Pigmentation Concerns: Assessment and Treatment

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Under eye circles, melasma, postinflammatory hyperpigmentation from acne, mottled hypopigmentation from photodamage, and lentigines from sun exposure are all typical concerns from patients in dermatology offices. Patients want the magic of creams and lasers to erase any sign of dyspigmentation with no wait time. Dermatologists want to perfect effectiveness of prescriptions, find lasers that work for all forms of dyschromia, and insist on patient compliance with sunscreen. Cosmetic companies also have tuned into the war on dark spots that consumers are waging, with a plethora of lightening products that promise an even skin tone. By the time most patients reach the dermatology office, they have tried many of the available over-the-counter remedies and are looking for extreme treatment modalities.

Few patients consider how the dermatologist must assess their dyschromia. Is the clinical examination enough? Is a colorimeter necessary? Will a biopsy be needed? What are exacerbating factors? Most patients are underwhelmed by conservative recommendations such as regular sunscreen use, hydroquinone cream 4%, and treatment of the underlying etiology of the pigmentation. Expectations often do not match the available treatment options, and at times, patients turn to unrealistic products and treatments. It is the role of the dermatologist to step in, set expectations, and help the patient sort through the many options for the best treatment of their particular form of dyschromia. The patient encounter becomes an exercise in helping him/her understand the biology of pigmentation, explaining the myths that may be culturally ingrained in his/her belief system, and preparing him/her for what could be an expensive out-of-pocket endeavor.

In the past, the gold standard for the treatment of hyperpigmentation had been hydroquinone. The introduction of a triple-combination cream containing hydroquinone, a corticosteroid, and a retinoid to our armamentarium revolutionized how we treated hyperpigmentation and quickly became a mainstay of treatment. The removal of this product from the market nearly 3 years ago due to production issues and increasing US Food and Drug Administration discussion of safety of hydroquinone[1] has led to increasing use of alternative products, including physician-formulated hydroquinones, kojic acid, glycolic acid, licorice derivatives, vitamin C, azelaic acid, and laser combinations. Still there is no medication or treatment in the winner's circle for dyschromia and patients are waiting for our basic scientists to unlock the chemical reactions to prevent melanosome development. Patients are waiting for selective photothermolysis that allows just the right amount of melanosome induction or destruction. The continued investigation of all of these issues is the only way to ensure answers to our quandaries.

In a recent publication, Davis et al[2] showed that dyschromia is the fifth most common dermatologic diagnosis in black patients by querying the National Ambulatory Medical Care Survey (NAMCS). The top 4 diagnoses in this same group included acne, unspecified dermatitis, seborrheic dermatitis, and atopic dermatitis, all potential etiologies of hyperpigmentation in skin of color. In Hispanic and Latino patients, dyschromia was the tenth most common skin diagnosis, while dyschromia did not make the top 10 diagnosis list in white patients who were evaluated in the study.[2] These data show what has been surmised by clinicians for many years. Although patients of all ethnicities are concerned with dyschromia, patients with skin of color are notably more affected by pigmentary concerns.

Further investigation must include how best to assess pigmentation concerns, when to initiate the discussion of pigment mechanics with patients, when to attempt to introduce new medications and modalities in the clinical setting, and how to consider quality-of-life concerns in affected patients.

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References

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2. Davis SA, Narahari S, Feldman SR, et al. Top dermatologic conditions in patients of color: an analysis of nationally representative data. *J Drugs Dermatol.* 2012;11:466-473.