256 Female sex and white race are associated with Hidradenitis Suppurativa diagnostic delay
B Khandelwal1, M Paul, N Hills and H Naik University of California San Francisco, San Francisco, California, United States

Background: Although Hidradenitis Suppurativa (HS) is a chronic, inflammatory skin disease estimated to have a prevalence of 1%, the time from onset of symptoms to diagnosis—testi

diagnostic delay—is 7 years on average. Late diagnosis may delay disease course-altering treatments and comorbidity management. We aimed to determine if demographic characteristics such as race, gender, median income, and access to dermatologists are associated with HS diagnostic delay.

Methods: We conducted a single-center study of patients treated in an HS specialty clinic and included those who met HS diagnostic criteria, provided demographic characteristics and history. Data were summarized using medians and inter-quartile ranges (IQRs) for continuous variables, and frequencies and counts for categorical variables. We used Spearman correlation to examine the relationship between diagnostic delay and continuous variables, and Wilcoxon rank sum tests to compare delay time with categorical variables. Results: Of 221 eligible HS patients, the majority were female (73%) and White (72%). Black (23%) or Asian (5%) patients were not included. Median age at symptom onset was 19 years (14, 26). Median diagnostic delay was 4 years (1, 10). Younger age at symptom onset correlated with a longer diagnostic delay (p = 0.001). Female patients had longer diagnostic delay compared to males (6 years (1, 13) vs. 2 years (0, 6), p = 0.01). White patients had longer median diagnostic delay compared to patients of other racial and ethnic backgrounds combined (5 years (2, 14) vs. 3 years (0, 8), p = 0.004). We found no significant correlation between diagnostic delay and either annual household income or number of dermatologists in county of patient residence. Limitations include recall bias and single center data collection. Conclusion: This study identifies demographic characteristics that may be associated with diagnostic delay in HS, including female sex, white race and younger age. Additional cohorts are needed to fully understand the relationship between demographic characteristics and HS diagnostic time.

258 Seasonal variation, climate factors and squamous cell carcinoma
EM Lin, R Lim, N Baramwali, J Mosely, M Hoang, T Libby, A Qureshi and E Cho Dermatology, Brown University, Providence, Rhode Island, United States

The incidence of basal cell carcinoma (BCC) is known to peak in the summer months and the seasonal variation in the incidence of squamous cell carcinoma (SCC) is not well understood. We identified 1061 SCC patients (median age = 78) in Rhode Island, a state with four distinct seasons, from 2017-2019. Due to known effects of organ transplants and indoor tanning on SCC development, patients with past medical history of either were excluded from this study. SCC cases were also not included. Dates of 3386 diagnoses from 986 patients were collected to calculate the proportion of diagnoses per month. Relationships between average monthly variables of climate factors from 2017-2019 and SCC diagnoses were evaluated with Spearman's rank-order correlations. Climate factors evaluated included UV index, ambient temperature, humidity, cloudiness, air pressure, number of days with sun, hours of sunlight, and volume of precipitation. Our results show that SCC diagnoses were highest in February (r = 0.77), April (r = 0.68), May with the lowest levels through the summer months (June - August) and lowest in late fall (July-November). There were significant positive correlations (p < 0.05) between the hours of the sun month of diagnosis (r = 0.67) and month prior (r = 0.75) with SCC diagnosis. Other weather factors from these months, including temperature and UV index, were also significantly positively correlated with SCC diagnosis. When analyzed separately, diagnoses in high UV-exposed sites, including head and neck and distal extremities (n = 1031), showed a similar positive correlation with hours of sun in the same month (r = 0.71) and following month (r = 0.66). There was a slight delay in the influence of hours of sun on low UV exposed body sites, including the trunk and proximal extremities, (n = 307); while hours of sun of the month of diagnosis were not significantly correlated, levels of the variable at one (r = 0.77) and two months (r = 0.83) prior were positively correlated with diagnosis frequency. These results suggest that SCC diagnoses have seasonal variation and some climate variables, particularly hours of sun, may play a role in the seasonality patterns of SCC.

259 Incidence and prevalence of granuloma annulare in the United States: A cohort study
JS Barshem, O Rodriguez, M Rosenbach and D Margolis University of Pennsylvania, Philadelphia, Pennsylvania, United States

Given the lack epidemiologic data available for granuloma annulare, which is limited to small single-center studies, the burden of disease has not been well established. The purpose of this study was to estimate the population-based incidence and prevalence of granuloma annulare in the United States. This retrospective cohort study used the Optum de-identified Clininformatics Data Mart Database between January 1, 2017 and December 31, 2018. We have previously validated the use of ICD-10 codes to identify patients with granuloma annulare. The primary outcome was age-, sex-, and race/ethnicity-specific annualized incidence and prevalence of granuloma annulare. We also evaluated treatments used within 6 months of the first diagnosis. The entire population was considered at risk while continuously enrolled in the database. Incidence intervals for prevalence and incidence estimates were computed using the Wilson score method. We identified 11,608 cases of incident granuloma annulare and 17,862 cases of prevalent granuloma annulare over the study period. The overall annualized incidence of granuloma annulare was 0.04% or 37.9 (9.6-39.9) per 100,000 and the overall annualized prevalence of granuloma annulare was 0.06% or 58.3 (57.1-59.5) per 100,000. The incidence and prevalence of granuloma had a 3:1 female:male predominance. Granuloma annulare was more common in white individuals, as well as in those in their 5th and 6th decades of life. Within 6 months of their first diagnosis, 42.0% of patients filled a prescription for a topical steroid and 9.6% of patients received an intravenous injection. Oral tacrolimus prescriptions were filled by 7.1% of patients and hydroxychloroquine prescriptions by 2.3% of patients. Phototherapies and TNF-inhibitors were rarely used. In this study, we have estimated that granuloma annulare is an uncommon disease in the United States that is more common in women. These findings are an important step to understanding the basic epidemiology and disease burden of granuloma annulare.

260 Sun protection attitudes and behaviors among minority groups in a low socio-economic community
T Engel, A Nguyen, J Ferguson, R Dellavalle, E Mazerakis and R Sivamani 1 Psychiatry, University of California Riverside, Riverside, California, United States, 2 Radiology, The University of Chicago Medicine, Chicago, Illinois, United States, 3 Dermatology, University of Colorado Anschutz, Aurora, Colorado, United States, 4 Dermatology, University of California Davis, Sacramento, California, United States and 5 University of California Davis School of Medicine, Sacramento, California, United States

Background: Although skin cancer is less common among minority groups, they often present at later stages and have worse outcomes. Literature on this disparity is limited. Objective: To evaluate the attitudes influencing sun protective behaviors, skin cancer risk perception, and dermatologist access among an underserved, racially and ethnically diverse community. Methods: A cross-sectional survey of adult patients at five student-run, free primary care clinics in Sacramento, California. Results: 390 surveys were collected with a response rate of 86.4%. Overall, respondents did not use sunscreen, rarely sunburned, were unsure or perceived themselves at low risk for skin cancer and reported limited access to dermatologists. Compared when separated, diagnoses in high UV-exposed sites, including head and neck and distal extremities were collected from White patients, Latinos were likely to believe it was not worth getting sunburned to be tan (OR = 24.43, 95% CI: 9.37 to 63.3, P < 0.001). Whites were more likely than Asians (OR = 0.03, 95% CI: 0.00 to 0.30) and Latinos (OR = 0.43, 95% CI: 0.11 to 1.28, P = 0.001) to perceive having access to a dermatologist. Conclusions: Ethnic groups differ in their knowledge of sun protection and self-perceived skin cancer risk. The Latino community showed discrepancies between sun protection knowledge and practices, serving as a possible interventional target.

261 A national, retrospective cohort study to estimate survival and standardized mortality in tuberous sclerosis complex (TSC) patients: Late disease diagnosis is significantly associated with increased mortality
J Peng, H Tu and C Hong 1 Postgraduate Year, Chang Gung Memorial Hospital Kaohsiung Branch, Kaohsiung, Taiwan, 2 Public Health, Kaohsiung Medical University College of Medicine, Kaohsiung, Taiwan, 3 Dermatology, National Yang-Ming University, Taipei, Taiwan and 4 Dermatology, Kaohsiung Veterans General Hospital, Kaohsiung, Taiwan

Tuberous sclerosis complex (TSC) is a genetic disease with systemic manifestations. Population-based epidemiological studies on TSC mortality and survival, especially in Asians, remain scarce. This study aims to estimate the life expectancy and mortality statistics in Asians with TSC, and prognosis and TSC mortality based on demographic factors. The TSC Catastrophic Illness Certificate holders during 1997–2010 were identified from Taiwan’s National Health Insurance Research Database. The age at diagnosis and endpoint age, sex, and comorbidities were matched. 471 patients were identified, of which 14 died. Compared to literature, patients had similar demographics (including manifestations) and standardized mortality ratio (4.99), and lower mortality (0.21%/year). All-cause mortality risk was higher (HR = 6.54) with late-diagnosis (≥ 18). Average remaining lifetime was lower than general population, decreasing with age. This study highlights the importance of disease age in prognosis. Physician vigilance, early diagnosis, and careful monitoring are beneficial for TSC patients and should be targeted.