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The Big Picture, Vitiligo Treatment Success

Phototherapy, topical combinations help improve vitiligo

By Nancy A. Melville
Staff Correspondent

Eagan, Minn. — Advances in phototherapy continue to give dermatologists powerful new options for the treatment of vitiligo, and while there still is no cure for the condition, phototherapy, along with creative new treatment combinations, is offering increasingly successful results.

Along with narrowband UVB, for example, there is the excimer laser, which has a wavelength of 308 nm, which is close to UVB's 311 nm to 313 nm.

"The excimer laser is exciting, because its wavelength is very close to narrowband UVB, and it offers some of the same potent anti-inflammatory results,"



Dr. Crutchfield

says vitiligo expert Charles Crutchfield, M.D., adjunct clinical associate professor of dermatology, University of Minnesota Medical School, Eagan, Minn.

The excimer laser allows for the targeting of specific areas, which can be beneficial in places such as the face, but it can be a disadvantage when there is extensive depigmentation. Also, the excimer can be very expensive, and insurance coverage is not yet common.

Gold standard

The current gold standard for treatment, narrowband UVB phototherapy, offers a potent anti-inflammatory effect, and, if used appropriately, doesn't pose the side effect risks of sunburn or nausea and the increased cancer risk later in life, which were a concern with the previous phototherapy treatment of choice, UVA phototherapy with psoralen (PUVA).

And with results that can appear within two to three months, UVB has the advantage

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of creating faster improvement than PUVA treatment, which can take a year or longer.

With both narrowband UVB and excimer laser treatments, Dr. Crutchfield says that he starts very lightly, with a low dose, and gradually increases exposure for the best results.

"I treat patients of all skin tones as if they are Caucasian, and start them out at about 100 mJ/cm² and gradually increase the exposure in increments of only about 10 to 15 joules," Dr. Crutchfield says.

"The same with excimer — I start with a low exposure and then work my way up," he says.

Repigmentation

Repigmentation with phototherapy can progress faster in some areas of the body than others.

"It's been my experience that the first repigmentation will show up on the face, followed by the neck, arms and trunk," Dr. Crutchfield says.

"The last, most difficult area to repigment is often the back of the hands and the top of the feet. For some reason, those areas are ultra-stubborn.

"Still, repigmentation on the face can show up in one to three months, and patients are usually thrilled about that," he says.

SPECIAL REPORT



Topical treatments

Topical treatments, including topical steroids and nonsteroidal topical immunomodulators, still play a big role in vitiligo treatment, and Dr. Crutchfield says he sees the best results when they are combined with phototherapy.

"The standard treatment I use when I have a patient with vitiligo over the age of 6 is I'll put them on narrowband phototherapy, and I use three topicals — a topical steroid that is a Class IV, like Westcort (hydrocortisone valerate 0.2 percent, Westwood-Squibb), combined with 2 percent salicylic acid; and a topical nonsteroidal anti-inflammatory, such as Protopic (tacrolimus, Astellas) or Elidel (pimecrolimus, Novartis), because it's steroid-sparing," he says.

"In some younger patients, I'll use Protopic just three times a day, with or without phototherapy," Dr. Crutchfield says.

The salicylic acid helps give a boost to the steroid, he adds.

"It's a little-known, older pearl, but what salicylic acid does is it drives the steroid down deeper in the skin to provide a better effect," Dr. Crutchfield says.

The third topical Dr. Crutchfield uses is a topical vitamin D containing ointment or cream such as Dovonex (calcipotriene, Westwood-Squibb) or Vectical (calcitriol, Galderma).

Dr. Crutchfield says he has seen impres-

quick read

Topical and phototherapy treatment options for vitiligo are increasing, and one expert says he combines modalities.



A male patient with vitiligo is shown before (left) and after treatment with narrowband UVB (34 sessions; two to three times weekly) and three topicals (each once daily, for 12 weeks): Dovonex (calcipotriene, Westwood-Squibb) ointment; Dermatotop (prednicarbate, Dermik) cream with 2 percent salicylic acid; and Protopic (tacrolimus, Fujisawa) 0.3 percent ointment. (Photos: Charles Crutchfield, M.D.)

sive results with topical vitamin D. He will sometimes incorporate products including Dovonex, a synthetic vitamin D3, in his treatment regimen.

Frequency

With any combination, Dr. Crutchfield begins with a regular, frequent treatment regimen that gets patients on track to see results.

"I get patients to come in three times a week for the first six to eight weeks, because it really offers the best repigmentation, and it gives them the incentive and inspiration to keep going," he says.

"I think a lot of physicians assume nothing can be done."

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Antioxidants

One theory on the causes of vitiligo suggests that free radicals cause damage to melanocytes; therefore, antioxidants are gaining focus as topical or even systemic potential treatments for the condition.

"There is some intriguing new thinking that melanocytes can produce free radicals that wind up hurting themselves, and the jury is still out, but we're looking at systemic antioxidants in the prevention of the free radical destruction of melanocytes in the skin," Dr. Crutchfield says.

"In my practice, I would say I see a positive response about 70 percent of the time."

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Clinical study

An Italian study found that oral supplementation of an antioxidant pool of alpha-lipoic acid, vitamins C and E, and polyunsaturated fatty acids in fact improved results with narrowband UVB phototherapy for vitiligo.

In the study of 28 patients, those receiving the supplements for two months before and six months during the UVB treatments showed greater improvement, with 47 percent of the antioxidant group showing greater than 75 percent repigmentation, versus only 18 percent in the placebo group (*Clin Exp Dermatol.* 2007 Nov;32(6):631-636).

Rare treatment

Another vitiligo treatment that takes a markedly different approach than any of the others is monobenzyl ether of hydroquinone, which depigments the few remaining areas of pigmentation in extreme cases to at least bring evenness to the skin, rather than working to repigment the skin.

The treatment can currently only be obtained in the United States through compounding pharmacies, but Dr. Crutchfield

says he has had cases in which the treatment offered substantial benefit.

"I had a 13-year-old African-American patient with severe vitiligo, and I told her the treatment would give her white skin all over, and she says, 'I don't care what color I am. I just want to be one color.'

"These cases are very rare, and it's an extreme treatment, but it is not a bad treatment when you have someone who is heavily depigmented," he says.

Prognosis

Whether treatment is with topicals or phototherapy, the success in treating vitiligo can still be hit-and-miss, but Dr. Crutchfield urged physicians not to make the mistake of giving up or not trying.

"I think a lot of physicians assume nothing can be done," he says.

"I've seen patient after patient come in and say they've been to many doctors who say there was nothing that could be done — and before the development of laser therapy and phototherapy, that may have been true, but we now really can offer some improvement," Dr. Crutchfield says.

"We don't have total success, but in my practice, I would say I see a positive response about 70 percent of the time," he says.

"In some, there still may not be any response at all, but in those 70 percent of cases, there is either a total or significant response, and the patients are really happy," Dr. Crutchfield says. **DT**

Disclosures: Dr. Crutchfield reports no relevant financial interests.