Dermoscopy Allows Better Management of Nail Pigmentation

THE CLINICAL CHALLENGE OF NAIL PIGMENTATION

A pigmented nail presents a diagnostic challenge for the clinician because its differential diagnoses include minor and life-threatening disorders. Normal nails are not pigmented because nail matrix melanocytes are quiescent and do not produce melanin. However, nail matrix melanocytes may be activated by a variety of different stimuli and start to produce melanin, which is incorporated into the nail plate and causes nail pigmentation. This is usually arranged in longitudinal streaks (longitudinal melanonychia), usually arising from the distal matrix; it is much more common in dark-skinned individuals than in whites. Common causes of longitudinal melanonychia due to melanocyte activation include inflammatory and traumatic nail disorders, drug reactions, and systemic diseases.

ROLE OF DERMOSCOPY IN THE EVALUATION OF NAIL PIGMENTATION

The value of dermoscopy is to disclose a new morphologic dimension of pigmented lesions. This noninvasive diagnostic technique permits the visualization of morphologic features that are not visible to the naked eye, thus forming a link between macroscopic clinical dermatology and microscopic dermatopathology. This submacroscopic observation technique for pigmented lesions enhances the available clinical diagnostic tools by providing new morphologic criteria for the differentiation of melanoma from other melanocytic and nonmelanocytic pigmented lesions.

It has been proven that dermoscopy allows increasing sensitivity and specificity for melanoma. Since 1989, when the first consensus meeting on dermoscopy was held in Hamburg, Germany, a growing number of articles have been published, reflecting the increasing interest of the dermatologic community in this new diagnostic technique.

In 2000, a new consensus meeting was held using the Internet to refine dermoscopic terminology and to test reproducibility and validity of classic diagnostic criteria as well as criteria developed in the last 10 years. In this Internet consensus meeting on dermoscopy, it was established that specific dermoscopic criteria may apply when pigmented lesions are located on specific body areas. Remarkably, these specific features are related to the different anatomic structures of such locations. To give an example, a pigmented network is the most common dermoscopic feature of melanocytic lesions of the trunk and extremities because of the hyperpigmentation of rete ridges, whereas a parallel-ridge pattern is the most important dermoscopic feature of lesions on specific body areas.

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Several studies have been performed to test the reliability of dermoscopy in the differentiation of melanoma from benign pigmented lesions. More recently, several research groups have reported specific criteria for diagnosing melanoma in the context of various anatomic locations such as the acral and facial areas. To name but a few examples, it was established that rhomboidal structures and a parallel-ridge pattern are the most important dermoscopic criteria for diagnosing lentigo maligna of the face and acral melanoma in situ, respectively. By keeping in mind these specific features, the dermatologist may diagnose melanoma these particular locations with increased confidence.

The article by Ronger et al in this issue of the ARCHIVES represents an excellent contribution, adding significant information for the clinical management of nail pigmentation. For the first time, the dermoscopic features of nail pigmen-
Early diagnosis of nail melanoma? Dermoscopy can give Distinguishing melanonychia due to melanocytic ac-

rithm (Step 1)

Nail Pigmentation

Dermoscopy

Nonmelanocytic

Malignant

Dermoscopy

(Step 2)

Activation

Proliferation

Biopsy

(Step 3)

Dermoscopy of Pigmented Skin Lesions: An Atlas Based on Pattern Analysis. Naples, Italy. Giuseppe Argenziano, MD

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