Darkness May Trump Diameter in Melanoma Dx

BY KERRI WACHTER

BOSTON — Lesion darkness would make a better criterion for identifying early melanomas than the 6-mm diameter cutoff in the ABCDE criteria currently used by dermatologists and patients, according to Dr. Stuart Goldsmith.

"It's recognized that all melanomas start as a single cell or a few cells. So microscopically, they're already cancer, but we're not even telling patients to look for small lesions," he said.

"If we were doing okay [in terms of mortality], then it wouldn't matter. The fact is that we are not doing as well as we want to for our patients," Dr. Goldsmith said at the American Academy of Dermatology's Academy 2009 meeting. "More than 8,000 Americans die every year of melanoma—most from cutaneous lesions, lesions on the skin that could have been removed when smaller than 6 mm and in time to save the patient's life.

Darkness is the criterion that 'seems to have the most impact on recognition of the smallest melanomas.'

DR. GOLDSMITH

"Dermatology is simply not on the same page as other specialties in terms of cancer surveillance by the very existence of the diameter criterion," he said. Specialties that have had more success than dermatology in decreasing cancer mortality rates are looking for smaller, earlier lesions, Dr. Goldsmith noted. The European Society for Medical Oncology has already eliminated the diameter criterion for melanoma detection (Ann. Oncol. 2009;20[suppl. 4]:129-31).

Although the ABCDE criteria are intended to enhance the diagnosis of early melanoma, Dr. Goldsmith related that some dermatologists suggest that elimination of the diameter criterion would lead to too many biopsies. "In other words, it's become a cost issue," he said.

"I'm not saying that saving money shouldn't be a priority. It just shouldn't be a priority of these criteria," he said.

Dr. Goldsmith contends that the concerns about cost are unjustified. He used Medicare rates for 2009 in Albany, Ga., where he practices dermatology, to develop a specific cost model to assess the argument that excision and pathology for smaller suspect lesions would increase costs. He used a cost of $94 for excisions 1-5 mm in diameter and a cost of $116.54 for excisions 6-10 mm in diameter. Pathologic evaluation (at Emory University in Atlanta) cost $66, yielding a total cost of $160 for lesions 1-5 mm and $182.54 for lesions 6-10 mm.

"Assuming our society's accepted cost of $50,000 per quality-adjusted life-year saved, and rounding up to $200 per excision, if 1 in 250 excisions saved 1 year of one person's life, the cost would be justified," he said. Given that the average life-years lost per fatal melanoma is 18.6 (based on the Surveillance, Epidemiology, and End Results database), the cost would be justified if 1 in every 4,650 small-diameter lesions excised would have prevented a death from melanoma. "This cost justification is valid even if there would be no cost savings," he said.

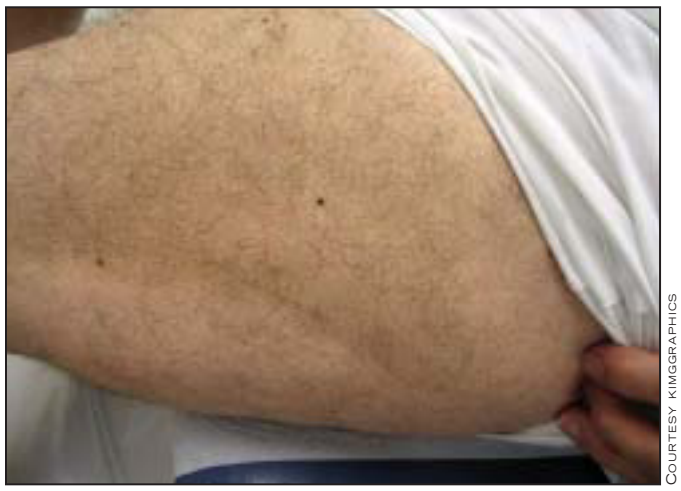
Models to decrease the cost of melanoma have emphasized the need to diagnose earlier invasive and in situ disease. The estimated treatment of stage III and IV disease accounted for 90% of costs from melanoma. Disease caught earlier could avoid much of this cost (J. Am. Acad. Dermatol. 1998;38:669-80).

Therefore, an increase in small-diameter biopsies would not lead to unacceptable costs and may even result in cost savings, he said.

A cost analysis must also include a discussion of the number of lesions needed to excise (NNE), or biopsy, to diagnose one melanoma. NNE should be discussed only in the context of sensitivity of melanoma diagnosis.

Dr. Goldsmith highlighted two articles from 2008. In the first study, the NNE for small-diameter lesions (6 mm and smaller) was 1 in 24, while the NNE for larger lesions was approximately 1 in 8 (Arch. Dermatol. 2008;144:469-74). The authors concluded that the 6-mm criterion remains useful and that their biopsy rate for smaller lesions was appropriate.

In the second article, however, the study's group of expert dermoscopists would not only have misdiagnosed but would have totally missed—would not have biopsied—29% of small-diameter melanomas. Lesions were evaluated using dermoscopic images with information given about the patient's age, sex, and lesion location (Arch. Dermatol. 2008;144:476-82).



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More biopsies of smaller lesions may avoid the possibility of "a critical delay in the recognition of a melanoma."

Many patients express the preference to be safe rather than sorry if there is any risk of a lesion being a melanoma. "That desire should be considered when evaluating the results of the two studies just discussed. Would a patient who would rather be safe than sorry think that a risk of 1 in 24 for the excision of a small-diameter lesion was appropriate if he or she was also given the information that the diagnosis of more than 1 in 4 small-diameter melanomas may be missed?" he asked.

Studies show that patients find their melanomas more often than physicians do. Unfortunately, the lesions found by patients are likely to be deeper or more advanced than those that physicians find. "The fact that patients would monitor for smaller lesions and start the process of getting in to see the doctor to get a lesion checked as early as possible could hopefully avoid what could end up being a critical delay in the recognition of a melanoma," he said.

Dr. Goldsmith also addressed lesion darkness. "The single criterion that seems to have the most impact on recognition of the smallest melanomas is the criterion of darkness," he said.

The singular importance of darkness for the diagnosis of small-diameter melanomas has been described in several series (Tumori 2004;90:128-31; J. Eur. Acad. Dermatol. Venereol. 2007;21:929-34; Arch. Dermatol. 1998;134:103-4). These reports suggest that, "when evaluating a lesion of unknown history, an 8-mm lightly pigmented macule with symmetric variation in pigmentation—two of the four current ABCD features—is of less concern than a 3-mm, circular, evenly pigmented black macule or papule with none of the four current ABCD criteria," Dr. Goldsmith said.

In other words, the criterion of darkness is a stand-alone, nonredundant feature to help recognize melanomas. "It just doesn't make sense that darkness is currently not even one of four objective criteria used in educational strategies related to melanoma recognition," he said.

Dr. Goldsmith also provided evidence that increased emphasis on the criterion of darkness enhances other strategies to diagnose melanomas, including early recognition of asymmetry in melanomas (Arch. Dermatol. 1994;130:1013-7), recognition of change in melanomas, (Br. J. Dermatol. 1999;141:783-7), and identifying small "ugly ducklings" that are melanomas (Arch. Dermatol. 1998;134:103-4).

"Changing the D from diameter to dark would accomplish two goals: We would not deter the recognition of smaller melanomas, and we would educate patients and the public about how to recognize many smaller lesions of concern," he said. This change would represent a true evolution of the ABCDE criteria, he added. ■

A related video is at www.youtube.com/InternalMedicineNews (search for 68436).

Unexplained Erythema May Be Tied to Undiagnosed Cancer

BY CHARLES BANKHEAD

PRAGUE — Unexplained erythema should raise suspicion about a possible underlying malignancy, according to a review of cases at one Asian institution.

In an effort to determine the clinical implications of idiopathic erythema, Dr. Steven Thng and his colleagues at the National Skin Center in Singapore reviewed the records of patients evaluated for erythema from 2001 to 2005 and compared those patients with published case series as well as with data from the Singapore Cancer Registry.

Dr. Thng and colleagues identified 218 patients evaluated for erythema during the study period—108 cases (50%) were classified as idiopathic. Among patients with an identified cause of erythema, preexisting dermatoses (30%) and drug reaction (15%) were the most common diagnoses.

On follow-up, the researchers found idiopathic erythema was associated with visceral malignancy in 18% of patients and with cutaneous T-cell lymphoma in 5%.

"We recommend close follow-up with reevaluation for malignancy even if the initial investigation had been negative," Dr. Thng and colleagues said in a poster presented at the International Congress of Dermatology.

Few investigators have attempted to examine the natural history and potential clinical consequences of unexplained erythema, the researchers wrote. Moreover, previous studies primarily involved white populations.

Analysis of patients with idiopathic erythema showed that most were men (73%) and that idiopathic erythema tended to occur at an older age (69 years) when compared with erythema of known cause (62 years). Patients with idiopathic erythema tended to experience a slow onset of disease, which had an average duration of 22 days. They also experienced more episodes of disease (average of 1.75 episodes), compared with patients who had erythema of known cause (average of 1.32 episodes).

When compared with age-standardized cases in the cancer registry, patients with idiopathic erythema had more than a threefold greater risk of visceral malignancy. The study findings came from a review of Asian patients and may not be applicable to patients in other regions, Dr. Thng and his colleagues noted. They reported no disclosures. ■