Data Validate Some Lipolysis, but Not Mesotherapy

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LAS VEGAS — There are not enough data to recommend mesotherapy to patients, although some evidence supports a specific form—injected lipolysis—for localized fat reduction, according to two presentations at an international symposium on cosmetic and laser surgery.

Mesotherapy is touted for many indications worldwide, including cellulite reduction and pain management. Confusion abounds, however, because people often refer to mesotherapy and injected lipolysis interchangeably, said Dr. Paul T. Rose of Tampa.

“Oftentimes I am asked: Does mesotherapy work?” said Dr. Adam M. Rotunda of the division of dermatology at the University of California, Los Angeles.

“We cannot say it works or does not work—it is such a general term.”

An injected combination of the soy-derived phospholipid phosphatidylcholine (PC) and the solvent sodium deoxycholate (DC) “is well proven” for localized fat synergy, Dr. Rose said. He and colleague Dr. Michael Morgan assessed punch biopsies from a patient after PC/DC injections, and histology showed destruction of fat (J. Cosmet. Laser Ther. 2005;7:17-9).

“There is a profound inflammatory response with neutrophils, plasma cells, and hopefully macrophages to eat up the fat,” he said.

Another study of 30 patients demonstrated some benefit of this combination for correction of lower eyelid bulging (Dermatol. Surg. 2001;27:391-2). Dr. Rotunda said. An open-label study of 43 patients who received a “pretty aggressive” regimen of up to 100 mL PC/DC per treatment session demonstrated some improvements in abdominal fat, he said.

“I’m not impressed with the abdomen—you need a significant amount. I am impressed with jowl-area results,” Dr. Rotunda said. Other commonly treated areas include inferior orbital fat, chins, arms, flanks, lateral and medial thighs, and knees. Even with this evidence, more research is needed. “Most of these studies are unblinded, open case series. But we are moving in the direction of having peer review literature,” Dr. Rotunda said. For example, Dr. David Goldberg and his associates conducted a study in 10 patients who received four monthly injections of multivitamin and conjugated hyaluronic acid for facial rejuvenation (Dermatol. Surg., in press).

“Grossman said that she has found weight loss. If I have a patient come to me and they are markedly obese, I tell them mesotherapy is not an option.”

The therapy can be an adjunct to liposuction or other procedures, he added.

Patients can receive the treatment every 2-4 weeks at up to four areas at a time. “It is not magic. It can be four or five treatments,” Dr. Rose noted. It is important to inform patients that they can get significant swelling and that bruising almost always occurs, he said.

Other effects, such as erythema, burn- ing, tenderness, a jelly-like edema post injection, and nodularity, will go away within weeks, Dr. Rotunda said.

Ultrasound Breaks Up Subcutaneous Fat; May Be Liposuction Alternative

PALM DESERT, Calif. — An ultrasound machine does appear to reduce waist size without changing a person’s weight, Dr. Karyn L. Grossman said at the annual meeting of the American Society of Dermatologic Surgery. The treatment produced an average 2-3 cm reduction in circumference of thighs or abdomens treated and a 3-mm reduction in the fat layer of treated areas, relative to controls, reported Dr. Grossman, who practices in Santa Monica, Calif.

“This is probably a safe alternative to low-volume liposuction,” she said.

The device used was the Ultrasound Contour 1 (Ultrasound Inc., Telford, Pa.). The study enrolled 162 patients who received a single treatment of the abdomen or thighs at one of five centers, two of which were in the United States. Those patients were compared with control patients.

The reduction in circumference of the treated patients became noticeable at 7 days in some patients and was measurable in the overall group by 28 days. In those who had a single thigh treated, the average reduction observed in the treated thigh was 2 cm relative to the untreated thigh at 21 days. That reduction persisted throughout the 84 days of the trial.

“I really can’t imagine that after 84 days the fat is going to grow back,” Dr. Grossman said.

There was a measurable reduction in circumference of the treatment areas in 82% of the treated patients, and 76% of patients expressed moderate to excellent satisfaction with the procedure. Neither the treated patients nor the controls lost any weight as groups during the trial, she added.

Safety evaluation to detect nerve damage or blood vessel destruction was conducted rigorously, and there were no abnormalities observed in any patient. The only adverse events occurred in two patients who experienced burns when treated over the trochanter, probably because the area did not have enough fat, Dr. Grossman said.

The device is not approved in the United States, but it is available in other countries. Dr. Grossman said that she has no financial ties with Ultrasound Inc., but her partner in practice is a paid consultant to the company.

—Timothy F. Kirk