

New Actinic Keratoses Therapy Casts a Wide Net

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LAS VEGAS — New data based on the use of confocal microscopy confirm that treating actinic keratoses with imiquimod stimulates immune activation, Dr. Roger I. Ceilley said at the Fall Clinical Dermatology Conference.

Dr. Ceilley said that in an ongoing unpublished double-blind, vehicle-controlled, randomized study being conducted by Dr. Abel Torres of Loma Linda (Calif.) University, and his associates, the investigators used reverse transcriptase/polymerase chain reaction and gene array analysis to determine imiquimod's effect on gene expression on actinic keratosis (AK) lesions. Confocal microscopy was performed on the study area as an adjunctive diagnostic procedure.

Imiquimod treatment of AK lesions resulted in the differential gene expression indicative of the recruitment and activation of macrophages, dendritic cells, cytotoxic T cells, and natural killer cells to the site of AK lesions, said Dr. Ceilley, clinical professor of dermatology at the University of Iowa, West Des Moines. The investigators also observed increases in the expression of cytolytic and cytotoxic genes with known antitumor activity as well as proapoptotic genes.

"The proliferation of activity decreased while the genes that were associated with tumor suppression were increased," he said at the conference, sponsored by the Center for Bio-Medical Communication Inc. "The gene changes were consistent with what they saw on confocal microscopy."

The findings lend further support to the idea that the decrease of AK lesion burden may also decrease the likelihood of squamous cell carcinoma (SCC) development. "There is a clear progression from photo damage to squamous cell carcinoma," Dr. Ceilley said. "In fact, we should view this as a syndrome rather than individual conditions because when you get squamous cell and basal cell carcinomas you almost always have photodamage and actinic keratoses along with them."

This association is important given a recent population-based study (JAMA 2005; 294:681-90) that noted a significant increase in the prevalence of squamous and basal cell carcinomas among men and women younger than age 40 years who

lived in Olmstead County, Minn., between 1976 and 2003.

"Because we're talking about a syndrome, [spotting an AK] needs to be a wake-up call," he remarked at the meeting. "If a patient gets an AK, they deserve a full skin examination. I typically will cryo the hypertrophic lesions and then use topical treatment along with it. You also need to use sunscreens for photoprotection. I typically have the patient on a retinoid as well, and there is some evidence that top-

ical systemic antioxidants may be useful."

He said that while there "isn't much difference" between imiquimod, diclofenac, and 5-fluorouracil for treating AKs, "I think what we need now are studies to help us determine which is the best, which is going to give permanent remission, and which is going to prevent SCC. The rationale for cancer field therapy is that patients have numerous AKs, and they are going to have the whole area treated, and the goal is to get rid of as many AKs as you

can, not only the clinically apparent lesions but the subclinical ones."

Dr. Ceilley added that imiquimod "seems to be the most effective as far as cancer field treatment and has the best data, but certainly the other topical treatments can be used as well."

In his practice of using imiquimod for AKs, his initial treatment involves three applications per week for 4-8 weeks. "Most of the time it's in the 4-week range," he said. ■



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Treating AK lesions (as shown here) could head off SCC development.

COURTESY DR. ROGER I. CEILLEY

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