Original Investigation

Recurrent Melanocytic Nevi and Melanomas in Dermoscopy
Results of a Multicenter Study of the International Dermoscopy Society

Andreas Blum, MD; Rainer Hofmann-Wellenhof, MD; Ashfaq A. Marghoob, MD; Giuseppe Argenziano, MD; Horacio Cabo, MD; Cristina Carrera, MD; Bianca Costa Soares de Sá, MD; Eric Ehrsam, MD; Roger González, MD; Josep Malvehy, MD; Ausilia Maria Manganoni, MD; Susana Puig, MD; Olga Simionescu, MD; Masaru Tanaka, MD; Luc Thomas, MD; Isabelle Tromme, MD; Iris Zalaudek, MD; Harald Kittler, MD

IMPORTANCE Differentiating recurrent nevi from recurrent melanoma is challenging.

OBJECTIVE To determine dermoscopic features to differentiate recurrent nevi from melanomas.

DESIGN, SETTING, AND PARTICIPANTS Retrospective observational study of 15 pigmented lesion clinics from 12 countries; 98 recurrent nevi (61.3%) and 62 recurrent melanomas (38.8%) were collected from January to December 2011.

MAIN OUTCOMES AND MEASURES Scoring the dermoscopic features, patterns, and colors in correlation with the histopathologic findings.

RESULTS In univariate analysis, radial lines, symmetry, and centrifugal growth pattern were significantly more common dermoscopically in recurrent nevi; in contrast, circles, especially if on the head and neck area, eccentric hyperpigmentation at the periphery, a chaotic and noncontinuous growth pattern, and pigmentation beyond the scar's edge were significantly more common in recurrent melanomas. Patients with recurrent melanomas were significantly older than patients with recurrent nevi (mean [SD] age, 63.1 [17.5] years vs 30.2 [12.4] years) ($P < .001$), and there was a significantly longer time interval between the first procedure and the second treatment (median time interval, 25 vs 8 months) ($P < .001$). In a multivariate analysis, pigmentation beyond the scar's edge ($P = .002$), age ($P < .001$), and anatomic site ($P = .002$) were significantly and independently associated with the diagnosis of recurrent melanoma in dermoscopy.

CONCLUSIONS AND RELEVANCE Dermoscopically, pigmentation beyond the scar's edge is the strongest clue for melanoma. Dermoscopy is helpful in evaluating recurrent lesions, but final interpretation requires taking into account the patient age, anatomic site, time to recurrence, growth pattern, and, if available, the histopathologic findings of the first excision.

JAMA Dermatol. doi:10.1001/jamadermatol.2013.6908
Published online November 13, 2013.

Author Affiliations: Author affiliations are listed at the end of this article.

Corresponding Author: Andreas Blum, MD, Public, Private and Teaching Practice of Dermatology, Seestrasse 3a, 78464 Konstanz, Germany (a.blum@derma.de).