

Dermatology researchers create new tool to measure hyperpigmentation

March 20 2024, by Gina DiGravio



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There are currently no globally accepted methods for analyzing hyperpigmentation, a condition in which patches of skin are darker than the surrounding skin on the body. While one popular scale exists, it is

specific to facial hyperpigmentation related to acne.

A new study from researchers at Boston University Chobanian & Avedisian School of Medicine has validated a novel scale for hyperpigmentation, the Post-inflammatory Dyspigmentation Area and Severity Index (PIDASI), in a diverse U.S. population of varying skin tones.

Additionally, these same researchers developed and validated a new, simpler scale for this condition they called the Post Inflammatory Hyperpigmentation Area and Severity Index (PIHASI) that allows for better and easier characterization of the condition.

"Our study demonstrates that both the PIDASI and PIHASI tools perform well in patients of a variety of skin types with post-inflammatory hyperpigmentation and are reliable and valid alternatives to the commonly used metric to measure the severity of [skin](#) changes from [inflammatory diseases](#)," explained corresponding author Neelam Vashi, MD, associate professor of dermatology at the school and director of the Boston University Cosmetic and Laser Center at Boston Medical Center.

Patients with hyperpigmentation were examined using colorimetry, an objective method of color characterization, and standardized photographs. Expert dermatologists and dermatology residents then graded the hyperpigmentation on three scales: the scale they created (PIHASI), the PIDASI, and the industry standard. They found that both PIDASI and PIHASI corresponded to objective measurements of disease severity.

According to the researchers, the PIHASI scale will allow providers to characterize a patient's hyperpigmentation better and will be vital in hyperpigmentation research to better quantify response to treatment. "As

the scale is simpler than the PIDASI, it can also be used in clinics during patient encounters to understand improvement in hyperpigmentation across time," said Vashi.

These findings [appear](#) in the *Journal of the American Academy of Dermatology*.

More information: Michelle Lazar et al, PIDASI and PIHASI: Scoring Tools for Assessment of Post-Inflammatory Hyperpigmentation, *Journal of the American Academy of Dermatology* (2024). [DOI: 10.1016/j.jaad.2024.03.011](#)

Provided by Boston University School of Medicine

Citation: Dermatology researchers create new tool to measure hyperpigmentation (2024, March 20) retrieved 27 April 2024 from <https://medicalxpress.com/news/2024-03-dermatology-tool-hyperpigmentation.html>

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