Dysplastic Nevi

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KEYWORDS

• Dysplastic • Nevus • Atypical cytology • Clark's nevus
• Melanoma in situ

INTRODUCTION

The term dysplastic nevus was introduced soon after the description of the B-K mole syndrome by Wallace Clark and colleagues in 1978 to describe a common but clinically and histopathologically distinct type of melanocytic nevus.[1] The precise definition has been the source of great controversy, many synonyms have been proposed[2–4] (atypical nevus, Clark's nevus, nevus with architectural disorder, and melanocytic atypia), and although a National Institutes of Health Consensus Conference[5] once recommended against its use, the term dysplastic nevus is now widely used.[6] In a large survey of dermatologists, the dysplastic nevus was acknowledged as a distinct entity by 98% of responders.[7]

Patients with multiple dysplastic nevi have an increased risk for malignant melanoma,[8] and dysplastic nevi themselves have at least some potential for malignant transformation[7] in a manner somewhat analogous to that of adenomas of the colon.

Development of malignant melanoma is uncommon within dysplastic nevi, however. Since this transformation occurs in other types of nevi (eg, congenital nevi), their role as a marker of increased risk for melanoma in the patients who bear them seems to be their greater significance.[9,10]

GROSS OR CLINICAL FEATURES OF DYSPLASTIC NEVI

Dysplastic nevi are generally encountered in two clinical settings. In the first, referred to as dysplastic nevus syndrome or familial atypical multiple mole melanoma syndrome,[11–14] patients have numerous dysplastic nevi and a personal or family history of melanoma. Within the United States, familial dysplastic nevus syndrome probably affects approximately 32,000 individuals.[15] Far more common is the second setting, in which patients have a variable number of dysplastic nevi, perhaps only a few, and no strong family history of melanoma.

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Key Features Dysplastic Nevi
Markers of increased risk for malignant melanoma, particularly in patients with multiple lesions
Occur sporadically and within a familial setting
Development of malignant melanoma within a dysplastic nevus is rare
Differential diagnosis includes superficial spreading melanoma and melanoma in situ
Histopathologic criteria for diagnosis and grading remain controversial and interobserver variability is significant

In a given individual, dysplastic nevi may be solitary or number in the hundreds. They are usually larger than other types of nevi, have irregular or ill-defined borders, and irregularly distributed pigment or pigment of multiple colors (**Figs. 1** and **2**).[1] They may be macules, papules, or plaques. The most common location is the trunk,[1] but they may occur at any anatomic site.

MICROSCOPIC FEATURES OF DYSPLASTIC NEVI

Dysplastic nevi exhibit a wide range of morphologic features and, despite numerous attempts at consensus, criteria that define dysplasia are not universally agreed upon, even among experts.[16] Generally accepted criteria, however, include (1) nevus cells arranged singly or in small nests along the tips and sides of rete ridges (**Fig. 3**); (2) fibroplasia of the papillary dermis (**Fig. 4**); (3) intraepidermal nevus cells extending horizontally more than 3 rete pegs beyond those in the dermis (shouldering) in lesions that are compound (**Fig. 5**); (4) a lymphohistiocytic inflammatory infiltrate; and (5) random cytologic atypia, including melanocytes with nuclear enlargement, prominent nucleoli, and expanded chromatin (**Fig. 6**).[7,16–18] Other types of nevi may also have a dysplastic component. For example, features of a dysplastic nevus are sometimes encountered within lesions that otherwise resemble a congenital-pattern nevus.[19]

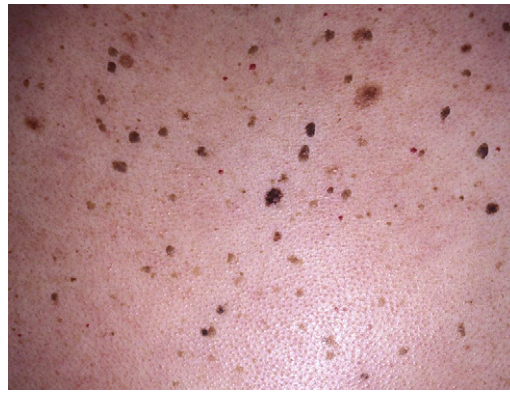

Fig. 1. Clinically, dysplastic nevi often exhibit irregular borders and irregularly distributed pigment. Many of the lesions are small. Some authors require that a nevus be greater than 5 mm in size to qualify as truly dysplastic. (*Courtesy of* Bryan Anderson, MD.)