DermPath Update

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Dysplastic Nevi

Melanocytic nevi may exhibit a wide variety of patterns of growth under the microscope. Over the years, these patterns have been subcategorized in order to predict biologic behavior and direct therapy. Pathologists have learned to recognize atypical but benign variations in pattern of growth and cell morphology in melanocytic nevi. These variations are commonly seen in spindle and epithelioid cell nevi (Spitz's nevi), combined nevi and genital nevi. These variations have no identified relationship to malignancy. In the late 70's, descriptions of nevi with histologic atypia in patients with familial melanoma introduced concepts of atypical moles or "dysplastic nevi". Studies since have suggested a biologic relationship of these lesions to melanoma.

The dysplastic nevus, as described by Clark,[1] Elder,[2] Greene[3] and coworkers, is recognized histologically by a constellation of changes including pattern of growth and the appearance of the melanocytes (Table 1). It should be emphasized that the presence of one or a few of these changes may be commonly seen in melanocytic lesions and these isolated variances may not signify a dysplastic nevus as originally conceptualized. But when many or all of these changes are present together, the lesion may be called a dysplastic nevus as originally described by Clark and others.

Controversy has surrounded the dysplastic nevus like a halo. Diagnostic criteria, reproducibility, terminology and clinical significance have been argued. Histologic criteria are published and are reproducible.[4,5,6] Pathologic terminology remains diverse with the NIH[7] recommending "nevus with architectural disorder and cytological atypia" and other authorities, including members of the WHO, continuing to use the term dysplastic nevus (Table 2). Presently the most important and unresolved issue is the clinical significance of dysplastic nevi. Recent prospective studies, however, strongly suggest that dysplastic nevi are important signs of patients with a definite risk for developing melanoma.[8,9,10]

We use the term dysplastic nevus only in lesions with the histologic changes described by Clark, Greene and Elder. Since many types of moles may have architectural and cytological atypia, we do not use the

NIH terminology. We do not believe that dysplastic nevi are obligate precursors of melanoma. Melanomas may arise in normal skin, in benign nevi, congenital nevi or in dysplastic nevi. Dysplastic nevi should be removed and examined histologically when there is clinical suspicion of malignancy. If a pigmented lesion remains or recurs at the site of a biopsy, the lesion should be reexcised. Dysplastic nevi with severe atypia should be removed with a margin of uninvolved skin. The clinical management of patients with dysplastic nevi has been recently reviewed.[11]

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Table 1

HISTOLOGIC FEATURES OF DYSPLASTIC NEVUS	
1	Basilar proliferation of melanocytes, often with nesting, usually extending beyond a dermal nevic component, if present
2	Melanocytic atypia
3	Inflammatory infiltrate
4	Increased vascularity
5	Papillary dermal fibrosis, eosinophilic and or lamellar fibroplasia
6	Bridging of rete by nests of atypical melanocytes

Table 2

DYSPLASTIC NEVUS, DIAGNOSTIC TERMINOLOGY, HISTOPATHOLOGIC	
UTMCK Dermpath/Googe & Fitzgibbon (after Clark et al, WHO)	**N.I.H. Consensus Statement**
nevus with features of a dysplastic nevus	nevus with architectural disorder
dysplastic nevus with mild atypia	nevus with architectural disorder and mild melanocytic atypia
dysplastic nevus with moderate atypia	nevus with architectural disorder and moderate melanocytic atypia
dysplastic nevus with severe atypia	nevus with architectural disorder and severe melanocytic atypia

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