

Cellfina observations: pearls and pitfalls

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■ Abstract

In our experience, patients tend to consider any undesirable feature on their body from the knees to the umbilicus, and even the arms, to be cellulite. It is important to educate prospective patients that Cellfina (Ulthera, Inc, Mesa, Arizona) most effectively treats dimple-type cellulite, whereby fibrous bands inserting into the undersurface of the skin cause a puckered appearance. In this brief communication, we would like to share our experience in optimizing outcomes with Cellfina for the treatment of cellulite.

Semin Cutan Med Surg 34:144-146 © 2015 Frontline Medical Communications

We have been fortunate to be among the first clinicians in the United States selected to offer Cellfina (Ulthera, Inc, Mesa, Arizona) for the treatment of cellulite. Cellfina is a novel improvement on subcision, a tissue release technique that has been utilized for many years.¹ Although needle subcision can be effective for rolling acne scars, its use for treating cellulite is not widely practiced due to the general inconsistency of the results and morbidity of the procedure.² Cellfina has refined subcision with both depth and area control providing reproducible, consistent results with little downtime. In this brief communication, we would like to share our experience in optimizing outcomes with this technology.

The consult

As with most cosmetic procedures, patient selection is of paramount importance to the success of the Cellfina treatment. In our experience, patients tend to consider any undesirable feature on their body from the knees to the umbilicus, and even the arms, to be cellulite. It is important to educate prospective patients that Cellfina most effectively treats dimple-type cellulite (ie, the fibrous bands which cause a puckered appearance). Cellfina offers the opportunity to release these bands thereby resulting in a smooth appearance of the skin. Cellfina can also be effective at treating short,

horizontal, depressed lines on the thighs and buttocks.

The optimal candidate is a patient in their 20s to 50s, with minimal to absent skin laxity, and at an ideal, stable weight. Although cellulite is uncommon in men, the authors have successfully treated a male patient in his 40s with the Cellfina procedure. We have turned many patients away who desired Cellfina for the treatment of anteroinferior thigh ‘cellulite,’ which really represents laxity. The best nonsurgical options for these patients include energy devices such as radiofrequency and high-intensity focused ultrasound. Treating a patient with excess laxity could result in a worsening of its appearance. Moreover, patients should be counseled that Cellfina cannot be used to treat long, horizontal lines, especially in the infragluteal bulge, (ie, the ‘banana roll’). These lines are usually inferior to a fat protrusion, and performing the Cellfina procedure on these sites could actually exacerbate the appearance. Smaller horizontal lines with a deeper center indicative of a fibrous attachment have been treated successfully.

We have had some modest success in treating patients status-post traumatic fat necrosis of the buttocks or after liposuction where too much fat was removed from a single area, the so-called ‘liponots.’ The improvement may be minimal if any, so no promises of results should be made to the patient; however, it appears that the trauma to the subcutaneous tissues induced by the Cellfina procedure can potentially provide some benefit in these special cases. Steroid atrophy has been successfully treated without the need for fat grafting (see Figure 4 in Kaminer MS, et al. *Dermatol Surg*. 2015;41(3):336-347).³

Lastly, it is important to educate patients regarding the longevity of the results. As of the summer of 2015, Cellfina is cleared by the US Food and Drug Administration for improvement lasting at least two years; however in 2010, one author (JG) followed up with patients who had no recurrence of their cellulite lesions at 40 months. These long-lasting results could be attributed to the fact that the hormonal milieu purported to cause cellulite at puberty is no longer present in adulthood.

The procedure

A patient undergoing a Cellfina treatment will have the areas of cellulite marked while standing. Cellulite disappears when laying down—which is illustrative of the root cause not being fat, but tension under the skin caused by fibrous attachments. Marking the patient is actually a crucial part of the procedure. Ensure that markings on cellulite sites are made thick with a permanent marker (eg, gentian violet) so they do not rub off while prepping during the procedure. When marking, it is necessary to have the premarked, standardized photos printed and in hand, as well as appropriate overhead lighting to accentuate contour irregularities. The authors have also employed large, handheld lights to assess contour. Hav-

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ing an assistant in the room for additional perspective is helpful. Palpate the skin to assess the depressed cellulite lesions. Assess the patients in three dimensions, from above and below. Ensure that the patient has seen her marked photos so they understand the plan, and can confirm that all of the bothersome lesions they may be aware of in the treatment area have been identified and marked. Once the patient is in a prone position and prepped, cellulite marking of lesions that seemed right near their midline are now centimeters lateral, so having these marked photos in the operating room is key to maintaining proper orientation. Having the patient twist their waists or flex their gluteal muscles may expose additional cellulite dimples. Our experience has shown that one should proceed with caution when treating dimples not present at rest, as this could result in increased laxity. The authors have safely treated nearly 50 sites at one visit; however, the typical patient has a range of 15-30 sites.

Following marking, a dilute anesthetic solution containing lidocaine and epinephrine is infiltrated using the Cellfina System's 22-gauge multi-hole needle at a depth of 6 mm. Once all the areas have been infiltrated with anesthesia, the system is then used to release the tissue underneath the marked areas. This procedural flow enables delegation of anesthesia in some centers. With regards to the actual Cellfina procedure, we prefer to prep with betadine, as it does not remove the preoperative markings like chlorhexidine. Also, the liquid preps can render the skin a bit slippery, resulting in suboptimal acquisition in the vacuum chamber if not allowed to dry thoroughly. In our experience, with the exception of a few sensitive points, pain is on average 3/10 with the tumescent anesthesia solution we prefer, and the subsequent release of the cellulite bands is a 0/10 to 1/10. For a patient with approximately 20 sites of release, a 500 mL bag of saline should suffice with 50 mL of 2% lidocaine, 1 mL of 1:1000 epinephrine and 15 mL of 8.4% sodium bicarbonate. Since the procedure is so well tolerated, in our personal experience, preoperative anxiolytics or analgesics are unnecessary, though some colleagues have employed anxiolytics in select patients.

Prior to beginning to anesthetize the patient, ensure that the needle is placed firmly on the plastic handle used for guidance, as it is not a luer lock and could pop off. During the procedure, the anesthesia needle should be introduced into the skin bevel up. There is no need to compress the Cellfina vacuum chamber when stabilizing with your free hand, and uneven pressure could cause the anesthesia needle or blade to enter the skin obliquely up towards the skin surface potentially causing damage. Much like we do in other skin surgeries, overlapping the next site of anesthesia with one just infiltrated reduces discomfort of the needle entering the tissue and consequently enhances patient comfort. Ensure that the skin suctioned into the vacuum chamber is flush against the inside edges, especially in the septum area of needle/blade entry. Failure to do so will result in the anesthesia needle or treatment blade entering the skin from the side at an oblique angle instead of perpendicular, resulting in a larger entry hole and perhaps a scar. Thighs with taut skin and less subcutaneous tissue can be more challenging to acquire. In these cases, it is helpful to have an assistant compress from the sides or above and below the vacuum chamber to facili-

tate tissue acquisition. Increasing the suction pressure may also aid in tissue acquisition.

Letting the system do the work with a light touch is recommended. Resist the urge to utilize brute force during the fibrous band release. In contrast to performing subcision for acne scars where you can appreciate the release of the tethers and even hear an audible pop with release, you will feel no resistance sweeping from side to side as the razor thin blade cuts the fibrous bands of tissue, and you hear nothing save the noise of the motor. Get in the habit of turning off the motor before retracting the blade. Failure to do so could result in damage to the blade upon retraction and the need to open another sterile kit to complete the treatment.

Ideal technique involves performing releases from above or below, a cranial or caudal vertical orientation (perpendicular to the linear depressions) when possible. It is important to avoid the connection of complete release sites at the same depth. For that reason, two depth choices are available. The default depth of choice is 6 mm, but if there is a site too close, perform the adjacent release at 10 mm of depth, perhaps in a different vertical orientation. During the early development of the device (by Cabochon Aesthetics, Inc), aggressive connection of sites at a single depth led to larger contiguous areas of release, which took longer to heal. One author (JG) saw several of these patients at follow-up with seromas that required drainage. While it is common with subcision, some of these patients experienced longer-term sequelae at these sites, which we termed "indurations."² Though not visible on inspection, they were appreciable on palpation and were bothersome to patients. For that reason, treating physicians are encouraged to not connect sites at the same depth and use the smaller release areas (P1) when possible. The vacuum chamber has now been smartly refined to include raised detail of the release areas, which leave temporary indentations in the tissue, further allowing clinicians to see exactly where they have just treated and thereby avoiding overlap. Since the device and technique have been refined and since the FDA pivotal trial which included 55 patients, no seromas have been reported.³ Smaller cellulite lesions or horizontal depressions can be treated with a partial release, whereby the motor hand piece is moved laterally half the distance to the hard stop edge of the arc track in each direction. This technique follows the mantra of performing the minimum amount of tissue dissection necessary to achieve an optimal result.

Post procedure

Bruising is to be expected, though some fortunate patients experience little to none. No formal compression garments are necessary, but compressive garments (eg, bike shorts or yoga pants) should be worn as often as possible during the two weeks following the procedure. Immediately post procedure, patients are dressed with absorbent bandages underneath the compressive garments due to leakage of anesthesia fluid, though less anesthesia volume is typically used with Cellfina than with tumescent liposuction. Patients should maintain their post-procedure garments until the next day. Rocking back and forth on a hard surface chair during this period helps the anesthesia solution drain. Soreness has been described to us as the equivalent to falling down on your backside and can last

for several days, but has not prevented any of our patients from performing their normal activities of daily living. Prophylactic antibiotics are not routinely given, though patients should be careful about cleanliness including using antibacterial wipes on their toilet seat. Patients are advised not to swim for a week and sun exposure is discouraged during the healing phase. Some physicians limit exercise for 3 to 4 days post procedure in order to reduce swelling and bruising. Rarely, patients follow-up with small indurations, probably representing hematomas. These will resolve spontaneously; however, you can hasten their resolution by administering a small volume of intralesional triamcinolone 5 mg/ml if the patient is in the office or patients can firmly massage these sites at home.

With proper patient selection and technique, the Cellfina procedure delivers outstanding results and patient satisfaction. These are our preliminary observations with the technology; and as Cellfina is adopted by more clinicians, the authors look forward to learning more from our colleagues to further optimize outcomes.

References

1. Orentreich DS, Orentreich N. Subcutaneous incisionless (subcision) surgery for the correction of depressed scars and wrinkles. *Dermatol Surg.* 1995;21(6):543-549.
2. Hexsel D, Dal'Forno T, Soirefmann M, et al. Reduction of cellulite with subcision. In: Alam M, Pongprutthipan M, eds. *Body Rejuvenation*. New York: Springer; 2010.
3. Kaminer MS, Coleman III WP, Weiss RA, Robinson DM, Coleman WP 4th, Hornfeldt C. Multicenter pivotal study of vacuum-assisted precise tissue release for the treatment of cellulite. *Dermatol Surg.* 2015;41(3):336-347.