

# Lipolysis Melts Away Appearance of Double Chin

BY DAMIAN McNAMARA

MIAMI BEACH — Phosphatidylcholine injections were found to effectively dissolve submental fat deposits associated with a “double chin” appearance without any significant adverse effects.

Up to five injections of phosphatidylcholine (PC) over 6 months yielded a 40%-50% clinical fat reduction in patients, said Dr. Glynis R. Ablon at the South Beach Symposium.

PC is a linoleic acid with anticollagenase activity that provides antioxidant and antifibrotic benefits in both in vitro and in vivo studies, Dr. Ablon said. PC also has been used to treat hyperlipidemia, cardiac ischemia, and liver disease.

Lipolysis injections are often a combi-

nation of PC and deoxycholic acid (DC), a bile acid converted to a sodium salt that lyses fat cells. DC also is used in medications to reduce gallstones.

Dr. Ablon randomized 44 patients—38 women and 6 men—to a mixture of PC and DC, a DC solution, or bacteriostatic saline. Participants were aged 25-60 years and had mild, moderate, or severe submental fat deposits.

Caliper measurements of fat were made at a point midway between the submental crease and the hyoid bone. Injections alternated to the right or left side with up to five treatments over 6 months.

“We had great results with no significant complications. Patients were extremely happy,” said Dr. Ablon of the University of California, Los Angeles.

This limited study showed 100% improvement and long-term benefit, she added.

All patients experienced some mild burning and edema. The burning lasted 15 minutes or less. The submental edema resolved within 8 days for 96% of participants, she said.

In addition, 28% of the patients reported submental erythema lasting 15 minutes or less; 16% reported discomfort; and 14% reported short-term paresthesia or numbness. No patient experienced hematoma, headache, or systemic complaints.

Additional studies are warranted, said Dr. Ablon, especially large, randomized trials with histologic images to confirm the dissolution of fat. “We are also doing studies of PC and DC for

hips and thighs, as well as for anterior axillae,” she said.

She pointed out that injection lipolysis differs from mesotherapy. With mesotherapy there are “no standard formulations, injection techniques or therapeutic doses, and that is a little frightening.”

“Not only are non-MDs performing this procedure, there are people with no training doing this [mesotherapy],” Dr. Ablon added.

“In our practice, since 2003, we are doing strictly injection lipolysis with PC/DC or DC,” she said.

Advantages of injection lipolysis include no downtime, typically minimal side effects, and use as an adjunct to liposuction.

She disclosed having no relevant conflicts of interest. ■

## New Evidence Indicates Laser-Assisted Lipolysis Results in Skin Tightening

BY DAMIAN McNAMARA

MIAMI BEACH — Sure, it’s nice to tell patients that laser-assisted lipolysis will tighten their skin, but now there is evidence to prove it.

Dr. Bruce E. Katz and his colleagues demonstrated the tightening effects of laser-assisted lipolysis by tattooing a 4-by 4-cm square on the abdomen, arms, hips, or thighs of 30 patients.

At 3 months’ follow-up, a mean 18% reduction was observed in an ongoing, multicenter study, according to Dr. Katz.

“This is the first evidence of skin tightening,” he said at the South Beach Symposium. “And we’ve seen similar findings out to 6 months.”

The investigators also performed punch biopsies to examine the histology at treated sites. Results showed new fibrosis, adipocytes, histiocytes, and markers of fat-cell lysis, said Dr. Katz of the department of dermatology at Mount Sinai School of Medicine, New York.

Patients were treated using the Smartlipo system (Cynosure Inc.), which features a hollow, 1- to 2-mm cannula inserted through a small incision to deliver Nd:YAG laser energy. After the laser liquefies fat cells, they are drained away through the same cannula.

This device combines a 1,064-nm wavelength for a gradual thermal effect and to mediate coagulation of blood vessels, as well as a 1,320-nm wavelength to promote energy absorption by fat and water. For this study, Dr. Katz set the system to deliver 20 W of the 1,064-nm energy and 12 W of the 1,320-nm wavelength.

The tightening results are supported by another study in process by Dr. Barry E. DiBernardo, a plastic surgeon in private practice in Montclair, N.J. Dr.

DiBernardo compared laser-assisted lipolysis with liposuction in a split-treatment study of 10 women.

Dr. DiBernardo tattooed a 5-by 5-cm square on areas to be treated and found 37% greater skin tightening with laser-assisted lipolysis versus liposuction alone at 1 month. “At 3 months, he found 54% greater tightening with laser lipolysis,” Dr. Katz said.

In addition to a stand-alone treatment for skin tightening, the system could be a nice alternative for patients who are candidates for face and neck tightening surgery, Dr. Katz said. Laser lipolysis is indicated for

all areas with localized adipocyte deposits, as well as places where liposuction is indicated but the treatment could worsen skin laxity.

With any technology it is important to ask: “Do the risks outweigh the benefits?” Dr. Katz said. “We saw this in ultrasonic liposuction years ago.”

To find out, he and a colleague assessed the incidence of adverse events and touch-up treatments required by 537 patients treated over 18 months at a single center (J. Cosmet. Laser Ther.



Two studies provide the “first evidence of skin tightening,” with laser-assisted lipolysis. The above patient is shown before and after undergoing the procedure.

PHOTOS COURTESY DR. BRUCE E. KATZ

## Clonidine Helps Calm Anxious Cosmetic Patients

BY BRUCE JANCIN

MAUI, HAWAII — Low-dose sublingual clonidine given before treatment helps calm anxious, tachycardic patients undergoing laser skin resurfacing and other cosmetic procedures, according to Dr. Roberta D. Sengelmann.

“I’ve been using clonidine for about 8 years, since I did my first face-lift. I use it for patients with blood pressures above 130/90 mm Hg. I check their blood pressure after 30 minutes. The clonidine has a bit of a calming, sedative effect. It really is quite effective,” Dr. Sengelmann said at the annual Hawaii dermatology seminar sponsored by Skin Disease Education Foundation. The dose is small, just 0.1 mg of clonidine sublingually. A second dose may be required after about 15 minutes in a larger man.

Dr. Sengelmann, a dermatologic surgeon in Santa Barbara, Calif., added that she finds clonidine particularly useful in patients undergoing lengthier aesthetic procedures lasting 90 minutes or more. But she won’t use the antihypertensive agent in patients with blood pressures below 110/60-70 mm Hg, even if they’re tachycardic and anxious. Instead she uses 10 mg of diazepam (Valium).

Dr. Christopher B. Zachary, session chair, said he has heard of periprocedural clonidine also being used in anxious Mohs surgery patients, adding that it strikes him as an intriguing way to minimize bleeding problems.

“In patients who are obviously a little anxious—maybe they didn’t sleep too well, maybe they were caught in busy traffic—I can almost guarantee that if their blood pressure is up then they will have more bleeding problems,” observed Dr. Zachary of the University of California, Irvine.

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2008;10:231-3). They found a 1% complication rate, including one local infection and three minor burns, all of which resolved, Dr. Katz said at the meeting.

There were 19 touch-up procedures for a 3.4% rate, versus the 10%-12% reported in the liposuction literature. “The most important finding was there were no serious side effects at all,” he said.

Dr. Katz disclosed that he is a Cynosure stockholder. ■