Skin Cancer in the 21st Century:
Prevention is Part of Treatment

Patients who present with AKs or skin cancers are at risk for developing new lesions.
An expert discusses how this reality impacts care.

A Q&A WITH NEAL BHATIA, MD

As skin cancer rates continue to climb in the US and patients present with actinic keratosis (AK) and skin cancer at earlier ages, a cure-all remains elusive. But, according to Neal Bhatia, MD, of Therapeutics Clinical Research in San Diego, CA and Chief Medical Editor of Practical Dermatology® magazine, dermatologists can use tools currently available to better manage patients over the long-term. He talks about the latest in disease management, ahead.

What role does prevention play in skin cancer care today? What are the latest advancements?

“It really behooves the dermatologist to make prevention part of any treatment scheme,” Dr. Bhatia says. In addition to avoidance of UV exposure, use of sunscreen remains essential to prevention. “A lot of the efforts that have been coming forward are with new advances in sunscreen. For example, the advent of photolyase as an additive to sunscreens is showing a really good prevention strategy for the long-run in terms of DNA repair and photodamage. We’re seeing a lot of data for nicotinamide and Polypodium leucotomos, showing not only photoprotection merging with chemoprevention but also as long-term protection of the skin in general.” (See sidebar for more.)

Dr. Bhatia encourages dermatologists to have frank conversations with their skin cancer patients, lest they associate a relatively easy treatment with a non-serious disease. “Patients need to understand when they are diagnosed with a skin cancer, it is only the beginning of their treatment by a dermatologist,” Dr. Bhatia stresses. “They can’t take skin cancer lightly and think that, ‘Once you cut it out, my risk is done.’ This is all an investment of time and cumulative photodamage and UV exposure.

“Also, once you see one skin cancer, you have to remind the patient that probably a few more are on the way—not just in the field where that one was, but maybe somewhere else on the body or in an area that was not even too exposed to the sun, based on family history or any sort of predisposition,” he adds. That’s an important consideration for treatment, too, as discussed ahead.

“Looking at the big picture, we’re helping the patient understand that just like high cholesterol and high blood pressure...
pressure, we need to make regular skin cancer screening part of regular health care,” Dr. Bhatia maintains.

**Looking specifically at AKs, how is chemoprevention evolving as a treatment strategy?**

“The way I define it and the way a lot of people define it, is AK is a symptom of a bigger disease, and that’s photodamage,” Dr. Bhatia says. He notes that the “typical” AK patient no longer exists. Whereas AKs were once thought to be typical of patients in their 60s, Dr. Bhatia notes that now it is not uncommon to see AKs in individuals in their 30s.

Dr. Bhatia says dermatologists are, “Rethinking high risk. We shouldn’t just be treating what we see or treating that one spot. We should be treating the next 10 [spots].”

In addition to targeted treatment of specific lesions, the approach to management is focused on, “maintenance of the gains,” Dr. Bhatia explains. “If you use liquid nitrogen or PDT, then what do you do afterward? What’s the long-term gain... Are they on something that’s going to maintain them?”

Dermatologists are becoming adept at using topical therapies and oral agents in innovative ways for long-term patient management and prevention of new lesions. “As we are seeing with rotational therapies and the use of topical management in a sliding down rotation, rather than just cycles, we can optimize some of our utility of topical therapies. For example, using things like imiquimod, 5-fluorouracil in a rotating fashion, maybe once a month,” he says.

“Granted, these are off label, but these all have utility, given the mechanism of action. Of course, the use of photodynamic therapy has been proven to have very significant times away from skin cancer and clearance, while keeping high risk patients under some surveillance for the long-run,” Dr. Bhatia adds.

Yet again, an important duty of the dermatologist is to secure buy-in from the patient, who should return to the practice in six-month to yearly increments or more frequently, to check on the progress of treatment and assess for new lesions. In today’s era of high co-pays and deductibles, patients may be reluctant to return to the practice, as directed, Dr. Bhatia says.

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**Photoprotection Advancements At-a-Glance**

**Photolyase**. Relatively new to the US market but well-established in Europe, ISDIN’s Eryfotona Actinica contains encapsulated photolyase enzymes in liposomes (termed DNA reparsomes), that are intended to boost the skin’s natural recovery process. The SPF 50+ formulation contains zinc oxide and antioxidant vitamin E. In a recently-published study, use of sunscreen containing photolyase enzymes was associated with an absolute reduction of 76.6% in the number of AK lesions among subjects with cutaneous field carcinization. (*Dermatol Online J. 2017 Jan 15;23:1*)

**Nicotinamide**. Nicotinamide is thought to enhance DNA repair by preventing ATP depletion and glycolytic blockade induced by UV radiation. It is also thought to reduce immunosuppression induced by UV radiation. In two phase 2, double-blind, randomized, placebo-controlled trials, the number of actinic keratoses at four months was 29 percent lower among those who received nicotinamide 500mg administered orally once daily and 35 percent lower among those who received nicotinamide 500mg twice daily, compared to placebo. (*N Engl J Med 2015; 373:1618-1626*)

**Polypodium leucotomos**. A popular botanical treatment from South America, extract of the fern *Polypodium leucotomos* is formulated in Ferndale Healthcare’s Heliocare supplement. In a trial, subjects who received the extract showed greater likelihood of an increased minimal erythema dose and greater likelihood of decreased UV-induced erythema intensity at four weeks, compared to controls. (*J Clin Aesthet Dermatol. 2015 Feb; 8(2): 19–23*)