

Discussion of One-Stage Combined Postbariatric Surgery: A Series of 248 Procedures in 55 Cases

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With the recognition of the complex and intertwined nature of surgery to correct deformity after massive weight loss (MWL), the need for thorough planning, organization for multiple operations during a single session has become routine [1]. Improved execution, convenience, economics and/or patient preference led me to single-stage high-quality surgical rehabilitation averaging 8 h in a series of 59 patients [2]. Single-stage total body lift, however, has never gained broad acceptance as cosmetic plastic surgeons rarely team up. Additionally, MWL patients are a high-risk patient population, and the purported benefits did not measure up to increased case morbidity.

Nevertheless, this discussant remains faithful to the principle of comprehensive surgery to reverse all deformity, which is ultimately individualized by patient preference. In other words, “Comprehensive body contouring surgery coordinates multiple procedures for complete artistic rehabilitation in as few stages as safely possible” [3], while in the ideal patient that may be accomplished in one stage, comprehensive contouring usually requires two to three multiprocedural operative sessions accompanied by third-generation ultrasonic-assisted lipoplasty. Favoring autogenous tissue reshaping, every planned excision site is

considered for flap or aspirated fat augmentation. Each operative session is usually completed within 4 h without need for blood transfusions.

The preceding article, a retrospective chart review of “One-stage combined postbariatric surgery: A series of 248 procedures in 55 cases,” confirms that multiple body contouring operations with extensive liposuction can be safely performed. Fifty-five motivated MWL patients underwent 248 procedures for an average of 4.51 procedures per session. All patients underwent abdominoplasty with all but five having a transverse lower body lift. Approximately one-third underwent thighplasty, brachioplasty, back roll excision or breast reshaping. Four patients had facelifts. As a sample of esthetic change, one 25-year-old male and female patients are briefly presented with preoperative and 4-month follow-up photographs. From the series, there were no life-threatening morbidities. Two patients (3.6%) suffered minor abdominal wound dehiscence, and 18 (32.7%) patients experienced wound dehiscence with seroma drainage. As no circumferential upper body lift or reverse abdominoplasty was performed, the conflict of competing wound closure vectors across upper and lower body was avoided.

Comments are directed to the three following aspects:

1. The authors' execution of multiple procedures.
2. The authors' novel technique of tumescent liposuction, followed by dermolipectomy and an imbrication closure.
3. Patient outcomes.

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The Authors' Execution of Multiple Procedures

The authors emphasize a thoroughly planned approach with two to three operative teams. More detail on how these complex cases proceed would be instructive. Since liposuction plays a prominent role, is it performed simultaneously in multiple locations, and remotely, concomitant with excisional surgery? For the latter, great care needs to be taken to avoid wayward surgery while the patient shakes under cannula thrusts. If the same operation such as mastopexy is being performed simultaneously on either side of the table what safeguards are in place to obtain symmetry? While the authors proclaim two experienced surgeons mandatory, this is a luxury that in my practice I substitute with a second surgeon who is simply skilled, compatible and previously exposed to the lead surgeon's technique. Hence, our complex cases are scheduled upon the availability of University of Pittsburgh senior residents. We also prefer prone followed by supine position, which provides optimal patient access for several operative teams to work simultaneously. We have also embraced conservative buttock fat grafting. If there is inadequate posterior adipose for fat harvest to complete the buttock augmentation, we avoid one position change by simply harvesting fat during the abdominoplasty, complete all anterior operations and then end the operation prone in a slightly jack knife position.

The Authors' Novel Technique of Tumescent Liposuction, Followed by Dermolipectomy and an Imbrication Closure

Liposuction was used to both cosmetically reduce non-excised tissue and evacuate fat from excision sites. What is the volume of tumescent injection for estimated fat removal and is it different between the sites for excision and cosmetic debulking? For the most part, skin was removed through an avulsion dermolipectomy along Scarpa's fascia. The mostly defatted connective tissue was then closed with 1–3 layers of monofilament absorbable imbricating sutures. Perceived reduced drain output, seroma and swelling were attributed to preservation of considerable connective tissue and neurovascular structures. The description of technique, accompanied by several intraoperative photographs, is inadequate for us to adopt that nonconventional procedure; details regarding operative technique should be expanded.

The only reference to liposuction-followed-by-tissue-avulsion is a personal communication with the authors' mentor and retired plastic surgeon Luis Vasconez, M.D. Absent any references to publications, upon request, Luis was kind enough to share his technique video. Following

substantial but not radical liposuction of adipose between dermis and the thickest layer of Scarpa's fascia, the skin cut perimeter incision is completed with scissors. While pulling on attached towel clamps on the lower abdominal flap inclined nearly 180°, and Dr. Vasconez pushing down on the flap bed and exclaiming “pull, pull, pull”, the surgeon rips the unwanted tissue along a bloodless fascial plane. I suspect this technique works best along the lower anterior torso as shown in the video. I doubt such a single defined Scarpa plane is found in the back. The imbricating closure technique was not shared.

I am unfamiliar with flap avulsion after liposuction, but I can strongly endorse radical excision site liposuction of the upper arms and thighs followed by scalpel-assisted avulsion of the skin. Drains are avoided as well as seroma, lymphocele and prolonged distal swelling.

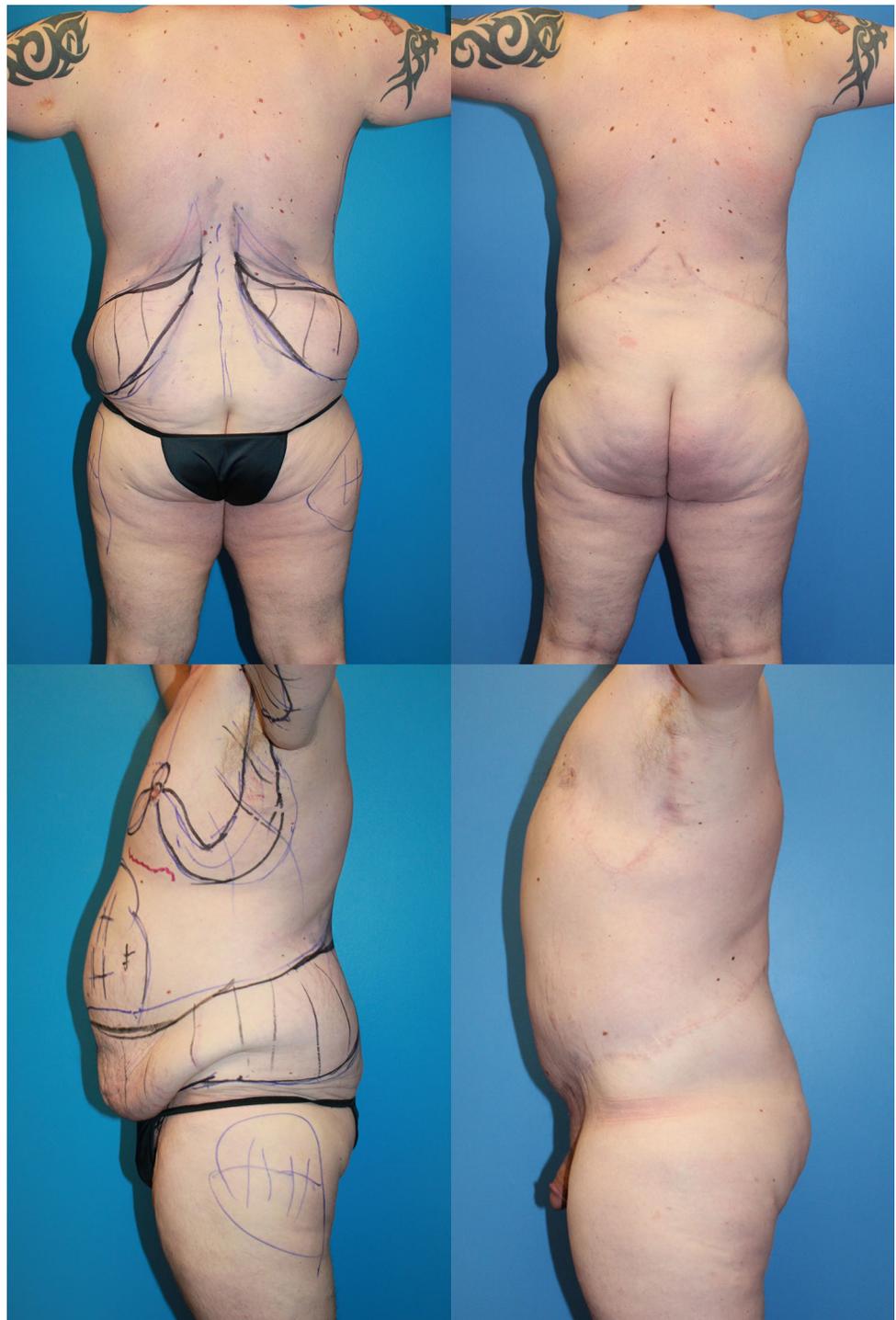
Liposuction was liberally performed. As such, the authors' dose of xylocaine was hard to understand when considering that they do not exceed 22 mg/kg. They use xylocaine 2%, but do not note volume added per liter. For a 50-kg person at 22 mg/kg, the total mg is 1100. That means 52 cc.'s of 2% xylocaine would be divided among 3 or more liters of saline. This low dose of xylocaine is unlikely to have a postoperative anesthetic effect. As traditional liposuction is more traumatic than excisional surgery, late hemorrhage and swelling are problems. The authors' need to hospitalize for 3–5 days is understandable.

Patient Outcomes

Finally, regarding results, the authors found that each multiprocedural patient has greater composite chance for a complication, but that each separate operation had a low rate of complication, which was consistent with our experience [2]. Wound dehiscence with seroma drainage in 18 patients (32.7%) seems high, but is acceptable because those seromas occurred on the ischemic mid-abdominal closure, at the intersection points of the vertical and transverse scars of the breast and limb operations.

To demonstrate their esthetic results, the preoperative and 4-month follow-up photographs were compared in two mild cases of excess skin and adipose in moderate weight loss 25-year-old male and female patients. The male undergoes an unorthodox multiple-stage correction of his gynecomastia along with a fleur-de-lis abdominoplasty, lower body lift and isolated removal of a back rolls. The female had an abdominoplasty with a lower body lift, isolated excision of back roles, mastopexies and limited brachioplasties. The best results are anticipated in such cases, but these were mediocre. Pre- and postoperative results were difficult to compare because of different arm positions and backgrounds. Importantly, at only 4-month

Fig. 1 Single-stage total body lift in a 38-year-old after a 200-pound weight loss male (left). Preoperative markings for lipoabdominoplasty, oblique flankplasty, L-brachioplasty, boomerang pattern correction of gynecomastia and J-torsoplasty (right). Two-year result shows correction of all deformities with a much narrower waist and acceptable scarring



follow-up, they by no means represent the final outcome. As such, I am not encouraged to adopt the authors' technique of liposuction followed by avulsion.

By their design, many procedures are inadequate. Upper arm and thigh excess are removed transversely through a long vertical excision and then the proximal dog ears are excised horizontally. Preplanning for a wider tightening proximal transverse excision for either arm or thigh more

completely treats the deformity. Inadequate removal of excess chest skin forced a second procedure to correct the gynecomastia, leaving asymmetrical nipple areolar complexes. The woman's breasts and upper body are approached by mastopexy and by separate transverse excisions of mid-back skin excess. Combining the two operations with a reverse abdominoplasty is more effective [2, 3]. The combined highly visible scars of the FDL abdominoplasty

and transverse excision gynecomastia are not esthetic. I still feel that an FDL abdominoplasty is a poor esthetic choice and should be avoided whenever possible [4].

At 4 months, both patients exhibit lower abdominal and mons pubis fullness, possibly relate to retained adipose and skin laxity, and a halfhearted attempt at reducing the mons laxity. Our three-sided picture frame approach to monoplasty would solve that problem [5]. The lower abdominal fullness seen in both patients may be a sequela of incomplete excision site liposuction and retention of the subscapa's layer of fat after skin and superficial adipose avulsion. Even the authors were critical of their inadequate management of the waist in their male patient (see legends of Figs. 8–10 in previous article). Both patients are left with elongation of their gluteal cleft and no improvement in the flanks, despite visibly high and wide lower body lift scars. Until our lower body lifts were modified to oblique flankplasty (Fig. 1), my patients were often left with similar deformity [6].

Conclusion

Based on inadequate new contours, residual skin laxity, breast and NAC asymmetry, poor scarring and inadequate follow-up of 4 months, I am not tempted to adopt the

authors' incompletely described liposuction and dermolipectomy approach. They may be congratulated, however, for demonstrating the safety of their complex operative sessions. Organized team surgery is the only way to go, and your patients are much the better cared for it!

Compliance with Ethical Standards

Conflict of interest The author declares that he has no conflict of interest.

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