Utilization of dermatologic care by patients with advanced melanoma after initiation of immunotherapy and targeted therapy: A retrospective cohort analysis

E Edigin, P Eseaton, H Shaka.

Dermatology, Emory University School of Medicine, Atlanta, Georgia, United States and 2 Regional TeleHealth Service, VSN 7, Decatur, Georgia, United States.

Patients with advanced Stage III and IV melanoma are living longer with the introduction of immunotherapy and targeted therapy. Despite National Comprehensive Cancer Network (NCCN) guidelines recommending regular patient follow up with dermatology for skin checks and moral assessments, little is known about actual health service use in survivors. This study aims to evaluate health care utilization by advanced melanoma patients focusing on employment of dermatologic services in order to determine areas of improvement. A retrospective cohort analysis of Stage III and IV melanoma patients with age greater than 18 at the start of follow-up on immunotherapy / targeted therapy (first immunotherapy / targeted therapy usage) who were seen at Dermatology clinic at the Emory Clinic or the Winship Cancer Institute from January 1st, 2011 to September 14, 2020 was done. Data was collected from the Emory Healthcare Clinical Data Warehouse and then validated using manual chart review. Primary outcome is the number of visits to Dermatology clinic per year. Descriptive statistics were done in SPSS. Etiological factors were done from patients who met study criteria. The majority of patients exclusively received immunotherapy (58) while the minority were exclusively treated with targeted therapy (9) or both (10). The mean age at first dermatology follow up visit was 57 years old. The study population included 54.5% males and 45.5% females. The vast majority (90.9%) of patients were Caucasian or White. The mean number of dermatology visits per-person-year was 1.9 visits. This did not statistically significantly differ (p = 0.107) between patients treated exclusively with immunotherapy (1.8) and targeted therapy (2.4). Limitations include the fact that many patients obtained their dermatologic care at an outside clinic. Future research should examine optimal dermatologic follow up frequency for patients with advanced stage melanoma after immunotherapy and targeted therapy initiation.

Differences in musculoskeletal impact on health among patients with psoriasis based on disease type, disease severity and undiagnosed psoriatic arthritis (PsA)

G Gondo, S Bell, J Morda, and A Gottlieb.

1 National Psoriasis Foundation, Portland, Oregon, United States and 2 Johns Hopkins University, Baltimore, Maryland, United States, 3 Icahn School of Medicine at Mount Sinai, New York, New York, United States.

The National Psoriasis Foundation conducted a survey within a stratified sample of 1,405 individuals with psoriatic disease in the United States. Participants provided demographics and were asked about a provider diagnosis of psoriasis, PsA, or both. All participants completed the IDIOM Psoriasis Musculoskeletal (MSK) Symptoms Impact of Disease Questionnaire. MSK severity was assessed using the Participant Reported Extent of Psoriasis Involvement (PREPI). Participants were screened for undiagnosed PsA using the Psoriasis Epidemiological Screening Tool (PEST). Analysis of variance was used to assess differences in MSK-relevant symptoms in 3.5 years from 3.5 years prior to initiation of immunotherapy/ targeted therapy among participants, and undiagnosed PsA and severity of PsO among individuals with PsO only. Post-hoc tests were conducted to assess difference in MSK impact on health between individuals with Mild PsO (BSA < 3%), Moderate PsO (BSA 3 – 10%) and Severe PsO (BSA ≥ 10%). Among the 1,405 respondents, 662 (45.7%) had PsO only, 86 (6.1%) had PsA only and 677 (48.2%) had PsA among participants, and undiagnosed PsA and severity of PsO among individuals with PsO only. Post-hoc tests were conducted to assess difference in MSK impact on health between individuals with Mild PsO (BSA < 3%), Moderate PsO (BSA 3 – 10%) and Severe PsO (BSA ≥ 10%). Among the 1,405 respondents, 662 (45.7%) had PsO only, 86 (6.1%) had PsA only and 677 (48.2%) had PsA and PsO. Of those with PsO only, 326 (50.8%) reported having Mild PsO (BSA < 3%), 215 (33.5%) reported having Moderate PsO (BSA 3 – 10%) and 151 (15.7%) reported having Severe PsO (BSA ≥ 10%). 801 (31.3%) of the PsO only patients had a PEST score ≥ 3, indicating the presence of undiagnosed PsA. Among participants with PsO only, psoriasis severity was not associated with having a PEST score ≥ 3 (p = 0.381), based on results from a chi-square test for independence. Analysis of variance revealed that great MSK impact was associated with having PsA, having more severe PsO and having undiagnosed PsA.

Incidence, co-morbidity burden and resource utilization of psoriasis hospitalization has increased in the last decade: A 11-year longitudinal study of the national inpatient sample

E Edigin, P Eseaton, H Shaka.

1 Dermatology, Emory University School of Medicine, Atlanta, Georgia, United States and 2 Regional TeleHealth Service, VSN 7, Decatur, Georgia, United States.

This study aims to study longitudinal trends of HS hospitalizations over time in the United States (US) using national population data. Data were obtained from the National Inpatient Sample (NIS) database. We performed a retrospective 11-year longitudinal trend analysis of NS1 2008-2018 datasets. We searched for patients aged ≥ 18 years with a principal or secondary diagnosis of HS using ICD coding for the corresponding year. The trend in the 30-day readmission rate was our primary endpoint. The incidence of adult HS hospitalizations in the US increased from 3.5 per 100,000 persons in 2008 to 6.9 per 100,000 persons in 2018 (adjusted p-trend = 0.001). Overall, our study suggests that systemic immunomodulation may reduce cancer incidence and co-morbidity burden.

Biologic and nonbiologic systemic treatment of psoriasis are protective against solid organ, hematologic, and cutaneous cancer in a large multi-institution cohort

N Theodosis1, N Klebanov, P Upow-Dike, V Pahlavany, W Murphy, A Gusev, SG Kwatra and Y Semenov.

1 Dermatology, Massachusetts General Hospital, Boston, Massachusetts, United States, 2 Medicine, Dana Farber Cancer Institute, Boston, Massachusetts, United States and 3 Dermatology, Johns Hopkins University, Baltimore, Maryland, United States.

Treatment for psoriasis has been augmented in recent decades by the development of biologic targeting specific inflammatory regulators. Given their recent introduction compared to older systemic immunosuppressants, their impact on patients’ long-term cancer risk has yet to be fully elucidated. We compared the incidence of cutaneous as well as solid organ and hematologic cancer in a large, multi-institutional cohort using an electronic health record registry (Mayo Clinic EHR Registry). We identified 69,391 psoriatic patients treated between 1/1/1990 and 10/1/2020. Patients with prior cancer history or a competing autoimmune indication for immunosuppression were excluded. A proportional hazards model was used to examine the association of the following biologic treatments with the risk of cancer incidence (excluding noncutaneous malignancies) across race, sex, and select comorbidities relative to patients not receiving systemic treatment (n = 51,022). Treatment with only biologic therapy resulted in a significant reduction in non-cutaneous cancer (HR 0.41 [0.32-0.53], p < 0.001). A protective effect was also observed with exclusion of noncutaneous malignancies (HR 0.64 [0.47-0.87], p = 0.003) or mixed regimens (HR 0.60 [0.51-0.70], p < 0.001). A similar pattern was observed with cutaneous malignancies, with greater protection observed in patients receiving biologics (HR 0.56 [0.43-0.71], p < 0.001) vs. non- biologics (HR 0.76 [0.64-0.88], p < 0.001) or mixed regimens (HR 0.63 [0.52-0.76], p < 0.001). Overall, our study suggests that systemic immunomodulation may reduce cancer incidence in psoriatic patients, particularly in the biologics only group.