CO₂ Laser: An Effective Option for Actinic Cheilitis

By Sharon Worcester
Southeast Bureau

Orlando — Ablation with a CO₂ laser caused no side effects, scarring, or recurrence in a small study in patients with actinic cheilitis, according to Dr. Keyvan Nouri.

In the study, 23 patients with this precancerous condition were treated at the University of Miami with Lumenis Ltd.’s UltraPulse CO₂ laser, said Dr. Nouri at the annual meeting of the Flori
da Society of Dermatologic Surgeons.

Study subjects were initially treated conservatively, at the device’s proprietary density setting of 6, but Dr. Nouri now uses a density of 7 because it allows him to achieve better ablation and a similar side effect profile.

After the first pass was made on the suspicious and surrounding areas, the treated area was wiped. A second pass was then made at 300 mJ over the suspicious area at a den

sity of 5. The area was then allowed to granulate, said Dr. Nouri, who is professor of dermatology at the University of Miami and director of the university’s laser center.

A variety of other actinic cheilitis treatments have been used, including surgical and nonsurgical approaches, but the CO₂ laser appears to be the best treatment option, said Dr. Nouri, who owns the UltraPulse laser that was used for the treat

ment but disclosed having no financial interest in the company that makes the device.

This laser is easier to use than many other oth
ertainment modalities, and may be safer as well, he said, noting that other treatments include topical agents (such as 5-fluorouracil, which can be very irritating), chemoe

xifoliation, systemic retinoids, interferon-α, cur
euttage, and electrosurgery.

Other advantages of the CO₂ laser, he noted, are a minimally risks of transferring precancers and a low risk of infection from the procedure itself. (Most patients are premedicated with antiviral agents and sometimes with antibiotics.)

“I’m not saying that this is a panacea, because even with the UltraPulse there can be a high recurrence rate, but it is a pretty good option,” he said.

Most cases of actinic cheilitis (about 97%) occur on the lower lip. Exposure to ultraviolet radiation is a risk factor for the condition, and thus it is particularly common in those with outdoor occupations and hobbies, said Dr. Nouri. Tobacco expo

sure has also been linked with this condition.

Men in the fifth and sixth decades of life are most often affected.

Actinic cheilitis presents as whittish or reddish lesions that are ulcerous, eroded unulcerated, or erosive ulcerated. Histologically, they present as mild epithelial dysplasia with thickening of the keratin and spinous layer.

Connective tissue and perivascular in

flammation can also be seen, but ba

sopholic changes within the connective tis

sue are a universal finding.

A patient with actinic cheilitis is shown before the laser ablation was performed.

Patients were initially treated at the device's proprietary density setting of 6, but a density of 7 provides better ablation and a similar side effect profile.