

Lipodissolve Mesotherapy Is Gaining Popularity

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ORLANDO — When used correctly and with proper training, the Lipodissolve method of mesotherapy can be a good way to treat localized fat deposits, according to Dr. Edward Szachowicz II.

Said to permanently dissolve localized fat, mesotherapy is increasingly popular—last year, about 29,000 Americans had the procedure, six times as many as the year before, according to the American Society for Aesthetic Plastic Surgery (ASAPS).

Dr. Szachowicz, a facial plastic surgeon in Edina, Minn., performs Lipodissolve mesotherapy regularly and has undergone the procedure himself.

Lipodissolve, like many other mesotherapy methods, uses a phosphatidylcholine/sodium deoxycholate (PCDC)-based solution. Studies show that no serious side effects have been reported in more than 10,000 treatments in Europe and the United States with PCDC, he reported at the annual meeting of the Florida Society of Dermatologic Surgeons.

The term Lipodissolve was created to describe the procedure developed by the the American Association of Nonsurgical Aesthetics, LLC and has been submitted for trademark application, according to information on the ASNA's Web site. The American Society of Aesthetic Lipodissolve, LLC is touted with being the original developer of the procedure.

The Lipodissolve method typically involves multiple injections using a grid pattern in the subcutaneous fat of the area being treated. Since the chemicals used are not selective—and have the potential to dissolve unintended targets—precision is required, stressed Dr. Szachowicz, who noted that he has no financial interest in Lipodissolve or any of the instrumentation used for delivering Lipodissolve mesotherapy.

He typically injects no more than 15-20 mL of PCDC into facial areas, injecting at 1-cm intervals using a 30-gauge needle. Body areas are injected at 1.5-cm intervals using a 26-gauge needle. During treatment on the face, the fatty tissue should be lifted away from the deeper struc-

tures—away from the mandibular nerve to avoid injecting into the subplatysmal muscle.

The treatment can be used in a number of areas and for a number of purposes, he said. It has been used for dissolving fat in the jowls, submental region, tricep “bat wing” area under the arms, abdominal region, and saddlebag area of the thighs. Although it works better in fleshy, rather than fibrous fat, it can be used for lipomas, and is particularly useful in those with multiple lipomas or lipomas in critical areas.

Lipodissolve also can be used to correct problem areas following fat transfer. “You can titrate this in very small doses and get very precise contouring,” he said.

The treatment can be useful for correcting problems that might occur with flaps or grafts, such as lumps, pincushioning, and dog ears, and offers a nice alternative to surgical revision.

Although Lipodissolve mesotherapy has been touted as a “no downtime” instant fix for small pockets of unwanted fat, the reality is that pain and stinging, extensive swelling, bruising, and tingling occur. Furthermore, depending on the patient and area treated, up to six treatment sessions at 4- to 8-week intervals may be needed to achieve the desired result (usually only one to two sessions on the face). Ultrasound treatment or lymphatic massage is recommended twice weekly for about 5 weeks beginning a week after the treatment to help smooth the area and provide a better result.

A number of organizations, including the American Society of Plastic Surgeons, the American Society for Aesthetic Plastic Surgery (ASAPS), and the American Society for Dermatologic Surgery, have cautioned against their use until better safety data are available (see box).

Since most mesotherapy solutions are comprised of the soy-derived PCDC, it has been argued that they are supplements and therefore not regulated by the Food and Drug Administration. However, because the substance is injected rather than ingested orally, the claim has been disputed.

The FDA has approved a study to evaluate the safety and effectiveness of the

Most Withhold Support of Mesotherapy

Because of the lack of solid data on the safety and efficacy of mesotherapy, an increasing number of organizations are taking a stand against its use.

In October, the Physicians Coalition for Injectable Safety issued a “Consumer Safety Alert” regarding “fat-dissolving injections,” stating that injectable treatments touted as a means of reducing localized body fat are unproven and not approved by the FDA, and should not be considered an accepted medical or cosmetic treatment.

The American Society for Aesthetic Plastic Surgery (ASAPS), which is a member of that coalition, issued its own statement in May (*SKIN & ALLERGY NEWS*, June 2007, p. 13), also warning patients against the use of injection fat-loss treatment. A number of other organizations also have refused to endorse the therapy until more data become available.

A January 2006 technology report from the New Technologies Subcommittee on Fat Transfer and Liposuction of the American Society for Dermatologic Surgery (ASDS), noted that although mesotherapy “may ultimately prove to be a viable adjunct or option . . . further study is warranted before this technique can be endorsed.

“There is a paucity of available data and presently there are no randomized, double-blinded controlled studies in the literature that unequivocally establish the safety and efficacy of this procedure for medical or aesthetic conditions,” read the report.

A spokesperson for the ASDS confirmed that this statement remains the most recent on the topic from the society.

In a statement, ASAPS noted the upcoming FDA-supervised placebo-controlled study of PCDC-based mesotherapy—which is the type of mesotherapy most often shown to have promise in smaller studies.

Meanwhile, in August, the Kansas State Board of Healing Arts banned the sale and marketing of Lipodissolve, restricting its use to clinical trials. However, a district court overturned the decision before it took effect. The new ruling allows doctors in private practice to give the treatment.

Much of the controversy over the injectables stems from complaints arising when poorly trained individuals administer the therapy, Dr. Szachowicz said, adding that in the right hands, and for appropriate indications, performing and undergoing this treatment can be very rewarding.

PCDC mesotherapy treatment. The FDA-approved study is a small 46-week pilot in which 20 patients will receive injections of PCDC or placebo, according to the Aesthetic Surgery Education and Research Foundation, the charitable research arm of ASAPS, which will oversee the study.

Contraindications of mesotherapy include serious renal disease or inflammatory conditions and immunocompromise. It is also important to watch for a cholinergic response, particularly if using an entire 2,500-mg bottle of PCDC solution. “What you can get is a drop in blood pressure—any kind of vagal stimulation,” said Dr. Szachowicz.

Patients should eat a protein meal be-

fore the procedure to avoid a drop in blood sugar as a result of the cortisol and adrenaline that are released, and the pre-treatment evaluation with a history, physical, and blood pressure measurement should be included in the patient's chart.

Another potential adverse effect is hyperpigmentation occurring as a result of bruising. This is particularly true with bruising below the belly button. Performing the procedure with the patient lying down to alleviate venous pressure can help prevent this.

Training programs for the use of Lipodissolve are available through the ASNA and are essential, Dr. Szachowicz said. ■

Radiofrequency Technology Has Unique Dermatologic Niche

ORLANDO — Radiofrequency technology has a number of properties that make it useful for dermatologic and cosmetic surgery, Dr. Jeffrey Ellis said during a presentation at the annual meeting of the Florida Society of Dermatologic Surgeons.

In particular, high-frequency radio wave energy causes minimal tissue trauma and collateral tissue damage, provides precise dissection and sculpting, and provides excellent hemostasis, said Dr. Ellis of the State University of New York, Brooklyn.

Radiosurgery is his treatment of choice for surgical management of keloid scars, large tumors, cosmetic sculpting of nevi, “scarless mole removal,” and sculpting or carving flaps, said Dr. Ellis, who also is director of dermatologic surgery at North Shore-Long Island Jewish Health System, and who reported that he has received research and/or grant support from Ellman In-

ternational Inc., which makes a radiofrequency device.

Radiofrequency devices have been used in many medical disciplines. The high-frequency/low-temperature radio waves allow cutting, coagulation, and the use of bipolar coagulation.

“Basically, at the tip of the instrument you are generating a high-frequency radio wave that has very high affinity for water. The electrode is inserted into the target tissue, the cell readily absorbs the energy due to high water content, and the cell explodes, creating low-temperature steam, which aids in coagulation while cutting,” he explained.

The process allows for excellent control and preservation of collateral tissue. A number of factors can be manipulated to maximize efficacy, including waveform, power settings, electrode type and size, and amount of time treating the target tissue. Tissue type also plays a role

in the efficacy of radiosurgery.

Waveform, for example, can be manipulated to get different tissue effects. A fully filtered waveform causes very little tissue destruction: If hemostasis becomes an issue, a rectified waveform can be used to cut while also maintaining hemostasis.

Radiosurgery can be performed very quickly, which is another benefit, he said.

Dr. Ellis finds radiosurgery particularly useful for keloids. He described one patient—a young girl with severe bilateral earlobe keloids—who had failed two conventional surgeries, injections, and compression earrings, and who suffered a great deal of psychosocial morbidity as a result of the scars.

Radiosurgery easily removed the keloids, allowing for debulking as necessary, good hemostasis, flap creation for repair, and removal of redundant tissue, he said. ■