

APPROACH TO MELANOMA DIAGNOSIS

When doing your general skin exam look for, and get checked, any mole, spot, or bump that seems to stand out because of being dark, different, or changing!

In addition, when examining a single mole of **any** size, learn to look for and recognize the following features. These are the ABCDEs of melanoma, and most melanomas have at least one of these features.

A for **A**symmetry-Does any one half of a mole look different from the other half in color and/or shape?

B for irregular **B**order-Does a mole have an irregular, jagged, or blurred border?

C for variation in **C**olor-Does a mole have different colors or different shades of one color?

D for **D**ark-Does a mole appear dark, or does any area within a mole appear dark? Looking for any mole that appears dark anywhere often helps identify moles that have other features of concern.

E for **E**volving-Has a mole changed, or has a mole, spot, or bump evolved in a way differently from other moles, spots or bumps on your body?

One general rule is that any mole that looks different from all of your other moles (so-called “ugly duckling” sign) should get evaluated. In addition, sometimes the worst melanomas can be recognized primarily because they grow quickly and look different from any other bump you have. These “nodular melanomas” can be any color, including black, blue, red, pink, or flesh-colored.

“What we see depends mainly on what we look for.” John Lubbock, English naturalist and archaeologist.

“The little things are infinitely the most important.” Sherlock Holmes

A New, Unifying, More Aggressive Approach for the Earlier Clinical Diagnosis of Melanoma

New: Increased emphasis on heuristic approach; increased emphasis on dark as a heuristic and as a criterion; rejection of diameter criterion and emphasis on identifying lesions of concern of any size

Unifying: Inclusion of emphasis on change and ugly duckling identification as well as ABCDE (with D for dark) criteria; emphasis on complementary utilization of these approaches; inclusion of special description of nodular melanomas, including amelanotic ones

More Aggressive Clinical Diagnosis of Earlier Melanoma: Inherent in 1) elimination of diameter criterion and addition of instruction to look for and recognize features of concern in moles of **any** size and 2) addition of single criterion of darkness essential to recognition of many earlier melanomas; should also be combined with increased willingness to biopsy smaller lesions

But not all melanomas are dark . . .

The feature of darkness should not be held to a stricter standard than other criteria. It is acknowledged and accepted that no current criterion is present in all melanomas. The sensitivity of the 6mm diameter criterion for the earliest melanomas may be zero. What should be recognized is that the feature of darkness:

- 1) enhances other strategies to diagnose melanomas of all sizes;
- 2) is probably the most important feature to enhance the diagnosis of small, and early, melanomas, including nodular melanomas; and
- 3) is non-redundant. This contribution is critical. Many melanomas can be diagnosed earlier because of, and only because of, an increased emphasis on the feature of darkness.

It is worth considering the perspective that fewer than 70% of patients diagnosed with a heart attack have chest pain on presentation to the hospital (*JAMA*, 2000).

Perspective on Biopsy Rate for Small-Diameter Lesions

1) Precedent in dermatology: Examples: treating A.Ks (1/10 lifetime risk of low-grade SCCA), excision of nevus sebaceus (when thought to have 1/10 lifetime risk of BCCA), excision of intermediate-diameter congenital nevi (unknown but less than 1/20 lifetime risk of melanoma, sometimes general anesthesia required for excision). Considering these perspectives, excision of a small-diameter lesion would be justified if the risk at that point in time of melanoma were exceedingly small.

2) Precedent in other specialties: For example, 2008 Gastroenterology guidelines advocating strategy to prevent and not just detect colon cancer, emphasizing increased utilization of colonoscopy for the detection and excision of non-obligate, smaller precursor lesions.

3) Cost: Assuming our society's accepted cost of \$50,000.00 per quality-adjusted life year saved and \$200.00 per biopsy (including path, 2011 Medicare rates: non-excisional bx, \$158.95; excision, 1-5mm, \$170.91; 6-10mm, \$203.84), if one in 250 biopsies saved one year of one person's life, then the cost would be justified. Since the average life years lost per fatal melanoma is 18.0 years, the cost would be justified if one of every 4500 lesions biopsied would have prevented a death from melanoma. These cost justifications do not even consider the enormous and ever-increasing cost savings likely from earlier diagnosis (decreased staging, SNB, chemo . . .).

4) Sensitivity of diagnosis: A study reported in the April, 2008 *Archives of Dermatology* is particularly relevant. When evaluating dermoscopic images, and with information about patient sex, age, and lesion location, this group of expert dermoscopists would not just have misdiagnosed but would have totally missed, i.e. would not even have biopsied, 29% of small-diameter melanomas. That more than one in four melanomas would have been missed reflects some combination of an inappropriately low index of clinical suspicion with an inappropriately high threshold to biopsy these lesions.

5) Patient preference/expectation: The frequent and sincere patient responses to me when I discuss the possibility of a biopsy to evaluate for melanoma are, "Doc, if there's any chance, take it off," and, "I'd rather be safe than sorry." Patients expect 100% sensitivity of diagnosis of melanoma from their dermatologist. The appropriate biopsy rate from the patient's perspective is whatever it takes not to miss a melanoma.