"One of the best ways to address photodamage and fine-to-deep wrinkles around the eyes with the DermaSculpt is to use the Sculpturization (fractionated ablation) function."

By Bob Kronemyer, Associate Editor

With three different modalities including fractionated ablation, light-to-deep ablation and fine tune, photodamage on the thin skin around the eyes can now be effectively treated with the DermaSculpt Er:YAG laser from HOYA ConBio (Fremont, Calif.).

"One of the best ways to address photodamage and fine-to-deep wrinkles around the eyes with the DermaSculpt is to use the Sculpturization (fractionated ablation) function," advised Rebecca Small, M.D., director of medical aesthetic training at Natividad Medical Center, an affiliate of the University of California, San Francisco in Salinas, Calif. "I frequently pre-treat the area with botulinum toxin, so there is no dynamic wrinkling during the healing phase."

Dr. Small recently treated a woman in her late 40s who is Fitzpatrick skin type II with freckles, accumulative photodamage and moderate periocular wrinkling. After one session of Polish Peel (light-to-deep ablation), "she had significant reduction in her dyschromia, pigmentation and fine-to-moderate wrinkling," Dr. Small observed. "The reason I chose Polish Peel over Sculpturization in this particular case was because of the pigmentation. I found that Polish Peel reduces dyschromia."

Dr. Small is also impressed by the ability of Chisel Touch (fine tune) "to precisely deliver ablative laser energy to small, benign lesions on the skin. It is particularly helpful for sessile lesions such as sebaceous hyperplasia and seborrheic keratoses," she said.

With Sculpturization, the acute wound phase lasts four to six days, according to Dr. Small, while for a light Polish Peel, the downtime ranges from three to five days. Furthermore, "there is negligible downtime with Chisel Touch," she noted.

Compared to other ablative wavelengths like CO2, the 2940 erbium wavelength "has a greater absorption by water; therefore, lower energies are required to ablate the tissue," Dr. Small said. "The ablative threshold for erbium is 1 J/cm² vs. 5 J/cm² for CO2. With erbium, there is more superficial, precise ablation with less thermal damage to the tissue."

Ideal candidates for treatment range from those in their early 30s who are just beginning to show signs of wrinkling, up to patients in their 60s. "It has a very broad application because the aggressiveness of the treatment is modifiable," Dr. Small explained. A treatment session lasts 20 minutes. "Patients with moderate-to-severe wrinkling often require a second session, but rarely a third. I usually wait several months between treatments."

Khalil Khatri, M.D., a dermatologist with a private practice in Nashua, N.H., uses Sculpturization around the eyes. "Depending on how deep the wrinkles and the degree of sun damage, we do one or more passes." With a single treatment lasting 15 to 45 minutes, "results are good to excellent, depending on the number of passes."

Dr. Khatri also treats the upper eyelid by pulling the eyelid up and pointing the laser toward the bone as opposed to the eye. "Depending on the amount of loose skin, I do as few as two passes with Sculpturization and as many as eight," he said.

A woman in her 70s with very deep periocular wrinkles was treated with Sculpturization. At one month, "she looked excellent," Dr. Khatri conveyed. "There was an 80% to 90% reduction in wrinkles."

Dr. Khatri conducted the first split-face study of a CO2 and erbium laser. "We found that you can achieve the same results with both lasers, but the recovery period is quicker with erbium. Side effects were also less with the erbium laser," Dr. Khatri said.