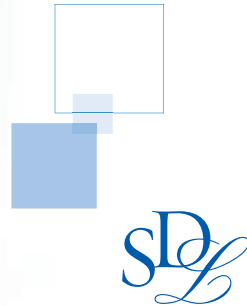


TREATING PIGMENTATION

BY JENNIFER BARNES



Hyperpigmentation is when dark pigment on the skin occurs. Treatment using a number of pharmacological agents is achieving excellent results.

MELANIN gives the skin its pigment and is produced by a type of skin cell called a melanocyte. If you have overactive melanocytes they will produce darker pigmented areas called hyperpigmentation. There are several types of hyperpigmentation that can occur, the common causes being: sun-related (such as freckles), pregnancy-related (hormones stimulate melanin production), and disease-related (such as hyperpituitarism and Addison's disease).

Director of research and development at Young Pharmaceuticals, Inc., Mr. John Kulesza develops treatments to combat hyperpigmentation. He explains the process: "The primary reason for hyperpigmentation is because the melanocyte is over producing; but it can be arrested or inhibited in different ways, including pharmacologically. The best known agent that does this is Hydroquinone which basically inhibits enzymes that the cells use to produce melanin."

While Hydroquinone is the most common treating agent, Kojic acid is a close second and several others are used successfully in combination. Here we explore the options.

The way Hydroquinone works is not completely understood. It may have two mechanisms of action. It may inhibit the formation of melanosomes (bundles of pigmentation) and it may also cause the melanosomes to degrade.

Hydroquinone is popularly used alone (usually at 4% strength) but it is also being successfully combined with other agents such as Retin A and topical corticosteroids. Clinical professor of dermatology at Yale University Israel Dvoretzky, MD, explains why a combination product is beneficial: "Retin A is effective to regulate the epidermis because, in general, pigmented skin is also sun-damaged skin and it helps the Hydroquinone to penetrate easier. The steroid is an anti-inflammatory; sometimes if you have inflammation you also have hyperpigmentation. So with a combination you can achieve regulation of the skin, lessen inflammation and use the Hydroquinone as the bleaching agent."

A newer agent gaining popularity is Kojic acid. This is especially beneficial for people who may develop an irritation to Hydroquinone. "Kojic acid seems to affect hyperpigmentation along a different chemical pathway than Hydroquinone," says Mr. Kulesza. "With KojiLac-

C (a product containing Kojic Acid, Lactic Acid and Vitamin C) there are no reports of irritation; it is a much gentler product.”

So with no reports of side effects, why not just use this product all the time? Mr. Kulesza explains it’s not medically optimal to choose just one product over another: “Melanin production is a very complex set of chemical events within the skin, so you are probably better off attacking that process along as many chemical pathways as you can in order to achieve the best results. For example, we can use Hydroquinone to inhibit the enzymes and use Kojic acid at the same time to act on the copper ion which is involved and then lactic acid to remove the pigmented cells – this way we have a synergistic effect.”

Assistant clinical professor of dermatology at UCLA, Bernard Raskin, MD, agrees: “We often recommend patients use one product in the morning and a different one at night, and then in a couple of months switch the treatments around. We just don’t know what each individual will respond to.”

There are a number of other modalities that are effective at reducing hyperpigmentation and working out the best regime for each individual patient comes with experience. For instance, lactic acid may help by increasing the exfoliation of the pigmented cells. And there are others as Dr. Raskin suggests: “We’ll often add modalities such as mild acid peels, glycolic acid peels, and TCH peels. Liver spots or sun spots (which are localized oval shaped brown spots) respond well to laser. We usually treat the patient for a couple of months and then reevaluate.”

It’s important to note that whatever your skin type and cause of pigmentation, it is highly likely there is a topical product right for you. As a general rule, whichever treatment options the doctor chooses the agents should only be applied to the areas of hyperpigmentation and patience may be needed. “You have to give it three to four months before you give up on the medication,” says Dr. Dvoretzky. “Once you see an improvement you can continue until you are satisfied.”

But beware of self-treatment. There are many brands of Hydroquinone and some manufacturers of these products are recommending they be used as beauty products applied daily all over the face. “In my profes-

sional opinion, I think this is a controversial medical concept,” says Mr. Kulesza. “Hydroquinone is a drug and was never intended to be used everyday for the rest of your life as an anti-aging or beauty product. These are wonderful medicines but should be used for their medical purpose; this is to lighten the skin. They are not anti-aging medicines.”

Usually over the counter products contain other anti-aging agents such as antioxidants, AHAs and retinoic acids. “The idea is aging skin usually has pigmentation and it is recommended using these all year long,” says Dr. Dvoretzky. “There is controversy about this and only time will tell.”

But all doctors and scientists unequivocally agree that if the patient wants to get good results with any of these agents, using a good sunscreen is mandatory. “If the patient is not going to use a broad-spectrum sunscreen religiously I say don’t bother using these agents,” says Mr. Kulesza.

Dr. Raskin agrees: “The main problem with face creams whether prescription or over the counter is that they work as long as you are avoiding sunlight. You can use these creams for six to eight weeks and get a wonderful result, but then after fifteen minutes of sunlight and you are back to where you started.”

So before jumping in, consult your doctor and have patience. Very good results can be obtained by using a tailored combination of topical creams and most importantly avoiding the sun as much as possible.



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