

The “Dysplastic” Nevus
Dermatopathology then and now –
Have we travelled?

USCAP Companion Meeting: Dermatopathology

March 2, 2014

SAMs Questions

Mark A. Hurt, MD

Cutaneous Pathology

Saint Louis, MO, USA

Question 1:

In the long-term follow-up of patients with many clinical moles (putative nevi), which is true?

- A. All of the moles should be removed to prevent melanoma from occurring.
- B. If excised incompletely, the nevi are likely to develop into melanomas.
- C. Melanomas will arise almost invariably in conjunction with nevi.
- D. The morphological pattern of the nevi will determine if the patient has many moles.
- E. They have an increased risk for developing melanoma.

Answer: E

Mole patients, patients with a history of melanoma, and patients with a family history of melanoma are at increased risk for developing melanoma. Melanocytic nevi of any pattern have a very low risk of developing melanoma within their substance, especially given the fact that millions of them occur in nature and only a small number are biopsied. Most melanomas arise *de novo*, unassociated with a melanocytic nevus. One cannot determine, from the pattern of a melanocytic nevus alone, whether a patient is moley or will develop melanoma.

References

Pozo L, Naase M, Cerio R, Blanes A, Diaz-Cano SJ. Critical analysis of histologic criteria for grading atypical (dysplastic) melanocytic nevi. *Am J Clin Pathol*. 2001 Feb;115(2):194-204. PubMed PMID: 11211607.

Duffy K, Grossman D. The dysplastic nevus: from historical perspective to management in the modern era: part I. Historical, histologic, and clinical aspects. *J Am Acad Dermatol*. 2012 Jul;67(1):1.e1-16; quiz 17-8. Doi: 10.1016/j.jaad.2012.02.047. PubMed PMID: 22703915; PubMed Central PMCID: PMC3625372.

Duffy K, Grossman D. The dysplastic nevus: from historical perspective to management in the modern era: part II. Molecular aspects and clinical management. *J Am Acad Dermatol.* 2012 Jul;67(1):19.e1-12; quiz 31-2. Doi: 10.1016/j.jaad.2012.03.013. PubMed PMID: 22703916; PubMed Central PMCID: PMC3621132.

Question 2:

What is the critical point of disagreement between those who advocate in favor of the “dysplastic” melanocytic nevus and those who oppose it?

- A. Different patterns of nevi can have zones of fibroplasia (lamellar and concentric).
- B. “Dysplastic” nevi are morphologically and biologically intermediate between “common acquired” nevi and melanoma.
- C. “Dysplastic” melanocytic nevi (or a host of other terms used for these melanocytic nevi) can occur in moley and non-moley individuals.
- D. Melanomas usually arise *de novo*, not in conjunction with melanocytic nevi.
- E. Melanomas, when they occur in conjunction with nevi, can occur with *any* pattern of melanocytic nevus.

Answer: B

To this day, there are two principal points of view. One is that “dysplastic” nevi are on a continuum morphologically and biologically, essentially “on their way,” to becoming melanomas. The other rejects this and advocates that these “dysplastic” nevi are simply one pattern of many in melanocytic nevi (commonly referred to as lentiginous nevi and Clark’s nevi) and are the most common pattern of all melanocytic nevi. All types of melanocytic nevi can harbor zones of fibroplasia; it is a non-specific finding. Most melanomas arise *de novo*; when they occur in conjunction with melanocytic nevi, they are separate and distinct from them, and melanomas can occur with any type of nevus. “Dysplastic” nevi can occur in moley and non-moley people.

References:

Ackerman AB, Massi D, Nielsen TA. Dysplastic Nevus. Atypical mole or typical myth? Philadelphia: Ardor Scribendi; 1999; 429pp.

Clark WH Jr, Ackerman AB. An exchange of views regarding the dysplastic nevus controversy. *Semin Dermatol* 1989 Dec;8(4):229-50. Review. PubMed PMID: 2701712.

Clark WH Jr, Elder DE, Guerry D IV, Epstein MN, Greene MH, Van Horn M. A study of tumor progression: the precursor lesions of superficial spreading and nodular melanoma. *Hum Pathol*. 1984 Dec;15(12):1147-65. PubMed PMID: 6500548.

Goldstein AM, Tucker MA. Dysplastic nevi and melanoma. *Cancer Epidemiol Biomarkers Prev*. 2013 Apr;22(4):528-32. Doi: 10.1158/1055-9965.EPI-12-1346. Review. PubMed PMID: 23549396; PubMed Central PMCID: PMC3616416.

Hurt MA. The melanocytic nevus described by Clark et al. What is its nature? What should it be named? An answer from history and from logic. *J Cutan Pathol*. 2005 Aug;32(7):457-60. PubMed PMID: 16008688.

Question 3:

Historically, the concept of the dysplastic nevus syndrome (B-K mole syndrome) arose from observations on:

- A. Patient studies of mole family members in the early 20th century.
- B. Patients with *de novo* melanoma and no family history of multiple nevi.
- C. Patients with few clinical melanocytic nevi.
- D. Patients with melanoma with family members harboring melanoma.
- E. Patients with well characterized melanocytic nevus patterns.

Answer: D

Clark et. al., in 1978, proposed the concept of B-K mole syndrome based on studies of 37 patients from 6 families prone to develop melanomas. They were the first to attempt to characterize in detail the histopathology of the melanocytic nevi in these patients, although a number of researchers in the latter half of the 20th century commented on mole patients with melanoma and family members with melanoma prior to the article by Clark, et. al. As far as is known currently, the article by Norris, in 1820, is the first documentation of such a family, although histologic techniques for tissue examination were unavailable.

References:

Clark WH Jr, Reimer RR, Greene M, Ainsworth AM, Mastrangelo MJ. Origin of familial malignant melanomas from heritable melanocytic lesions. 'The B-K mole syndrome'. Arch Dermatol 1978 May;114(5):732-8. PubMed PMID: 646394.

Norris W. Case of fungoid disease. Edinburgh Med Surg J 1820; 16:562-565