Light therapy has played a role in psoriasis management for many years, but only recently has it been harnessed in a laser device to treat psoriasis. The 308nm excimer laser (Xtrac, PhotoMedex) provided physicians and patients with an option to treat localized psoriasis with reliable efficacy and minimal, if any, adverse events. Recently, however, Photomedex has developed a more powerful 308nm excimer laser, Xtrac Velocity 700, which was studied in combination with clobetasol spray (Clobex, Galderma) and calcitriol ointment (Vectical, Galderma) for patients with generalized psoriasis.1

Ahead, study investigators John Y. M. Koo, MD, Professor and Vice Chairman in the Department of Dermatology at the University of California San Francisco Medical Center, and Tina Bhutani, MD, Clinical Research Fellow at the University of California San Francisco Medical Center, discuss the study and the role this combination approach may play in psoriasis therapy.

What advantages does the new excimer laser offer physicians and patients?
According to Dr. Koo and Dr. Bhutani, the Xtrac Velocity can treat generalized psoriasis in patients with up to 20 percent body surface area (BSA). “The Xtrac Velocity 700 is much more powerful than previous excimer lasers, which allows you to cover a much larger area of skin in less time,” notes Dr. Bhutani. Previous versions of the excimer laser could be used only in localized psoriasis, as it would take too long to treat larger areas, according to Dr. Koo. While it gave physicians a safe, effective option for these cases, its use was limited. “In delivering significantly more energy, the Xtract Velocity enables physicians to treat a broader range of patients with more extensive psoriasis,” observes Dr. Koo.

Can you discuss your findings so far?
A pilot trial was needed to test the safety and efficacy of the new excimer laser, and Dr. Bhutani notes that a combination approach would help to ensure good safety results. “The rationale for combining excimer laser therapy with topical agents is to reduce the potential for burning, which tends to be more likely with greater amounts of energy,” says Dr. Bhutani. Since clobetasol spray is an effective anti-inflammatory agent known for its efficacy, researchers opted for a combination approach.

While 30 patients were enrolled in the pilot trial, data currently are only available for 11 patients, seven of whom completed six weeks and four of whom completed the full 12 weeks of treatment. Dr. Koo and Dr. Bhutani note that patient response so far to these treatments has been significant, with six of the seven patients in the six-week group achieving PASI 75 and all four of the patients who completed 12 weeks of treatment achieving PASI 75.

Full results from this study and likely larger trials will be needed to confirm these initial promising results, but Dr. Koo believes that these preliminary findings are encouraging for the potential application of excimer laser therapy for generalized psoriasis patients.
What role do you see for this or other combination approaches incorporating the excimer laser in psoriasis therapy?

The benefit of this particular combination is primarily that it offers little potential for adverse events and can cover a broader range of patients than standard excimer therapy, such as those with 10 to 20 percent BSA, according to Dr. Koo. He further observes that safety is a very important factor when considering this treatment in the larger scope of psoriasis therapies. “While systemic and biologic agents carry risk of adverse events due to their mechanisms of action, with the excimer laser we are only exposing the plaques and thus the adverse event profile is much more favorable,” observes Dr. Koo.

While this pharmacologic/device combination approach to therapy presents many advantages, its reach has limits. “This therapy is not for patients with greater than 20 percent BSA, or for patients who may be sensitive to light,” he notes. In addition, patients weighing more than 250 pounds are not ideal candidates for this approach.

Also, Dr. Bhutani notes the more practical limitation of availability that may affect a patient’s ability to undergo this treatment. “Patients will likely need two treatments per week of about 15 minutes,” she notes. While the treatment duration is not long, multiple visits in a week may not be feasible for some patients.

However, Dr. Koo and Dr. Bhutani both are encouraged by the early results of their study and suggest that combination approaches with the new excimer laser may open up a variety of options for patients with generalized psoriasis. “While we don’t yet know where the threshold lies in terms of the achieving maximum efficacy with minimal burning, future studies will likely confirm the efficacy of this combination and determine more specific parameters for treatment,” says Dr. Koo.