DISCLOSURE OF RELATIONSHIPS WITH INDUSTRY

Maritza I. Perez MD
F122: Skin Issues in Latino Patients
Skin Cancer in Hispanics in The USA

DISCLOSURES
Consultant for Cutera Lasers, and Scientific Advisor for Procter & Gamble
No conflicts
SKIN CANCER IN HISPANICS IN THE USA

Maritza I. Perez MD

Clinical Professor Dermatology Mt. Sinai Icahn School of Medicine and for eighteen years was at Columbia University; Director Cosmetic Dermatology Mt. Sinai St.Lukes Medical Center since 1997 and Associate Director of Procedural Dermatology Fellowship since 2014, Senior Vice President Skin Cancer Foundation since 2012, Solo Private Practice in New Canaan, Ct since 2013

Board Certified Dermatologist since 1984 and actively teaching residents in Dermatology since then, Immunodermatology fellowship at Columbia Presbyterian Hospital 1985-7, Immunodermatologist at Yale University from 1987-1993, Dermatologic, Cosmetic, and Laser Surgeon fellowship at NYU Medical Center 1993-4

Author of over 100 publications, 22 years Mohs, Laser and Cosmetic Surgery Experience
The US Census Bureau for 2000 documented 13% of the USA population was Hispanic, 15% for 2008, and projects that by the year **2050** 30% of the US population will be comprised of Hispanics. The other 25% will comprise Asians and African Americans.
ETHNICITY DOES NOT PREDICT SKIN COLOR
HISPANICS IN THE USA

51.9 million Hispanics lived in the U.S. in 2011...

U.S. Hispanic Population

5 million Latinos living in the U.S. in 2012

U.S. Hispanics

Projected U.S. Population Growth From 2010 to 2050

Excludes American Indian, Alaska Native, Hawaiian & Other Pacific Islander
Source: U.S. Census Bureau Population Projections

The Changing Face of America
How the demographic breakdown of the U.S. has changed

Total U.S. population by race/Hispanic origin

Pct. among those under 18

Data on Hispanics in 1970 not available; 1970 Hispanic numbers based on sample.
Source: Census Bureau
CANCER IN GENERAL AND NON-MELANOMA SKIN CANCER IN HISPANICS


- NMSC is the most common malignancy in USA over 3.5 million in over 2 million people, incidence rising at about 2.6% per year.

- In Hispanics, Loh et al showed at the AAD a retrospective 5 year one institution study that revealed an incidence of 3% for NMSC, in a population that is younger and mainly females as compared to Caucasian and Asians.
Ultrasound radiation is the single most common cause of skin cancer including non-melanoma skin cancer (NMSC) and malignant melanomas (MM).

UVA and UVB cause DNA mutations - thymidine dimers - that are the footprint for most skin cancers.

Chronic sun exposure is associate with NMSC and acute or seasonal sun exposure with MM in Caucasians and undetermined in darker skins.

90% of NMSC are associated with exposure to UV radiation.

Reported risk factors for MM in darker skin patients include albinism, radiation therapy, trauma, immunosuppression, and preexisting moles.

Tanning bed users increase their melanoma risk by 15% as compared to non-users, while doubling their risk for SCC.

Numerous ordinary moles, the presence of dysplastic nevus, family history of MM, freckles, severe blistering sunburns, and history of NMSC increases your chances for the development of MM.

Weakened immune system, genetic skin conditions, increases your chances to develop NMSC and MM.

Chronic ulcers with scarring, chronic inflammation and infection with human papilloma virus are associated with the development of SCC in blacks.
### Skin Cancer in Caucasians

<table>
<thead>
<tr>
<th>Type of Cancer</th>
<th>Primary Predisposing Factor</th>
<th>Most Common Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basal Cell Carcinoma</td>
<td>sunlight</td>
<td></td>
</tr>
<tr>
<td>Malignant Melanoma</td>
<td>unknown</td>
<td></td>
</tr>
<tr>
<td>(African Americans, Asians, Hawaiians, Native Americans, Darker-skinned Hispanics)</td>
<td>unknown</td>
<td></td>
</tr>
<tr>
<td>(Lighter-skinned Hispanics)</td>
<td>unknown</td>
<td></td>
</tr>
<tr>
<td>Squamous Cell Carcinoma</td>
<td>chronic, non-healing wounds/ulcerations, scars and chronic inflammatory skin conditions (e.g. discoid lupus, lichen slerosis, lichen planus)</td>
<td></td>
</tr>
</tbody>
</table>

**Basal Cell Carcinoma** (intermittent sun exposure)

**Squamous Cell Carcinoma** (cumulative sun exposure)

**Melanoma** (intermittent sun exposure, sunburns)
**BCC**

- Most common skin cancer in Caucasians, Hispanics, Chinese Asians, and Japanese estimated at 3.5 million diagnosed annually
- Second most common in African Americans and Asian Indians
- Incidence 1/100,000 in blacks, 6 in Chinese, 15-17 in Japanese, 50-171 Hispanics, and 185-340 in Caucasians
- 36% will arise in an Actinic keratosis
- Increased incidence in Hispanics in New Mexico

**SCC**

Most common cutaneous malignancy in African Americans and Asian Indians

Second most common skin malignancy in Caucasians, Hispanics, Chinese Asians and Japanese; and most nations around the world

Incidence 17-360/100,000 in Caucasians, 14-33 in Hispanics, 3 in African Americans and Chinese Asians

Tend to be more aggressive in African Americans in non-sun exposed areas with 20-40% risk of metastasis.

65% will arise in an Actinic keratosis
MELANO MA

- The 6th most common cancer in USA and the most common skin cancer among 25-29 y/o and second most common among 15-29 y/o
- Incidence in Caucasians 8-19/100,000, 4.7/100,000 for Hispanics, 0.5-1.5 for Asians and AA
- Early stage diagnosis 48% African Americans, 74% Hispanics and 91% Caucasians
- Most common type in Hispanics and Caucasians SSM; ALM for blacks and Japanese
- In the past two decades, melanomas incidence among Hispanics has risen by 20%
- Hispanic, Al/AN, API are younger at diagnosis
- Hispanics present with thicker tumors (>1mm, 35% to 25%), regional involvement (12 to 8%) and distant metastasis (7 to 4%) having the worst survival rate as compared to whites

Wu ZXC, Eide MJ, King J et al. JAAD 2011;65:S26-37
Pollack, Li, Berkowitz et al. JAAD 2011;65:S78-85
Disparity in Melanoma

A Trend Analysis of Melanoma Incidence and Stage at Diagnosis Among Whites, Hispanics, and Blacks in Florida

Shasa Hu, MD; Yisrael Parmet, PhD; Glenn Allen, MPH; Dorothy F. Parker, MHS; Fangchao Ma, MD, PhD; Panta Rouhani, PhD, MPH; Robert S. Kirsner, MD, PhD

Melanoma cases with known stage and race/ethnicity reported between 1990 to 2004.
(info obtained from the Florida Cancer Data System)

A cross-sectional and retrospective analysis

41,072 cases of melanoma

Incidence

WNH: 39,670
WH: 1148
AA: 254

Regional or Distant Metastasis at Diagnosis

WNH: 12%
WH: 18%
AA: 26%

Arch Dermatol. 2009;145(12):1369-1374
One hundred subjects of African American, Asian, or Hispanic descent were given an in-clinic survey concerning weekly sun exposure and sun-protective behavior.

Although 43% of subjects reported the ability to sunburn,

Only 35% perceived some risk of developing skin cancer,

There was a subset of patients who despite burning still believed that they were NOT at risk for skin cancer.

65% of participants believed that they were not at risk for skin cancer.

***The survey used for this study was adapted from one used by Jungers et al, which focused on skin cancer knowledge and behavior in a primarily nonethnic, nonpatient population.
The Verdict

1/3 of children with ethnic skin never used sunscreen

Adult perceptions may be perpetuated in children

ARCH DERMATOL/ VOL 145 (NO. 2), FEB 2009
### Skin cancer awareness in communities of color

<table>
<thead>
<tr>
<th></th>
<th>White (%)</th>
<th>Minority (%)</th>
<th>Minority vs white OR</th>
<th>$P$</th>
<th>African American (%)</th>
<th>Asian (%)</th>
<th>Hispanic (%)</th>
<th>Other (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has been to a doctor for a full body skin examination*</td>
<td>49/81 (61)</td>
<td>14/83 (17)</td>
<td>9.0</td>
<td>&lt;.0001</td>
<td>1/22 (5)</td>
<td>4/20 (20)</td>
<td>8/38 (21)</td>
<td>1/3 (33)</td>
</tr>
<tr>
<td>Has performed skin self-examination before*</td>
<td>44/82 (54)</td>
<td>26/83 (31)</td>
<td>2.4</td>
<td>.0176</td>
<td>15/22 (68)</td>
<td>5/20 (25)</td>
<td>14/38 (37)</td>
<td>0/3 (0)</td>
</tr>
<tr>
<td>Believes that skin cancer can happen in darker skin types</td>
<td>73/80 (91)</td>
<td>64/82 (78)</td>
<td>3.0</td>
<td>.0587</td>
<td>19/22 (86)</td>
<td>15/20 (75)</td>
<td>29/37 (78)</td>
<td>1/3 (33)</td>
</tr>
<tr>
<td>Has heard of the ABCDs for early detection of melanoma</td>
<td>21/79 (27)</td>
<td>11/82 (13)</td>
<td>2.1</td>
<td>.0894</td>
<td>4/22 (18)</td>
<td>4/19 (21)</td>
<td>3/38 (8)</td>
<td>0/3 (0)</td>
</tr>
<tr>
<td>Wears sunscreen*</td>
<td>77/80 (96)</td>
<td>53/82 (65)</td>
<td>14.1</td>
<td>.0012</td>
<td>15/21 (71)</td>
<td>15/20 (75)</td>
<td>21/38 (55)</td>
<td>2/3 (67)</td>
</tr>
</tbody>
</table>

OR, Odds ratio.

*Significant findings relative to combined minority groups ($P < .05$).
Incidence of melanoma among AA females in Florida was 60% higher than that of their female counterparts in the SEER catchment areas. Could UV light be playing a role?

Incidence of melanoma among Hispanic males in Florida was 20% higher than that of their male counterparts in the SEER catchment areas.

Incidence of melanoma among AA females in Florida was 60% higher than that of their female counterparts in the SEER catchment areas.

UV or NOT UV: that is the question

Arch Dermatol. 2010;146(7):741-746
**DID YOU KNOW** that everyone regardless of skin color can get sunburned? In fact, a survey conducted by the Center for Disease Control and Prevention revealed the following sunburn rates in each of the listed ethnic groups:

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>% of male respondents reporting at least one sunburn in the preceding year</th>
<th>% of female respondents reporting at least one sunburn in the preceding year</th>
<th>% of respondents reporting &gt;4 sunburns in the preceding year</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian/Alaskan Natives</td>
<td>30.4</td>
<td>21.5</td>
<td>19.6</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>16.2</td>
<td>16.1</td>
<td>15.5</td>
</tr>
<tr>
<td>Hispanics (dark skinned)</td>
<td>12.4</td>
<td>9.5</td>
<td>19.1 (light skinned)</td>
</tr>
<tr>
<td>African Americans</td>
<td>5.8</td>
<td>5.8</td>
<td>12.3</td>
</tr>
</tbody>
</table>

SUNBURNS ARE LIKE CIGARETTES...
White Hispanic students were more likely to tan deeply ($P=.04$) but less likely to have heard of ($P=.01$) or been told how to perform ($P=.01$) skin self-examination.

White Hispanics were 2.5 times more likely than WNHs to have used a tanning bed in the past year.

White Hispanic students also thought their chance of developing skin cancer was less than that of WNH students ($P=.01$), which remained significant after adjustment for age, sex, family history, and skin sensitivity to sun.

White Hispanics were also 60% less likely to have heard of skin self-examination ($P=.01$) and 70% less likely than WNHs to have ever been told to perform the examination ($P=.03$). Only 15% of Hispanic women perform skin-exams.

White Hispanics are about 1.8 and 2 times more likely to never or rarely wear protective clothing ($P=.01$) and to use sunscreen ($P=.01$), respectively. More than 43% of Hispanics never or rarely use sunscreens.


Three hundred and sixty nine high school students in Florida were surveyed

- 148 WNHs
- 221 WHs

Two populations with comparable skin phototypes and thus comparable risk of cutaneous malignancy, with different perceptions of skin cancer risk.

- Wear an SPF 15 or higher
- Wear sun protective clothing
- 60% less likely to have heard of self skin exam
- 70% less likely to have been told how to perform a self skin exam
- Thought their chances of developing skin cancer was less than that of WNHs

- Tan
- 2.5x more likely to have used a tanning bed in the past year
Why are there disproportionately high mortality rates for a disease which is largely curable in Caucasians?

Delayed diagnosis and treatment

Misconception that people of color don't get skin cancer

Less access to medical care and screenings

Lack of physician education directed at people of color
Patient and Physician Don’t Look for Melanoma

- Delay in Diagnosis
- Delay in Treatment
- Decreased Survival
Avoid exposure to mid-day sun
Avoid exposure to artificial sources of UV radiation
Wear long sleeves, long pants and wide rim hat while outdoors
Protect yourself from UV radiation penetrating clothing, windshields and windows
Protect from reflected UV radiation; sand, ice, snow
Protect yourself in higher elevations
Use broad spectrum sun blocks and sun glasses
DO NOT USE TANNING BEDS
See your Dermatologist frequently for complete skin exams
CONCLUSIONS

- Incidence of skin cancer
- Rates of SCC mets
- Higher MM mortality and tumor depth
- Incidence of BCC in warm climates
- Incidence of MM
- Higher MM mortality and tumor depth

Overall use of SPF and sun protective clothing
CONCLUSIONS

- Incidence of skin cancer
- Incidence of BCC in warm climates
- Rates of SCC metastases
- Incidence of MM
- Higher MM mortality and tumor depth

Overall use of SPF and sun protective clothing