Researchers Seek to Quantify Thermage Efficacy

BY TIMOTHY F. KIRN
Sacramento Bureau

PALM DESERT, CALIF. — The radiofrequency heating technique Thermage is probably the best studied of the technologies that tighten the skin, said Dr. Roy Geronemus at the annual meeting of the American Society for Dermatologic Surgery.

Even so, proving that the Thermage treatment works has been difficult because the effects are modest and it is hard to measure tightening objectively.

Before and after photos are simply too subjective to be of use in evaluating the effects of treatment, he said.

There have been successful attempts to be as objective as possible, mostly by demonstrating that the treatment can lift eyebrows relative to the eye pupil, said Dr. Geronemus, director of a laser practice in New York.

In a study that he conducted using Fitzpatrick wrinkle scores to make the assessment objective, he and his associates found that 57% of patients at one site and 73% of patients at another had an improvement of 20% or more in their scores at 6 months.

The investigators also used a device that attempts to measure skin tension, and found that it recorded a significant improvement in the areas of skin treated, Dr. Geronemus said.

Techniques have also evolved since Thermage was first introduced, and the better procedures have contributed to dispelling some of the skepticism, he noted.

Practitioners now usually use multiple passes at a lower power level, instead of a single pass at a higher power level. The lower-power technique was used in his trial. Many physicians also recommend that a wider tip be utilized (3 cm instead of 1.5 cm). The wider tip was not used in his trial.

Microscopic data appear to show that radiofrequency heating does result in the denaturing of collagen fibers, said Dr. Brian Zelickson, who practices in Min-

Neilopy and is with the department of dermatology at the University of Minnesota there.

Light microscopy does not show very much effect from the Thermage technology, said Dr. Zelickson, who is a microscopist expert. An electron-microscope view of treated skin, however, shows what he called "islands of changes" in the collagen fibers.

Dr. Zelickson has also reported that some can see additive effects of each pass of the Thermage device, with up to five passes.

"In our patients, we only see some tightening," Dr. Zelickson said. "We can certainly see some tightening of the skin when you look at the before and after picture."

What is the most convincing evidence that Thermage works, however, is that patients have the impression that the treatment improves their looks, said Dr. Geronemus.

"Most of the patients I have seen over the last 2 months are people who are coming in for second treatments because of the success that they have achieved with their first treatment with Thermage," he said.

Still, even these two experts expressed some reservations about what can actually be accomplished with Thermage's ThermoCool system.

The procedure does not appear to apply for all of his patients, said Dr. Zelickson.

In his experience, selecting the proper patient is crucial to obtaining good results, but he did not elaborate on his criteria any further except to say that the right patient is one with obvious skin laxity.

Dr. Geronemus noted that in his research there was some evidence that the benefits of Thermage treatment appeared to be wearing off after a period of about 6 months.

Dr. Zelickson has received research grants from Thermage Inc., and Dr. Geronemus is a company shareholder.