

# Unexplained Changes in Nail Warrant Biopsy

BY DIANA MAHONEY

BOSTON — The threshold for biopsying unexplained nail dystrophy or discoloration should be low, according to Dr. Phoebe Rich.

Although most nail unit lesions are benign, “malignancies are not as obvious to spot clinically as you would think,” and a missed or delayed diagnosis can be life threatening, Dr. Rich said at the American Academy of Dermatology’s Academy 2009 meeting.

Any unexplained solitary, painful, dystrophic nail, particularly in an elderly patient, should be biopsied to rule out squamous cell carcinoma of the nail bed. Any pigmented band of unknown etiology, especially in white patients, requires a biopsy to rule out melanoma, said Dr. Rich of the department of dermatology at Oregon Health and Science University in Portland.

The presence of certain clinical signs and symptoms can offer clues to the diagnosis of malignant neoplasms. For example, Dr. Rich said, squamous cell carcinoma of the nail may present as longitudinal erythronychia (a pinkish band extending from the nail matrix), as a nodule or tumor with or without nail

loss, as a wartlike periungual lesion with nail splitting and skin fissure, or as a draining subungual mass. Because these presentations mimic other clinical entities, “you have to biopsy to get an accurate diagnosis.”

For the aforementioned lesions, “you can take a punch or a shave [nail bed] biopsy, and once you have a diagnosis, you can refer the patient for Mohs,” Dr. Rich said.

Subungual melanoma arises from the nail matrix and often presents initially as longitudinal melanonychia, Dr. Rich said. The differential diagnosis for melanonychia is broad, however, and includes benign nevi, lentigo in the nail matrix, genetic and ethnic-type pigmentation, subungual hematoma, drug-induced pigmentation, vitamin-deficiency fungal infections, and squamous cell carcinoma in situ, she said.

A high index of suspicion for melanoma should exist with lesions that



Subungual melanoma, which arises from the nail matrix, often presents initially as longitudinal melanonychia.

begin under the nail and extend outward onto healthy skin around the nail (Hutchinson’s sign), if there is variability in the pigmentation of the band, if the pigmented band is widening or growing, or if there is bleeding or signs of ulceration, Dr. Rich explained.

Although pigmentary changes can offer a clue to the presence of melanoma, a certain percentage of nail melanomas are amelanotic, Dr. Rich said. Amelan-

otic melanomas of the nail bed may resemble chronic paronychia or other benign nail conditions, she said.

For suspected nail melanoma, a nail matrix shave biopsy is sufficient, “unless you suspect advanced melanoma, which is characterized clinically by a dystrophic nail plate in addition to the pigmentation,” Dr. Rich said. “In that case, a full thickness biopsy is needed.”

For large lesions located in the lateral third of the nail, she added, “a longitudinal nail biopsy yields the best information because it

samples the nail matrix, nail bed, nail fold, and hyponychium.”

Patients are typically apprehensive about nail surgery, so the onus is on the clinician to reassure them that it can be done painlessly by using appropriate and effective anesthesia, she noted.

Dr. Rich has received advisory board honoraria from Abbott Laboratories and investigator grants from Centocor Inc., Wyeth, and Genentech Inc. ■

## Group Calls Tanning Beds ‘Carcinogenic to Humans’

BY JONATHAN GARDNER

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

A working group of the Interna-

**The officials assigned ultraviolet ray-emitting tanning devices to the same level as tobacco, asbestos, and human papillomaviruses.**

tional Agency for Research on Cancer assigned 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 that a meta-analysis of 20 epidemiologic studies has shown that use of tanning devices before age 30 years 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 said (Lancet Oncology 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 to 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 said.

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 of the report.

The working group also reaffirmed that internally deposited radionuclides that emit alpha or beta particles, such as radon, are group 1 carcinogenic agents. Humans can be exposed to radon through soil and building materials.

Also included in group 1 are x-rays, gamma radiation, phosphorus-32, radium-224, and a number of other radioactive materials involved in medicine or manufacturing. ■

## Among Indoor Tanners, More Women Understand Cancer Risk

BY BRUCE JANCIN

DENVER — Less than 12% of women and less than 7% of men who tan indoors are regular users of sunscreen, according to a national survey of white adults.

Overall, women who use tanning parlors have a better understanding of the associated risks than men who do so. Of women who tan indoors, 38% are aware that the practice increases their skin cancer risk, compared with 11% of men, Kelvin Choi reported at the annual meeting of the American Association for Cancer Research.

Similarly, 27% of women who tan indoors see themselves as being at high risk of skin cancer, and another 17% see themselves as at moderate risk. In contrast, only 3% of men who tan indoors see themselves as at high risk, and 4% see themselves as at moderate risk, said Mr. Choi of the University of Minnesota, Minneapolis.

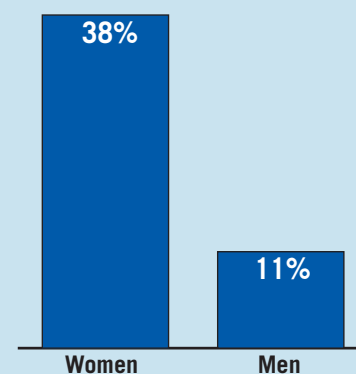
Most studies on indoor tanning practices have focused on adolescents and young women. Addressing this limitation, Mr. Choi and his associates analyzed data from the National Cancer Institute 2005 Health Information National Trends Survey to look at knowledge and attitudes regarding skin cancer prevention among a randomly selected subset that included 2,869 white men and women aged 18-64 years.

Overall, 18% of the women and 6% of men reported tanning indoors within the prior year. Indoor tanning was most popular in the Midwest; women living there were 2.5 times more likely to use tanning

beds than those in the West, where the use was least frequent. Midwestern men were 2.9-fold more likely to tan indoors than Westerners.

In the peak age category for indoor tanning—18- to 24-year-olds—36% of women and 12% of men reported having used a tanning bed in the past year. Individuals with at least some college education and who earned more than \$35,000 annually were more likely to tan indoors. Men living in a metropolitan area were 3.3-fold more likely to tan indoors than those living elsewhere. In contrast, women were equally likely to tan indoors regardless of geographic area. ■

### Indoor Tanners Aware of Their Increased Cancer Risk



Note: Based on data from 2,869 white men and women aged 18-64 years. Source: Mr. Choi