Disparities in Melanoma Demographics, Tumor Stage, and Metastases in Hispanic and Latino Patients: A Retrospective Study

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PRACTICE **POINTS**

- Hispanic and/or Latino patients often present with more advanced-stage melanomas and have decreased survival rates compared with non-Hispanic and/or non-Latino White patients.
- More education and awareness on the risk for melanoma as well as sun-protective behaviors in the Hispanic and/or Latino population is needed among both health care providers and patients to prevent diagnosis of melanoma in later stages and improve outcomes.

To the Editor:

Melanoma is an aggressive form of skin cancer with a high rate of metastasis and poor prognosis.[1] Historically, Hispanic and/or Latino patients have presented with more advanced-stage melanomas and have lower survival rates compared with non-Hispanic and/or non-Latino White patients.[2] In this study, we evaluated recent data from the last decade to investigate if disparities in melanoma tumor stage at diagnosis and risk for metastases continue to exist in the Hispanic and/or Latino population.

We conducted a retrospective review of melanoma patients at 2 major medical centers in Los Angeles, California—Keck Medicine of USC and Los Angeles County-USC Medical Center—from January 2010 to January 2020. The data collected from electronic medical records included age at melanoma diagnosis, sex, race and ethnicity, insurance type, Breslow depth of lesion, presence of ulceration, and presence of lymph node or distant metastases. Melanoma tumor stage was determined using the American Joint Committee on Cancer classification. Patients who self-reported their ethnicity as not Hispanic and/or Latino were designated to this group regardless of their reported race. Those patients who reported their ethnicity as not Hispanic and/or Latino and reported their race as White were designated as non-Hispanic and/or non-Latino White. This study was approved by the institutional review board of the University of Southern California (Los Angeles). Data analysis was performed using the Pearson χ^2 test, Fisher exact test, and Wilcoxon rank sum test. Statistical significance was determined at $P<.05$.

The final cohort of patients included 79 Hispanic and/or Latino patients and 402 non-Hispanic and/or non-Latino White patients. The median age for the Hispanic and/or Latino group was 54 years and 64 years for the non-Hispanic and/or non-Latino White group ($P<.001$). There was a greater percentage of females in the Hispanic and/or Latino group compared with the non-Hispanic and/or non-Latino White group (53.2% vs 34.6%)($P=.002$). Hispanic and/or Latino patients presented with more advanced tumor stage melanomas (T3: 15.2%; T4: 21.5%) compared with non-Hispanic and/or non-Latino White patients (T3: 8.0%; T4: 10.7%) ($P=.004$). Furthermore, Hispanic and/or Latino patients had higher rates of lymph node metastases compared with

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TABLE 1. Differences in Demographic Variables, Melanoma Tumor Stage at Diagnosis, and Metastases in Hispanic and/or Latino vs Non-Hispanic and/or Non-Latino White Patients[a]

Patient variable	Hispanic and/or Latino (n=79)	Non-Hispanic and/or non-Latino White (n=402)
Median age (IQR),[b] y	54 (45-67)	64 (54-75)
Sex, n (%)[c]		
Male	37 (46.8)	263 (65.4)
Female	42 (53.2)	139 (34.6)
Melanoma tumor stage, n (%)[d]		
In situ	27 (34.2)	139 (34.6)
T1	11 (13.9)	139 (34.6)
T2	12 (15.2)	49 (12.2)
T3	12 (15.2)	32 (8.0)
T4	17 (21.5)	43 (10.7)
Lymph node metastasis[b]	16 (20.3)	31 (7.7)
Distant metastasis[e]	10 (12.7)	21 (5.2)

[a]Pearson χ^2 test, Fisher exact test, and Wilcoxon rank sum test.
[b]$P<.001$.
[c]$P=.002$.
[d]$P=.004$.
[e]$P=.014$.

TABLE 2. Differences in Insurance Types in Hispanic and/or Latino vs Non-Hispanic and/or Non-Latino White Patients With Melanoma[a]

Type of insurance	Hispanic and/or Latino, n (%) (n=79)	Non-Hispanic and/or non-Latino White, n (%)(n=402)
Medicaid	31 (39.2)	12 (3.0)
Medicare	15 (19.0)	138 (34.3)
HMO	3 (3.8)	42 (10.4)
PPO	9 (11.4)	150 (37.3)
Self-pay/other	21 (26.6)	60 (14.9)

Abbreviations: HMO, health maintenance organization; PPO, preferred provider organization.
[a]Wilcoxon rank sum test ($P<.001$ for all).

non-Hispanic and/or non-Latino White patients (20.3% vs 7.7% [$P<.001$]) and higher rates of distant metastases (12.7% vs 5.2% [$P=.014$])(Table 1). The majority of Hispanic and/or Latino patients had Medicaid (39.2%), while most non-Hispanic and/or non-Latino White patients had a preferred provider organization insurance plan (37.3%) or Medicare (34.3%)($P<.001$)(Table 2).

This retrospective study analyzing nearly 10 years of recent melanoma data found that disparities in melanoma diagnosis and treatment continue to exist among Hispanic and/or Latino patients. Compared to non-Hispanic and/or non-Latino White patients, Hispanic and/or Latino patients were diagnosed with melanoma at a younger age and the proportion of females with melanoma was higher. Cormier et al[2] also reported that Hispanic patients were younger at melanoma diagnosis, and females represented a larger majority of patients in the Hispanic population compared with the White population. Hispanic and/or Latino patients in our study had more advanced melanoma tumor stage at diagnosis and a higher risk of lymph node and distant metastases, similar to findings reported by Koblinksi et al.[3]

Our retrospective cohort study demonstrated that the demographics of Hispanic and/or Latino patients with melanoma differ from non-Hispanic and/or non-Latino White patients, specifically with a greater proportion of younger and female patients in the Hispanic and/or Latino population. We also found that Hispanic and/or Latino patients continue to experience worse melanoma outcomes compared with non-Hispanic and/or non-Latino White patients. Further studies are needed to investigate the etiologies behind these health care disparities and potential interventions to address them. In addition, there needs to be increased awareness of the risk for melanoma in Hispanic and/or Latino patients among both health care providers and patients.

Limitations of this study included a smaller sample size of patients from one geographic region. The retrospective design of this study also increased the risk for selection bias, as some of the patients may have had incomplete records or were lost to follow-up. Therefore, the study cohort may not be representative of the general population. Additionally, patients' skin types could not be determined using standardized tools such as the Fitzpatrick scale, thus we could not assess how patient skin type may have affected melanoma outcomes.

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