Rate of psoriasis readmission has decreased in the United States: A 9-year longitudinal nationwide study

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This study aims to study longitudinal trends of 30-day readmissions of psoriasis patients over time in the United States (US) using national population data. Data were obtained from the National readmission database (NRD). We performed a retrospective 9-year longitudinal trend analysis of NRD 2010 (year of inception)-2018 databases. We searched for index hospitalization records of patients aged ≥ 18 years with a principal or secondary diagnosis of psoriasis using ICD codes for the corresponding year. We excluded elective and traumatic readmissions. The trend in the 30-day readmission rate was our primary outcome. Multivariate logistic and linear regression was used to calculate adjusted p-trend for categorical and continuous outcomes, respectively. The rate of decrease in 30-day readmission rate was steeper for patients admitted with a principal diagnosis of psoriasis (16.7% in 2010 to 10.2% in 2018, adjusted p-trend = 0.002) compared to patients admitted with any diagnosis of psoriasis (12% in 2010 to 10.4% in 2018, adjusted p-trend = 0.0001). The proportion of readmitted patients with Charlson index score ≥ 3 increased from 0% in 2010 to 51.6% in 2018 (adjusted p-trend < 0.0001). Adjusted total hospital cost increased from 13,646 to 14,112 US dollars (adjusted p-trend = 0.001) in the most recent year for readmission. The rate of readmission has decreased for patients admitted principally because of psoriasis and all admissions of psoriasis patients; however, this decrease is more precipitous in 2018 (adjusted p-trend = 5.8 days in 2018 (adjusted p-trend = 0.0001)). Data show unique characteristics of a population with HIV and HS, suggesting a possible increased mortality and LOS decrease. These data may be useful due to better outpatient management and more effective treatment options available in recent times.

Geographical and environmental factors associated with melanoma incidence in Canada

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Background: We sought to examine the relationship between environmental factors and Canada’s distribution of melanoma incidence between 1992 and 2010. Methods: Data was obtained from the Canadian Cancer Registry, Canadian Vital Statistics, and the Canadian Urban Environmental Health Research Consortium. Multivariate regression models were obtained for forward selection areas (FSAs). Environmental variables included: normalized difference vegetation index (NDVI) as a proxy for green space, precipitation, yearly temperature, and number of weather events between 1992-2010. Environmental exposures were modeled as tertiels via a two-level random-effect generalized linear model to evaluate a dose-response relationship. Results: Across Canada, average annual temperature increased significantly (95%CI: 1.29, 1.35; p = 0.0001). Other significant variables include temperature, average amount of precipitation, as well as the average number of weather events of heat and rain. Greatest increases were observed in Newfoundland, PEI and Manitoba. A positive significant relationship between annual average temperature and melanoma incidence rate was confirmed (Beta = 6.23, 95%CI: 5.2, 9.23). With each increase in NDVI, the odds of melanoma doubled in high-risk FSAs compared to those with low-risk (OR = 2.72, 95%CI: 2.49, 2.97; & OR = 4.31, 95%CI: 3.91, 4.76; for tertiels 2 and 3 respectively). Discussion: Consistent strong positive relationships between the changes in environmental exposures and melanoma incidence were observed in this study. High ambient temperature leads to more time outdoors, less protective clothing, and greater number of sunburns. The presence of parks with an abundance of foliage may encourage the public to spend more time outdoors which can reduce UV exposure. Public health advice may be improved by taking account of both temperature and green space accessibility and their implications for behaviour.

The potential effect on hidradenitis suppurativa disease onset, progression, and diagnosis

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Much interest has recently developed in defining the relationship between HIV and the increased prevalence of chronic inflammatory diseases. The association between HIV and hidradenitis suppurativa (HS) remains poorly understood. Although it is an immunodeficiency syndrome, HIV patients experience more severe psoriasis and higher rates of postransplantation arteriosclerosis than patients without HIV, leading us to hypothesize that HIV may have a potential effect on HS disease onset and progression. Through this study we aim to further characterize the population of patients with comorbid HS and HIV and assess the rates of HS radiographic data. From 63 adults from the University of North Carolina Hospital, conducted using standardized data sets for HS and HIV through standardized ICD-9 and ICD-10 codes. This also included subjects with common ICD codes for diagnoses often confused for HS such as abscess, nodule, furuncle, and carbuncle for which chart review was performed and confirmed a clinical diagnosis of HS based on recurrent nodules and abscesses in interrogating locations. The data revealed features unique to concomitant disease compared to either condition alone. The age of onset for HS among those living with HIV and HS was lower than patients without HIV (20 years, compared to 21 years). Lymph node HS was diagnosed prior to HS onset in 61.8% of subjects. Both the late age of HS onset and high rate of HS onset after initial HIV diagnosis may suggest that people with HIV are particularly susceptible to developing HS. Only 37.3% of our cohort have an ICD code for HS. An analysis of a large cohort of HIV patients (n = 2,000) using concomitant HS and HIV showed a significantly lower incidence of HS diagnosis in HIV patients compared to HIV-negative controls. An analysis of inclusion criteria for 23 clinical trials in HS may be important for public health and HIV prevention. Further exploration of the association between HIV and HS incidence may be necessary to better understand the epidemiology of HS in this population.

Association of multiparity and venous insufficiency in Hispanic women

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Dermatologists commonly manage patients with chronic venous insufficiency (CVI). CVI affects about a third of adults in the USA and causes significant morbidity in diverse population groups. Risk factors for CVI include age, multiparity, family history, and obesity. However, factors such as ethnicity and race may also influence the development and progression of CVI. Information about ethnic differences in Americans with CVI is scarce. South Florida is a melting pot of racially diverse backgrounds with Miami-Dade County having the largest minority population. Through a cohort of patients with CVI in South Florida, we sought to further characterize the racial and ethnic disparities of CVI. We designed a longitudinal, rolling enrollment cohort study with retrospective chart review of all new patients diagnosed with CVI. A total of 518 Hispanic patients were enrolled, and 518 Hispanic patients with CVI were more likely to report higher frequency of pregnancy (z = 3.3026, p value < 0.01). Because number of pregnancies can influence the CVI severity, understanding differences in pregnancy rates between ethnic groups can help guide clinicians to intervene earlier in the disease process with simple interventions such as compression therapy. Additional analyses on data CVI and lifestyle modifications in various racial groups is forthcoming.

Public sunscreen dispensers and consumer sunscreen trends during the COVID-19 pandemic

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Background: Coronavirus Disease 2019 (COVID-19) has impacted societal and public behaviors as prevention efforts restrict activities and socialization. Many citizens are finding themselves turning to outdoor activities to properly social distance and stay physically, emotionally, and mentally healthy. IMPACT Melanoma, a non-profit aimed to reduce skin cancer and conduct skin cancer prevention outreach, provides sunscreen dispensers and sunscreen to many park and recreational facilities during COVID-19. In 2020, 2019, and 2018, sunscreen dispensers were distributed along with sunscreen samples by consumers, will be decreased during the COVID-19 pandemic. Findings of the study demonstrate a 61% reduction of sunscreen dispensers in 2020, when compared to 2019. In parallel, there was a 50.8% decrease in purchases of cases of sunscreen. Sector sponsorship by public health departments and parks/recreational facilities (the largest 2019 sponsors) decreased by 49.7% and 27.9%, respectively. Trends in the general public’s purchase of sunscreen reflected similar pandemic-related declines. Consumers in the US purchased less sunscreen starting in March 2020 (-3% for the week ending 3/7/2020, followed by -17% for the week ending 3/14/2020), with the largest decreases in April and May (-31% to -45%). Some tapering in declining sunscreen sales was observed in early June despite the outdoor activity-oriented Memorial Day holiday weekend (+1% for the week ending 6/6/2020). As illustrated by these findings, the increase in outdoor activity among the general public combined with a reduction in sunscreen sales and distribution poses an increased exposure to UV light, which inevitably increases the risk of skin cancer. Additional studies are necessary to further explore the impact of COVID-19 on skin cancer prevention efforts.

Are we systematically excluding pediatric hidradenitis suppurativa patients from clinical trials?

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Hidradenitis Suppurativa (HS) is a chronic inflammatory skin disorder that often develops after puberty. Standard guidelines addressing therapeutic drugs as well as clinical trial studies for pediatric HS patients are limited. The large majority of medication trials have excluded patients <18 years, which hinders FDA-approval for pediatric patients. Frequently used inclusion exclusion criteria in adult trials may discriminate and create major barriers to inclusion for pediatric patients. Using a registry of prospectively collected data, a cohort of about 60 pediatric patients and 700 adult patients from a subspecialty HS clinic at the University of North Carolina Chapel Hill was identified. Description and regression analysis included the using STATA statistical software. Mean abscess/mucous (MA) counts in the pediatric cohort was 2.00 compared to 4.94 in adults, with the largest major difference of pediatric patients having Hurley stage I or II disease. Only 5/60 (8.3%) and 16/60 (26.67%) pediatric patients had AN count of ≥ 2.5 and ≥ 2, respectively. Furthermore, only 4/60 (6.67%) pediatric patients were both Hurley stage III/IV with an AN count ≥ 3 (a typical inclusion criteria). An analysis of inclusion criteria for 23 clinical trials for HS that have completed recruitment or are currently recruiting revealed only two trials included patients >16 years old, 6 requiring AN count ≥ 2.5, 1 requiring AN count ≥ 4, 6 requiring AN count ≥ 3, 1 requiring AN count ≥ 1, and a majority requiring subjects with Hurley Stage II or III. In the context of developing future clinical trials for pediatric HS patients, it is imperative to consider how their skin disease characteristics and progression differ from adults. The results of our recent study frequently used current trial inclusion criteria would severely limit the ability of adolescent patients to participate. Early intervention and cessation of progression is immensely important and clinical trials should aim to include younger patients with lower disease severity.