

Daily Sunscreen May Block Later BCC, Melanoma

Data from an Australian clinical trial offer the first evidence of a protective effect against skin cancer.

BY BRUCE JANCIN
Denver Bureau

AMSTERDAM — A landmark Australian study has provided the first glimmer of evidence that daily sunscreen use might reduce the incidence of both basal cell carcinoma and melanoma years later, Dr. Adele Green reported at the 11th World Congress on Cancers of the Skin.

This same community-based clinical trial, the Nambour Skin Cancer Study, also showed far more convincingly that 4.5 years of daily sunscreen application resulted in a highly significant 38% reduction in the incidence of squamous cell carcinoma (SCC), compared with discretionary use of sunscreen. This benefit persisted—and actually even increased in magnitude—for 8 years after the end of the intervention, said Dr. Green, head of the cancer and population studies group at the Queensland Institute of Medical Research, Brisbane.

Nambour is a subtropical Australian community with skin cancer rates that are among the world's highest. The Nambour study involved 1,621 adults who in 1992 were randomized to 4.5 years of daily application of a broad-spectrum SPF 17 sunscreen to the head, neck, forearms, and hands, or to a control group in which sunscreen use was discretionary and less frequent.

During 1993-2005, 21 melanomas—8 in the intervention group and 13 in controls—were diagnosed on target skin areas during blinded skin exams. That translated into incidence rates of 70 and 113 cases per 100,000 person-years, respectively,



for an intriguing, albeit statistically non-significant, 39% relative risk reduction for melanoma in the daily sunscreen group, she noted.

"The likelihood that we'd see enough melanomas in a community study to reach firm conclusions was always slim. If we had a trial about 100 times this size, we might have been able to bring the confidence limits down to reach significance. But this is the first suggestive evidence we've ever had from an intervention trial

'If the intervention started earlier in life and continued for longer we [might have seen] more definitive results.'

DR. GREEN

showing a protective effect of sunscreen on melanoma," Dr. Green said at the meeting, which was sponsored by the Skin Cancer Foundation.

And, for reasons both ethical and practical, it is probably the only large sunscreen intervention trial in melanoma that will ever be done, given that the study convincingly showed that daily application prevents SCCs, she noted.

There was a nonsignificant 13% relative risk reduction in histologically confirmed basal cell carcinomas (BCCs) during 1993-2004 in the intervention group. During late follow-up in 2001-2004, fully 5-8 years after the intervention ended, the BCC rate was 2,548 per 100,000 person-years in the intervention group and 3,408 per 100,000 person-years in controls. That's an adjusted 25% relative risk reduction—again, not statistically significant, but getting closer, as would be anticipated if BCCs have a more prolonged pathogenesis than do SCCs.

"I suspect if the intervention started earlier in life and continued for longer we'd see more definitive results," Dr. Green continued.

An increased late benefit for daily sunscreen use was well documented with regard to SCC prevention.

During late follow-up in 2001-2004, there were 29 histologically confirmed SCCs in the intervention group and 59 confirmed in controls, for a highly significant 51% reduction in relative risk, compared with the 38% reduction for 1993-2004.

A second line of evidence suggesting that sunscreen protects against BCC comes from an analysis of study participants who had more than one BCC during the intervention phase.

Second BCCs occurred at a mean of 30.8 months after the first in the daily sunscreen group, compared with a 25.7-month delay in controls. Third BCCs occurred at a mean of 24 months after the second in the intervention arm and a mean of 19.3 months in controls. This worked out to an adjusted 30% retardation in the occurrence of a second BCC, and a 41% delay for the third in the intervention arm.

Sun exposure during and after the intervention period was similar in both study arms. Of participants in the inter-

vention arm, 25% used sunscreen regularly after the intervention period, as did 18% of controls, a modest difference that was adjusted for statistically.

Dr. Jean-Jacques Grob, professor of dermatology at the Université de la Méditerranée, Marseille, France, said that he believed that the Nambour trial was "the most important study ever done regarding sunscreens."

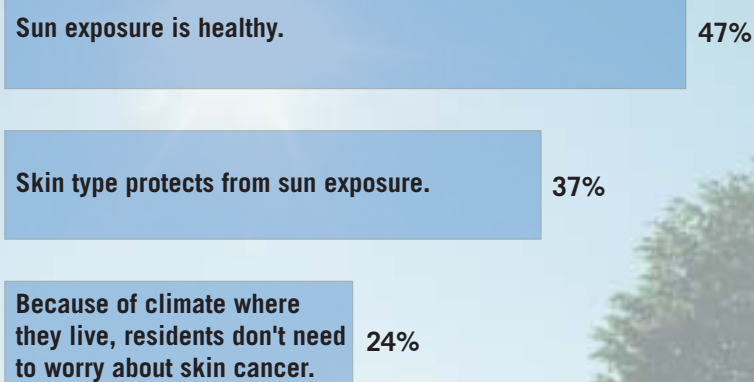
Dr. Allan C. Halpern said that the long-term Nambour BCC and melanoma findings were the most important take-home findings.

"Many of us have thought all along that if one started sun protection early enough, it should have a delayed effect on BCC and melanoma, and Dr. Green's point estimates suggest that.

"There's no statistical significance, but I still think it's very interesting data. The confidence intervals are narrowing," noted Dr. Halpern, who is the chief of the dermatology service at Memorial Sloan-Kettering Cancer Center, New York, and the cochairman of the National Council on Skin Cancer Prevention.

DATA WATCH

American Adults' Beliefs About Sun Exposure



Note: Based on a national online survey of 3,342 respondents, conducted Feb. 5-13, 2007.
Source: American Academy of Dermatology

Tanning Beds Implicated

Melanoma Trends from page 1

(SEER) data that compared the rates of invasive melanoma between 1987-1989 and 1997-1999 indicate that, for men, the majority occurred in those over age 45 years.

"The newer data between 2000 and 2002 show the same thing," Dr. Rigel said. "The younger age group appears to be flat; the older age group appears to be rising."

SEER data for women show the same trends for the 1987-1989 and 1997-1999 study periods. Data from 2000-2002, however, show that the rates of melanoma are rising among women who are younger than 45 years old, most likely because of the use of tanning beds.

SEER data also show that changes in melanoma rates in the United States differ by race. Between 1992 and 1999, the annual increase in incidence of melanoma was 3% among whites, 4% among Hispanics, and 4.9% among African Americans. Physicians need to be aware of this when "looking at African Americans with a pigmented lesion, especially on the plantar or palmar areas," Dr. Rigel advised. "They typically do worse, given the fact that they often present [to physicians] late."

According to the World Health Organization, melanoma "is increasing faster than any other cancer worldwide despite everything we're doing," he said.

"So clearly, we're not quite winning the battle yet."

The good news is that the 5-year survival rate in the United States is improving. "That's probably due to the fact that we are detecting and treating the melanomas earlier," he said.

A recent report noted that the 5-year survival rate for melanoma patients diagnosed between 1995 and 2002 was 92%, up from a rate of 86% for those diagnosed between 1985 and 1989 (CA Cancer J. Clin. 2007;57:43-66).

The report added that an estimated 7,900 people in the United States died from melanoma in 2006 and that an estimated 8,100 are expected to die from the disease in 2007. "That, to me, is the bottom-line report card," Dr. Rigel said. "We still need to do more in this area."

Dermoscopy, Total Body Photos Close to New Standard of Care

MAUI, HAWAII — If dermoscopy and total body photography for early detection of melanoma aren't now the clinical and legal standard of care in dermatology, they're awfully close, Dr. Allan C. Halpern said at the annual Hawaii Dermatology seminar sponsored by Skin Disease Education Foundation.

There is compelling evidence that total body photography (TBP) aids in identifying skin lesions of concern while dermoscopy helps in further evaluating them, said Dr. Halpern, chief of the dermatology service at Memorial Sloan-Kettering Cancer Center, New York.

TBP permits detection of

subtle melanomas that lack the classic clinical features. This year, the Center for Medicare and Medicaid Services allowed reimbursement for TBP.

In one meta-analysis, dermoscopy resulted in a marked improvement in diagnostic accuracy. Naked-eye clinical examination of lesions by experienced physicians had only a middling 70% sensitivity and 75% specificity for diagnosis of melanoma. This rose to 83% and 86%, respectively, with dermoscopy (Arch. Dermatol. 2001;137:1343-50).

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—Bruce Jancin