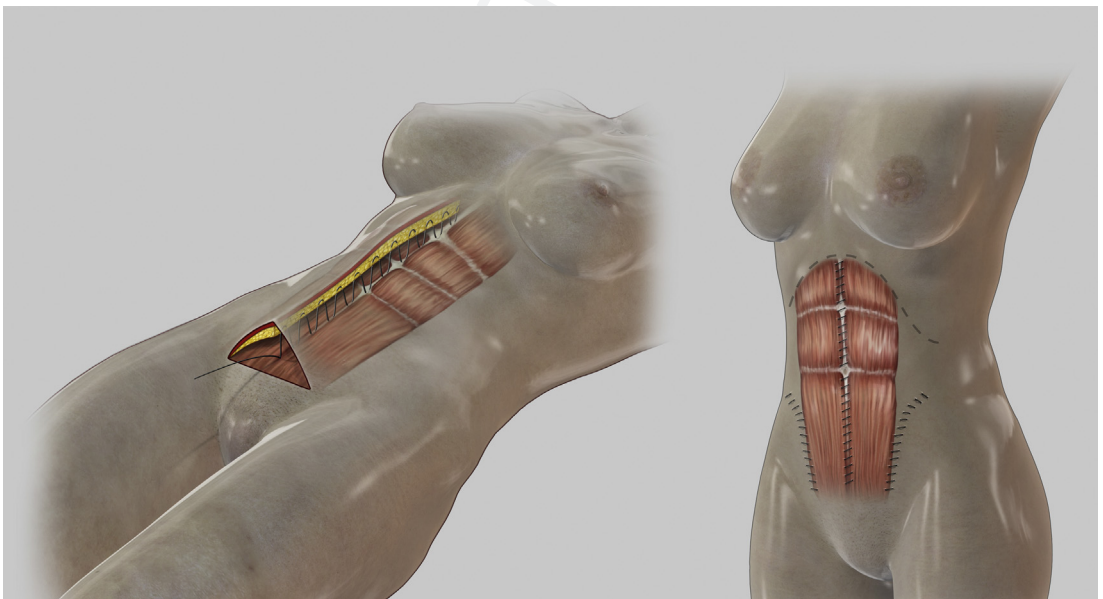

Fig. 9. Rectus abdominis muscle plication. Double stitching and later a running suture are performed to define the linea alba. Transverse muscle plication could be performed bilaterally for additional definition if requested by the patient.

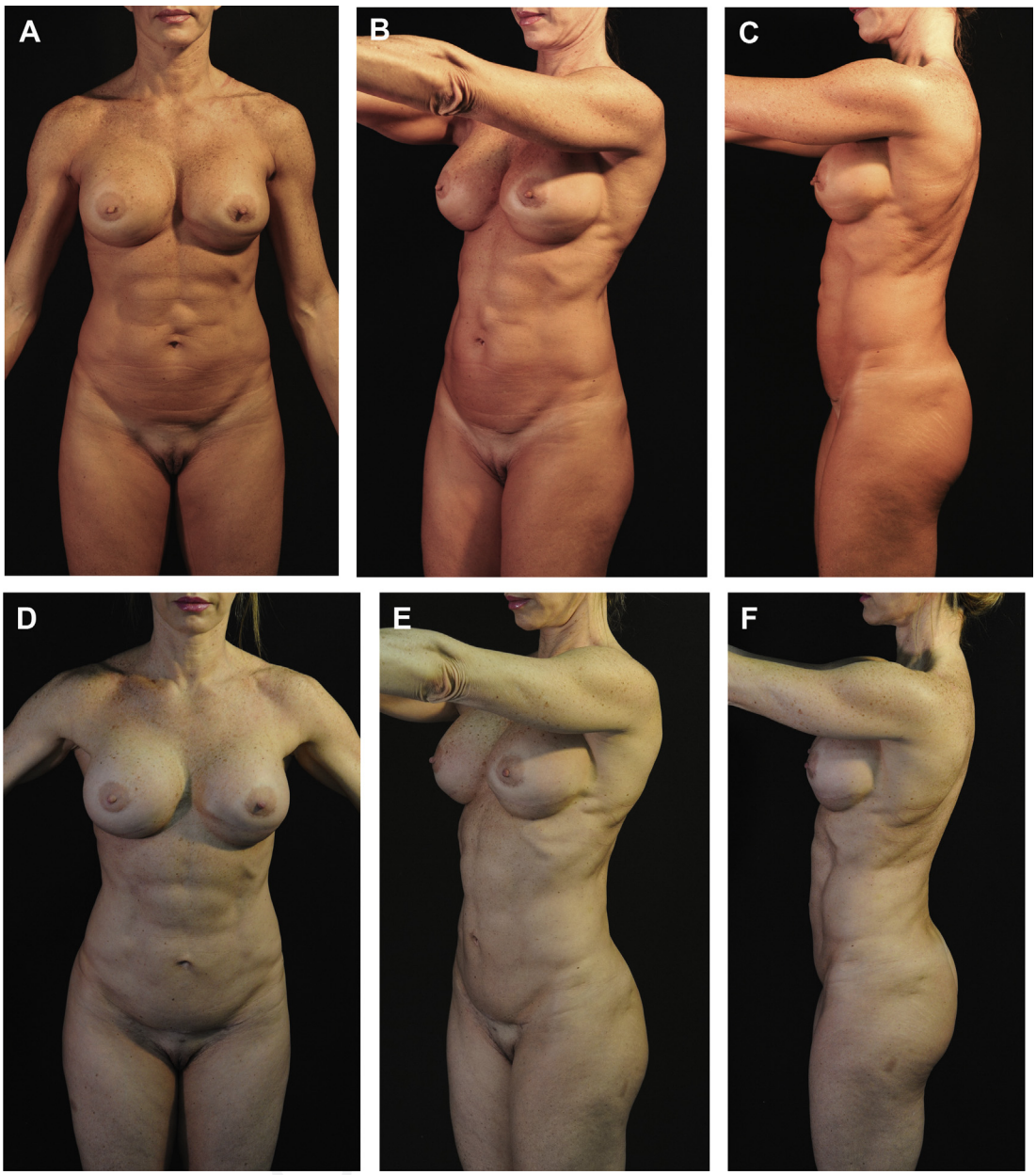

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Fig. 10. A 44-year-old woman. This patient's athletic preoperative state (*A–C*) is affected by postdelivery diastases of the rectus abdominis muscle and an evident supraumbilical hernia. FIT Mommy procedure allowed us to primarily correct the wall defect and improve the athletic and muscular appearance of the abdomen after muscle plication (*D–F*).

and the fascia. The closure is made from deep to superficial layers, excess fat and skin tissue is removed, and the wound sutured. Deep layer aspiration could be done for further debulking. Superficial layer aspiration completes the procedure to define athletic depressions, such as the linea alba, the lateral borders of the rectus, and the oblique muscles.

Fat grafting

Fat harvesting was made with a 3-mm blunt cannula to an empty, sterile bottle trap with 1 g of cefazolin added. Decantation process was achieved for fat-cell separation from the saline and serum and blood components. The high-density supernatant was fully recovered for selective fat grafting. Lipoinjection was performed with

Fig. 11. A 38-year-old woman. FIT Mommy was performed. The postoperative scar is almost invisible and the new athletic and slim shape of the abdomen (*C*, *D*) has completely changed, compared with the preoperative appearance (*A*, *B*).

a 3-mm blunt cannula, to restore the aesthetically pleasant anatomy, distributed in hips, buttocks, deltoids, and calves. Zones lacking projection or desired for augmentation were grafted in the subcutaneous and/or intramuscular layers.

Postoperative care Postoperative care is identical to the EVA procedure.

Complications Minor and major complications are similar although less frequent than those associated with the EVA technique. Skin burns are prone to occur if not correctly advised when performing VASER emulsification. Constant movement of the tip of the cannula and wet towels near ports help to prevent them. If present, each patient must be individualized and treated according to the type of lesion. Asymmetries might also occur if adequate markings are not performed or followed intraoperatively. Constant comparison in the operating room and an experienced surgeon makes such problems rare.

DISCUSSION

EVA lipoabdominoplasty was designed to address the pitfalls described by Lockwood and expanded by the observation of traditional techniques. The use of internal ultrasonic devices combined with low-trauma–designed cannulas allows us to achieve (1) better lateral abdominal superficial and deep liposuction, creating a defined waistline and lateral skin retraction; (2) deep liposuction and superficial ultrasonic release of the central flap, which addresses the tension over the central flap, migration, and hypertrophic scars and the pubic hair displacement; and (3) muscular definition creating the natural concavities of the abdomen, avoiding the "tense"-looking abdomen. How to deal with patient with large amounts of intra-abdominal fat remains an unanswered question. Extra fat resection over the upper abdomen would endanger the flap, as well as a tighter upper abdominal plication increases the risk plication failure and of increasing intra-abdominal pressure.

Large liposuction volume extraction (>5000 cm^3) with flap resection has been associated with blood loss resulting in anemia; however, transfusions are considered only when there are symptoms of anemia (ie, tachycardia, low blood pressure, headache, dizziness, and weakness).

The implementation of a neoumbilicoplasty technique mostly resolves major conventional abdominoplasty concerns. We can choose the umbilical position, short distance between the navel and the scar is not a problem. An inverted T lipectomy scar can be pulled down and converted in a linear scar while doing a delayed neoumbilicoplasty, leaving a better scar and navel position. Umbilical scarring either with larger than normal navel or constricted scar, navel hyperchromia, and residual umbilical hernias are rarely of concern; however, the neoumbilicoplasty may create a new kind of pitfall. Neo umbilical failure can occur. Fortunately, a new neoumbilicoplasty can be done later. Although umbilical reconstruction delay is not standard practice, it may be necessary in cases of questionable flap viability.

EVA is a safe and reproducible technique to perform abdominoplasty with the advantage of the high-definition liposculpture outcomes. Aesthetically pleasing results can be achieved and an athletic contour can be achieved when desired.

Fit Mommy tuck is a new approach for those patients who do not meet criteria for EVA but do need some kind of excisional procedure. Some reports have described a partial abdominoplasty or "limited abdominoplasty," but for some women this might be not the best aesthetic solution. Although perhaps this new technique is easily learned, reproducible, and results in less morbidity and in selected patients it provides a better aesthetic outcome than a full abdominoplasty.

DISCLOSURE

The authors did not have financial interest nor receive any financial support of the products or devices mentioned in this article. All other authors declare that they have no conflicts of interest.

CONFLICTS OF INTEREST

Dr A.E. Hoyos was an unpaid consultant and speaker for the product development team of Sound Surgical Technologies (SST) system and cannulas (now: VASER© 2018 Solta Medical - Bausch Health Companies Inc.) up to May 2013. He receives royalties for the liposuction kits named after him.

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