Skin-Tightening Device Evidence Is Rather Loose

BY DAMIAN McNAMARA

PHOENIX — Some devices commonly touted for skin tightening are supported by evidence-based medicine, although few have data at the randomized, controlled-trial level, according to Dr. E. Victor Ross.

"'We have a lot of skin-tightening devices … and I applaud those companies who have spent money trying to do good, controlled studies," Dr. Ross said at the joint annual meeting of the American Society for Dermatologic Surgery and the American Society of Cosmetic Dermatology and Aesthetic Surgery.

Thermage (Solta Medical Inc., Hayward, Calif.) leads in the literature in terms of strong evidence to support its use for skin tightening, Dr. Ross said. For example, 8 of 60 published studies are "good randomized, controlled trials," meaning they provide level 1 evidence of clinical benefit. Level 2 evidence is a nonrandomized study, whereas level 3 evidence is anecdotal or case reports showing benefit of a device.

Thermage is included in the greatest number of published studies because it has been marketed the longest, said Dr. Ross, director of the Scripps Clinic Laser and Cosmetic Dermatology Center in Carmel Valley, Calif.

Other skin-tightening devices are supported by less evidence. For example, there are no published, peer-reviewed studies about the ultrasound-focusing Ulthera system (Ulthera, Mesa, Ariz.). "But at least … you can see changes on routine histology," he said. The Food and Drug Administration cleared marketing of the Ulthera system in September for noninvasive eyebrow lifts.

Although many manufacturers promote the "real-time temperature rise" of their devices, this may not be a fair basis for comparison because different devices heat to different levels of the skin, he said.

Another option in the skin-tightening market is the UltraShape device (UltraShape, San Ramon, Calif.). "UltraShape

'I applaud those companies who have spent money trying to do good, controlled studies.'

DR. ROSS

does have some good papers—at least two of nine are level 1, prospective randomized studies," Dr. Ross said.

In contrast, none of the six published studies on the Accent laser system (Alma Lasers, Buffalo Grove, Ill.) are designed to provide level 1 evidence. "My interpretation of the six studies so far … is they are level 2 or 3. Also, clinical photos were not blinded as to which ones were 'before' and 'after,' " Dr. Ross said.

A promising device not yet available in the United States is the high-intensity, focused, ultrasound LipoSonix system (Medicis Technologies, Bothell, Wash.), he said. It is approved for use in Europe and Canada. Foamy macrophages—suggesting lipid uptake—are seen on histology after use of the LipoSonix device, suggesting a true clinical effect. ■

Disclosures: *Dr. Ross is a researcher and/or consultant for Palomar Medical Technologies Inc., Lumenis Ltd., Cutera Inc., Candela Corp., Alma Lasers Ltd., Iridex Corp., Laserscope, Ulthera Inc., and Sciton Inc.*

Alopecia Grant Is Awarded by NIH

The National Institutes of Health has awarded a $1.77 million grant to Pratima Karnik, Ph.D. (Case Western Reserve University, Cleveland) for a 5-year study of cicatricial alopecia. The study, "PPAR-gamma Signaling in Normal Pilosebaceous Units and in Scarring Alopecia," is a continuation of collaborative scientific research linking a defect in lipid processing and peroxisome biogenesis to rare and painful hair loss disorders. The preliminary studies provided insight into highly complex interaction between hair follicle cells and environmental factors that may cause cicatricial alopecia. ■