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were identified, and the most populous 100 homelands of 4,742,579 (92.7%) individuals were analyzed. Locations of dermatologists and DPAs were obtained from the American Academy of Dermatology and Society of Dermatology Physician Assistants and were correlated with homeland borders defined by the census. Providers located within homeland borders were counted.

There were 56 dermatologists and 3 DPAs in the most populous 100 homelands, yielding a mean dermatology provider density of 1.24 per 100,000 individuals. Only 23 homelands had at least 1 dermatology provider, and only 7 homelands exceeded the minimum recommended dermatologist density of 4 per 100,000 individuals. [Table I](#) and [Figure 1](#) summarize data on the total numbers and densities of dermatologists and DPAs in each homeland.

Access to dermatologic care in AIAN communities mirrors that of the least dermatologist-dense areas in the United States and is likely influenced by their location in rural areas.³ Only 5 homelands had more than 2 practitioners, and these 5 all contained an urban center. This disparity in provider density between rural and metropolitan areas has been steadily increasing over the years.⁴ Given the shortage of dermatologists practicing on AIAN homelands, transportation (to potentially distant dermatology providers) remains a barrier to accessing care. In one study evaluating dermatologic care in rural AIAN communities, the median driving distance between a dermatology clinic and a tribal hospital was 68 miles.⁵

This study has several limitations, including the lack of available data for nondermatology physicians, nonphysician providers (eg, nurse practitioners), and practitioners who are not members of American Academy of Dermatology or Society of Dermatology Physician Assistants. Our study is also unable to account for dermatology providers who practice directly outside of AIAN homeland borders. Our report emphasizes the undersupply of dermatology providers in AIAN homelands. Moreover, DPAs have not adequately supplemented dermatologic care in these regions. Improving practice incentives, creating AIAN-focused residency training tracks, promoting rural health programs on tribal lands, expanding telehealth, and increasing recruitment of medical students and dermatology residents from AIAN homelands may improve health care accessibility in these areas.

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Efforts have been made by authors to follow the current most commonly used and well-accepted terms, though preferred terminology can and will change over time. Terms used in this article, such as "American Indian/Alaskan Native (AIAN)" and "tribal areas," are based on those used in the 2020 United States Census Bureau.

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Conflicts of interest

None disclosed.

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A retrospective analysis of the impact of the COVID-19 pandemic on staging at presentation of patients with invasive melanoma



To the Editor: We performed a single-institution retrospective analysis to evaluate the impact of the COVID-19 pandemic on staging at the presentation of patients with invasive melanoma at a large tertiary care

center. A total of 246 patients were evaluated between March 11, 2020 (the declaration of the pandemic), and January 12, 2021, and 246 patients treated between March 1, 2019, and March 10, 2020, were then matched to form the prepandemic cohort. Categorical variables were compared using the 2-sided Fisher's exact test. Continuous variables were compared using the 2-sided Wilcoxon rank sum test. The median progression-free survival and overall survival were estimated using the Kaplan-Meier method. *P* values were not adjusted for multiple comparisons because this was an exploratory study.

Patient characteristics are reported in Table I. In the postpandemic cohort, 200 (81.3%) patients presented with early-stage disease and 46 (18.7%) patients presented with metastatic disease, compared with 209 (85%) and 37 (15%) patients in the prepandemic cohort, respectively. In the postpandemic cohort, there was a significant decrease in the number of patients presenting with AJCC stage I disease (28.5% vs 40.7%, *P* = .006) and a significant increase in the number of patients presenting with stage III disease (30.5% vs 21.1%, *P* = .023). There was also an increase in the number of patients presenting with metastatic recurrence in the postpandemic cohort compared with the prepandemic cohort (7.7% vs 3.3%, *P* = .046). The median time to recurrence from the time of initial melanoma diagnosis was more than doubled in the postpandemic cohort (60.0 vs 25.5 months), although this did not reach statistical significance (*P* = .240). There was also a significant increase in the number of patients with brain metastases in the postpandemic cohort (6.5% vs 1.6%, *P* = .010) compared with the prepandemic cohort. An additional breakdown of the staging is presented in Table II.

Overall, there was a significant increase in the median Breslow depth (2.0 vs 1.4 mm, *P* = .047) and mitotic rate of >1/mm² (78.1% vs 66%, *P* = .008) in the postpandemic cohort. There were trends toward increased ulceration, lymphovascular invasion, perineural invasion, and microsatellite presence.

A total of 179 (73.7%) patients in the postpandemic cohort and 175 (71.1%) patients in the prepandemic cohort underwent sentinel lymph node (SLN) biopsy at the time of wide local excision. During the pandemic, most patients who were eligible for SLN biopsy by pathologic criteria underwent SLN biopsy, with SLN biopsy foregone in 4 patients. Sixty-six (38.2%) SLN biopsies were positive for melanoma involvement in the postpandemic cohort, compared with 51 (29.7%) biopsies in the prepandemic cohort.

For patients who received adjuvant therapy (194 in the postpandemic cohort and 211 in the prepandemic cohort), those in the postpandemic cohort were more likely to receive oral targeted therapy (73

Table I. Patient characteristics

Patient characteristics	Prepandemic patients (n = 246)	Postpandemic patients (n = 246)	<i>P</i> value
Median age at diagnosis, y	65 (IQR: 52-74, n = 246)	65 (IQR: 54-73, n = 246)	.8467
Sex			.5872
Male	130 (52.8%)	137 (55.7%)	
Female	116 (47.2%)	109 (44.3%)	
Race			.0000
White	244 (99.2%)	245 (99.6%)	
Black	1 (0.4%)	1 (0.4%)	
Other	1 (0.4%)	0 (0.0%)	
ECOG performance status at diagnosis			.0606
0	215 (87.4%)	198 (80.8%)	
1	25 (10.2%)	41 (16.7%)	
2	6 (2.4%)	4 (1.6%)	
3	0 (0.0%)	2 (0.8%)	
Median time lesion present, mos	1 (IQR: 0-5, n = 241)	2 (IQR: 0-6, n = 225)	.3302
Median time from initial diagnosis, mos	25.5 (IQR: 13.5-78, n = 8)	60 (IQR: 14-114, n = 25)	.2395
Melanoma subtype			
Superficial spreading	98 (49.7%)	90 (43.7%)	
Nodular	54 (27.4%)	67 (32.5%)	
Lentigo maligna	19 (9.6%)	9 (4.4%)	
Acral	0	2 (1.0%)	
Mucosal	0	1 (0.5%)	
Other	26 (13.2%)	37 (18.0%)	
Unknown	49 (19.9%)	40 (16.2%)	
Presentation			.0929
Limited stage de novo	209 (85.0%)	200 (81.3%)	.3355
Metastatic de novo	29 (11.8%)	27 (11.0%)	.8872
Metastatic recurrence	8 (3.3%)	19 (7.7%)	.0459
Definitive surgical management	210 (86.1%)	203 (83.2%)	.4516
Adjuvant therapy			.0335
Immunotherapy	153 (72.5%)	121 (62.4%)	
Targeted therapy	58 (27.5%)	73 (37.6%)	
Systemic therapy			>.99
Immunotherapy	34 (89.5%)	39 (88.6%)	
Targeted therapy	4 (10.5%)	5 (11.4%)	

Bolded *P*-values correspond to statistically significant differences between the pre- and post-pandemic cohorts.

ECOG, Eastern Cooperative Oncology Group; IQR, interquartile range.

[37.6%] patients vs 58 [27.5%] patients) than immunotherapy (121 [62.4%] patients, vs 153 [72.5%] patients, *P* = .034). There was no significant difference between the 2 groups in the type of systemic

Table II. Stage at diagnosis

Stage	Prepandemic patients (n = 246)	Postpandemic patients (n = 246)	P value
I	100 (40.7%)	70 (28.5%)	.0059
IA	45 (18.3%)	32 (13.0%)	.1361
IB	55 (22.4%)	38 (15.5%)	.0650
II	57 (23.2%)	55 (22.4%)	.9144
IIA	23 (9.4%)	21 (8.5%)	.8746
IIB	21 (8.5%)	18 (7.3%)	.7390
IIC	13 (5.3%)	16 (6.5%)	.7025
III	52 (21.1%)	75 (30.5%)	.0232
IIIA	13 (5.3%)	17 (6.9%)	.5726
IIIB	18 (7.3%)	25 (10.2%)	.3383
IIIC	20 (8.1%)	30 (12.2%)	.1789
IIID	1 (0.4%)	3 (1.2%)	.6235
IV	37 (15.0%)	46 (18.7%)	.3355
IV - M1a	6 (2.4%)	6 (2.4%)	>.99
IV - M1b	7 (2.8%)	5 (2.0%)	.7716
IV - M1c	21 (8.5%)	19 (7.7%)	.8692
IV - M1d	4 (1.6%)	16 (6.5%)	.0102

Bolded *P*-values correspond to statistically significant differences between the pre- and post-pandemic cohorts.

therapy administered in the metastatic setting. The median progression-free survival and overall survival were not reached in either group.

These findings suggest that patients had delays in coming to medical attention, likely resulting in more advanced disease. These data underscore the importance of early detection and oncology referral for patients with melanoma, even during the pandemic.

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Conflicts of interest

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Spatial and temporal homogeneity of T-cell receptor gamma chain rearrangements in mycosis fungoides: A next-generation sequencing analysis



To the Editor: Highly sensitive analysis by next-generation sequencing (NGS) unveils an unexpected spatial and/or temporal clonal heterogeneity in solid and hematologic malignancies.¹ NGS applied to