Conservatism Aids CO2 Laser Success in Dark Skin

By Sharon Worcester
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Rhodes, Greece — CO2 lasers can be an effective and versatile tool in patients with darker skin types, Dr. Mukta Sachdev said at the 15th Congress of the European Academy of Dermatology and Venereology.

"A lot of the fears about treating darker skin are unfounded," she said, describing the favorable results she has achieved for numerous indications in her patients in southern India, who have predominantly Fitzpatrick skin types IV-V.

The key to good outcomes is careful patient selection and good pre- and post-treatment care, said Dr. Sachdev of Manipal Hospital, Bangalore, India.

She has achieved success with CO2 lasers for a number of indications, including verrucas, freckles, skin tags, epidermal nevi, traumatic tattoos, granuloma pyogenicum, rhinophyma, xanthelasmas, seborrheic keratoses, acne scars, and deep cystic acne, she said, noting that because of the photoprotection associated with her patients’ darker pigmentation, their use for laser resurfacing is minimal.

Selection of an appropriate and conservative parameter for the indication is important, as are test pulses and test sites to assess tissue response. Use adequate cooling, do not overtreat, and cover your risks for ulcerations, infection, pigmentation, and scarring, she advised.

Postoperative care should include the use of hydrocolloid dressings for at least a month, regular and frequent use of a mild nonoxynol soap, and sunscreen if pigmentation occurs. Hydroquinone and kojic acid can be used, and the problem should resolve in 6-8 weeks.

Many dermatologists use hydroquinone and hydroxyacid prophylactically for at least 3 months to minimize the risk, she noted. For some conditions, such as xanthelasmas and lentigines, results are not permanent, lasting only about 12-18 months.

And for others—such as acne scarring, which is particularly challenging in darker skin types—the results are less impressive. With acne there is typically about a 60% improvement, but patients, if advised of these limitations in advance, are generally happy with the results.

Advantages of the CO2 laser include its omnipotence, and relatively noninvasive nature. Downsides include the need for multiple passes, the risk of bleeding if treatment is too deep, and the potential for complications. Many complications can be prevented by avoiding overlap of laser spots or scars and by adhering to strict postoperative recovery regimens; when complications such as infection and pigmentary alterations do occur, most are treatable with a variety of topical and/or oral treatment, she said, stressing that proper training is a must. "Take time to master the art of resurfacing," she advised.

And take time when it comes to obtaining informed consent, she added, noting that "conversation is the heart and soul of obtaining informed consent."