

# Pancreas Transplantation Ups Skin Cancer Risk

*The cumulative incidence of skin cancer 10 years after the transplant is nearly 20%.*

BY DENISE NAPOLI

FROM THE ANNUAL MEETING OF THE AMERICAN COLLEGE OF MOHS SURGERY

NEW YORK — Recipients of pancreas transplants had a 19.6% cumulative incidence of developing skin cancer 10 years after transplant.

Moreover, those patients who developed squamous cell carcinoma (SCC) following transplant were found to have a 56% likelihood of developing a second SCC within 2 years, while patients who developed basal cell carcinoma (BCC) had a 36% chance of recurrence at 2 years.

The data, presented in a poster at the meeting, show that “intensive educational and preventative strategies should be targeted at the pancreas transplant population,” according to Dr. Joshua

Spanogle, a resident in the department of dermatology at the Mayo Clinic in Rochester, Minn.

Dr. Spanogle and his colleagues looked at 216 pancreas transplant recipients seen at a tertiary care center between 1996 and 2007. About half of the subjects were male, and the average age was 43 years, with a range of 21-71 years.

Overall, 107 patients in the study received their pancreas transplant following a prior kidney transplant and were referred to as the “pancreas after kidney” group.

A total of 67 patients received a pancreas transplant and did not receive a new kidney, and were known as the “pancreas transplant alone” group. Forty-two patients were in the “simultaneous pancreas-kidney” transplant group.

## VITALS

**Major Finding:** Pancreas transplant recipients had a cumulative incidence of subsequent skin cancer of 4.7% at 2 years, 12.7% by 5 years, and 19.6% by 10 years after transplant.

**Data Source:** A single-center chart review of patients seen at a tertiary care center from 1996 to 2007, presented in a poster.

**Disclosures:** Dr. Spanogle stated that he had no relevant financial conflicts to disclose.

For all transplant recipients, the cumulative incidence of developing any skin cancer was 4.7% by 2 years. The cumulative incidence rose to 12.7% by 5 years and 19.6% by 10 years post transplant, Dr. Spanogle reported at the meeting.

Looking at SCC specifically, the cumulative incidence was 2.8% at 2 years, 10.3% at 5 years, and 16.7% at 10 years. For BCC, the cumulative incidence rates were 2.4%, 7.8%, and 17.4% at 2, 5, and

10 years, respectively, he wrote.

Once patients were found to have an SCC, however, the chance of developing a second SCC within 2 years rose: There was a 56% cumulative incidence of subsequent SCC in that population.

The risk for a second BCC after an initial posttransplant BCC diagnosis was also high, though less dramatic: The cumulative incidence for BCCs

in the posttransplant, post-BCC-diagnosis population was 36%.

“None of the following variables were associated with an increased risk of skin cancer: type of transplant, induction therapy, initial immunosuppressive regimen, rejection status, or sex,” he pointed out.

Only age was a significant predictor of the development of skin cancer, with a hazard ratio of 1.05, according to the investigation findings. ■

## Use of Sunscreen Alone Does Not Prevent Melanocytic Nevi

*‘Sun avoidance and clothing are required for primary prevention in children.’*

BY BRUCE JANCIN

EXPERT ANALYSIS FROM THE 13<sup>TH</sup> WORLD CONGRESS ON CANCERS OF THE SKIN

MADRID — Sunscreens alone are not sufficient to prevent the development of melanocytic nevi in children, with consequent increased risk for melanoma later in life, results of numerous studies indicate.

“Sun avoidance and clothing are required for primary prevention in children,”

Dr. Claus Garbe stressed at the 13<sup>th</sup> World Congress on Cancers of the Skin.

This concept is not yet understood by the public at large.

“The public supposes that by using sunscreens regularly they protect themselves from cancer, but it’s a very poor quality protection,” said Dr. Garbe, professor of dermatology and head of the division of dermatology at Eberhard Karls University, Tübingen, Germany.

At least half a dozen studies dating back to the early 1990s have established that the most important risk factor for melanoma is a person’s total number of melanocytic nevi. With growing numbers of melanocytic nevi the melanoma risk increases almost linearly. Another independent risk factor is the presence of atypical nevi.

These risk factors are multiplicative, such that individuals with more than 100 melanocytic nevi and at least 5 atypical nevi are at close to 50-fold increased risk for melanoma.

“The message of these investigations is we are able to identify easily patients who are at elevated risk for melanoma development. That’s the case for about 5% of the Caucasian population. These are the persons we should have in a serial

**‘We would need 30 g for a one-time use of sunscreen, which is one tube. Nobody does this.’**

examination program for early melanoma detection,” he said at the meeting sponsored by the Skin Cancer Foundation.

In a cross-sectional study of 1,812 German children aged 2-7 years and their parents, Dr. Garbe and coworkers found that the melanocytic nevi counts increased from a median of 2 at age 2 years to 20 at age 7. Nevi counts were strongly related to the number of weeks spent on holidays in sunny climates, the amount of time spent in summer outdoor activities without sunburns, facial freckling, skin type, parental ethnicity, and the number of parental moles—but not to pre-

vious sunburns (Cancer 2003;97:628-38). In a subsequent analysis, the investigators found no significant protective effect for sunscreen use on melanocytic nevi counts, whereas a regular practice of wearing clothing at the beach or pool was inversely associated with the number of melanocytic nevi (Am. J. Epidemiol. 2005;161:620-7).

Next came a longitudinal interventional study in which Dr. Garbe and coinvestigators randomized 1,232 young German children in two cities to one of three study arms, each lasting 3 years: parental educational sessions three times per year on the importance of sun protection; parental education plus free broad-spectrum SPF 25 sunscreen; or a control group in which parents were informed of the importance of sun protection measures for their children only at an initial meeting. Sunscreen use proved to have no impact on the increase in melanocytic nevi counts over time, which was similar in all three groups (Int. J. Cancer 2005;116:755-61).

Australian investigators have also found that regular use of sunscreen was not associated with the number of melanocytic nevi in an observational study involving 1,623 children (Cancer Epidemiol. Biomarkers Prev. 2005;14:2873-6). The key factor related to the number of melanocytic nevi was the



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**In several studies of children, wearing clothing at the beach was inversely associated with melanocytic nevi counts.**

amount of time spent outdoors between 11 a.m. and 2 p.m. Children whose backs were covered by clothing less than 70% of the time they were outdoors had 53% more nevi than those whose backs were always covered.

This finding, coupled with the German studies, led to the ongoing North Queensland Sun-Safe Clothing Study, in which 652 Caucasian Aussie children up to age 3 years were randomized to parental education plus free UV-protective beach suits for the children or to usual care. At baseline the investigators didn’t find a significant relationship between reported use of sunscreen and melanocytic nevi counts (Am. J. Epidemiol. 2005;161:536-45). Long-term follow-up results with the number of new melanocytic nevi as primary

end point are due soon, and Dr. Garbe anticipates a positive result.

Asked why sunscreen usage doesn’t prevent melanocytic nevi, he replied the main reason is that sunscreens are far less efficient than their measured SPF rating would suggest.

“The SPF is measured using 2 mg of sunscreen per square centimeter of body surface,” he explained. “That would mean that with a roughly 1.5 m<sup>2</sup> body surface, after subtracting the hairy parts, we would need 30 g for a one-time use of sunscreen, which is one tube. Nobody does this. And the SPF decreases in logarithmic fashion, so if you use 7.5 g of a sunscreen with an SPF of 30-50, you only have an SPF of 3-4.”

Dr. Garbe reported having no financial conflicts in connection with these studies. ■