Risk Factors in Elderly People for Lentigo Maligna Compared With Other Melanomas: A Double Case-Control Study

Objective: To assess lentigo maligna (LM) as an epidemiological entity separate from other melanomas (OMs) in elderly people.

Design: Double age- and sex-matched case-control study to compare the risk factors for LMs and OMs.

Setting: General community.

Patients: A total of 76 patients with LM were paired by age and sex with 76 patients with OMs and 152 controls.

Main Outcome Measures: The association of melanoma risk with the following potential risk factors: sun exposure history by 10-year periods, frequency of sunburns, phenotypic traits, density of freckles and sun sensitivity at age 20 years, counts of nevi larger than 2 mm in diameter on the face and forearm, skin aging features (as assessed using a photographic scale), and history of basal and/or squamous cell carcinomas.

Results: Risk of LMs and OMs were similarly associated with history of sunburns, light skin type, and freckling. Cumulative chronic outdoor and occupational sun exposures were not risk factors in any of the 2 groups of melanomas. Lentigo maligna differed from OMs by the absence of a detectable association with the number of nevi and a greater association with nonmelanoma skin cancers.

Conclusions: Although chronically sun-exposed skin is a prerequisite for LM, risk of LM does not increase with the cumulative dose of sun exposure, but LM is associated with sunburn history, like all other types of melanomas. The main epidemiological characteristic of LM is the absence of an apparent relation with the genetic propensity to develop nevi. This epidemiological profile is in accordance with recent molecular findings and may also account for the histoclinical and evolutive characteristics of LM.

2009;145(4):418-423

Adoption of Western Culture by Californian Asian Americans: Attitudes and Practices Promoting Sun Exposure

Objective: To investigate whether the adoption of Western culture is associated with attitudes and practices promoting sun exposure among Asian Americans.


Setting: Primarily northern California community groups via online survey.

Participants: Adult volunteers who self-identified as Asian American.

Main Outcome Measures: Results based on 546 questionnaires returned.

Results: The overall response rate was 74.4%. Multivariate regression analysis controlling for age and skin type showed that westernization (as determined by generation in the United States, location raised, or self-rated acculturation) was associated with attitudes and behaviors promoting sun exposure (including the belief that having a tan is attractive, negative attitudes toward use of sunscreen and sun protective clothing, and increased weekend sun exposure, lying out to get a tan, and tanning bed use) at a level of P < .05.

Conclusions: Our data suggest that adoption of Western culture may be associated with attitudes and behaviors promoting sun exposure among Asian Americans. This group should be targeted by dermatologists for increased education regarding sun protection, solar damage, and skin cancer prevention and detection.

Gorell E, Lee C, Muñoz C, Chang ALS
2009;145(5):552-556

Topical Fluorouracil for Actinic Keratoses and Photoaging: A Clinical and Molecular Analysis

Objective: To examine clinical and molecular changes after topical fluorouracil treatment of photodamaged human facial skin for actinic keratoses.

Design: Nonrandomized, open-label 2-week treatment with fluorouracil cream, 5%, followed by clinical and molecular evaluation.

Setting: Academic referral center.

Patients: Twenty-one healthy volunteers, 56 to 85 years old, with actinic keratoses and photodamage.

Interventions: Twice-daily application of fluorouracil cream for 2 weeks and biopsies and clinical evaluation at baseline and periodically after treatment.

Main Outcome Measures: Gene and protein expression of molecular effectors of epidermal injury, inflammation, and extracellular matrix remodeling 24 hours after fluorouracil treatment; clinical improvement measured by evaluators, photography, and patient questionnaires.

Results: One day after the final fluorouracil treatment, gene expression of the effectors of epidermal injury (keratin 16), inflammation (interleukin 1β), and extracellular matrix degradation (matrix metalloproteinases 1 and 3) was significantly increased. Types I and III procollagen messenger RNA were induced at week 4 (7-fold and 3-fold, respectively). Type I procollagen protein levels
were increased 2-fold at week 24. Actinic keratoses and photoaging were statistically significantly improved. Most patients rated photoaging as improved and were willing to undergo the therapy again.

**Conclusions:** Topical fluorouracil causes epidermal injury, which stimulates wound healing and dermal remodeling resulting in improved appearance. The mechanism of topical fluorouracil in photoaged skin follows a predictable wound healing pattern of events reminiscent of that seen with laser treatment of photoaging.


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**Access to Pediatric Trauma Care in the United States**

**Objectives:** To catalog trauma center resources and estimate access to age-specific trauma care for children younger than 15 years in the United States.

**Design:** Cross-sectional study collating information from national, state, and local trauma systems authorities to create a catalog of verified pediatric trauma centers (PTCs) and self-designated "candidate" trauma centers. Access-to-care calculations were estimated using all US block groups and prior validated methods.

**Setting:** United States.

**Patients:** Children in the US younger than 15 years.

**Main Outcome Measures:** The PTC statuses of hospitals in the United States. Percentages of pediatric populations (by state and population density) having access (by ground or air) within 60 minutes to a PTC.

**Results:** A total of 170 verified PTCs were identified in 41 states (including the District of Columbia). An estimated 71.5% of pediatric patients were within 60 minutes of a verified PTC by air or ground transport. 43% if ground transportation only was considered. An estimated 17.4 million children did not have access to a PTC within 60 minutes. Access ranged from 22.9% of the population in the most rural areas of the United States to 93.5% in the most urban. The addition of 24 candidate centers increased coverage to 77.4% of the pediatric population being within 60 minutes of a PTC.

**Conclusions:** Current pediatric trauma resources vary greatly by state and population density, with many children, particularly in rural areas, underserved. A thorough standardized catalog of verified PTCs is necessary to accurately assess pediatric trauma needs now and to optimize future trauma system planning for children.

*Nance ML, Carr BG, Branas CC* 2009;163(6):512-518

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