Cost Issues Considered

Darkness *from page 1*

ed 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 data from his own practice (Medicare rates for 2009, Albany, Ga.) 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. In addition, either the excision or the cost of an additional procedure would likely be reduced in many patients because of the multiple procedure cost reductions, he explained.

"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 Surveillance, Epidemiology and End Results data), 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 costs 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).

In terms of cost alone, 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 only be discussed in the context of sensitivity of melanoma diagnosis.

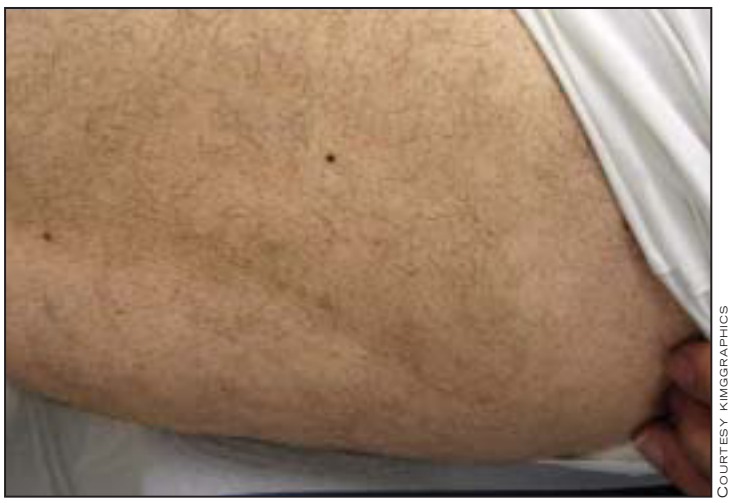
Dr. Goldsmith highlighted two articles from 2008. In the first study, the NNE for small-diameter lesions (those 6 mm and smaller) was 1 in 24, while the NNE for larger lesions was approximately 1 in 8 (Arch. Dermatol. 2008;144:469-74). The authors concluded that the 6-mm criterion remains useful and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

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 one in four 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.



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Lesions found by patients are likely to be deeper or more advanced than this melanoma in-situ with a mixed pattern.

Dr. Goldsmith next 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; and 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," said Dr. Goldsmith.

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. ■

Group Declares Tanning Beds 'Carcinogenic to Humans'

BY JONATHAN GARDNER

LONDON — International health officials declared UV-emitting tanning devices a human carcinogen after reviewing epidemiologic studies that indicate an association with cutaneous melanomas.

A working group of the International Agency for Research on Cancer raised the ultraviolet ray–emitting tanning devices to their Group 1 list of carcinogens, joining tobacco and tobacco smoke, asbestos, and human papillomaviruses.

The working group said a meta-analysis of 20 epidemiologic studies has shown that use of tanning devices before age 30 raises the risk of cutaneous melanomas by 75%. In addition, case-control studies indicate an increased risk of ocular melanoma when using these devices. "Therefore, the working group raised the classification of the use of UV-emitting tanning devices to Group 1, carcinogenic to humans," the report noted (Lancet Oncol. 2009;10:751-2).

"The link between sunbeds and skin cancer has been convincingly shown in a number of scientific studies now, and so we are very pleased that IARC have upgraded sunbeds to the highest risk category," Jessica Harris, health information officer with Cancer Research UK, said in a written statement.

"Given the dangers of sunbeds, we want the government to act now to ban under 18s from using sunbeds, close salons that aren't supervised by trained staff, and ensure information about the risks of using sunbeds is given to all customers," she noted.

The International Agency for Research on Cancer raised ultraviolet ray–emitting tanning devices to the same level as tobacco, asbestos, and human papillomaviruses.

Based on animal studies, exposure to ultraviolet radiation was also added to the Group 1 list, and exposure to solar radiation was reaffirmed as carcinogenic, according to the authors.

The working group also reaffirmed as Group 1 carcinogenic agents internally deposited radionuclides that emit alpha or beta particles, such as radon. Humans can be exposed to radon through soil and building materials. Also in Group 1 are x-rays, gamma radiation, phosphorus-32, radium-224, and a number of other radioactive materials involved in medicine or manufacturing.

The carcinogenic classification probably will not be enough to convince hard-core tanners to abandon their bronzing, said Mark Leary, Ph.D., director of the social psychology program at Duke University in Durham, N.C.

"I suspect that some people will rethink the importance of a tan with the new labeling, but I don't expect it to make a great difference," Dr. Leary said. "The perceived value of being tanned in terms of enhancing one's appearance and social acceptance is simply too strong."

Another reason that die-hard tanners probably won't quit—the short-term benefits of looking good carry more weight than the possibility of skin cancer 20-30 years down the road, Dr. Leary added.

He explained that tanning behaviors aren't likely to change unless the norms of attractiveness change so that paler skin becomes preferable. In the 1800s, for example, being tanned was a signal that you were a farmer or outdoor laborer, while pale skin signaled that you had an indoor, professional job, Dr. Leary said.

"Only after the Industrial Revolution moved much of the working class inside factories [where they developed pale skin] did being tanned signal status," he said.

The carcinogen message alone is unlikely to discourage teens and young adults from tanning, Dr. Leary added.

But Dr. Leary's previous research showed that an essay about the negative effects of tanning on appearance was more effective in reducing tanning than an essay about skin cancer. A publicity campaign featuring images of wrinkled, saggy skin in relatively young people might make an impact, he said. ■