Racial and Ethnic Differences in Sociodemographic and Treatment Characteristics Among Patients With Atopic Dermatitis in the United States: Real-world Data From CorEvitas Registry

Jonathan I. Silverberg[1], Vivian Y. Shi[2]; Andrew Alexis[3]; Evangeline Pierce[4]; Angel Cronin[5]; Robert R. McLean[5]; Carla Roberts-Toler[5]; Maria Jose Rueda[4]; Amber R. Atwater[4]; Eric Simpson[6]

[1]George Washington University School of Medicine and Health Sciences, DC, USA, [2]University of Arkansas for Medical Sciences, AR, USA, [3]Weill Cornell Medicine, NY, USA, [4]Eli Lilly and Company, IN, USA, [5]CorEvitas LLC, MA, USA, [6]Oregon Health & Science University, OR, USA

BACKGROUND AND OBJECTIVE

- Atopic Dermatitis (AD) is a chronic, inflammatory skin disorder with heterogenous symptom presentation, distribution, and disease course[1]
- Despite high prevalence of AD among patients with skin of color in the United States, little is known about the disease and treatment characteristics of this population
- Further research is needed to better understand these aspects of AD patients with skin of color
- Herein, we compared differences in AD disease and treatment characteristics (including systemic treatments) among self-reported racial/ethnic groups in real-world AD patients who are candidates for or currently on systemic therapy

KEY RESULTS

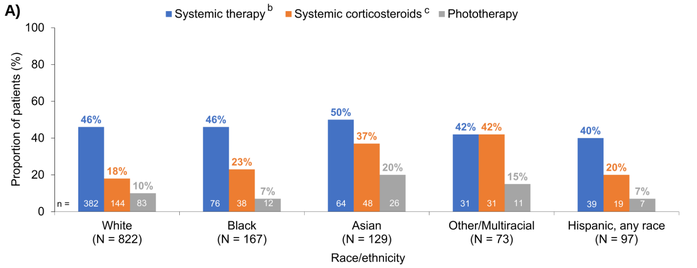
- A moderate difference was observed in work status by race/ethnicity (ES=0.30), geographic region (ES=0.45), and a small difference in onset of AD symptoms; small differences were observed in treatment characteristics across race/ethnicity groups
- The proportion of patients with moderate/severe vIGA-AD ranged between 63%–70% and mean EASI was 10.5–12.1 across all race/ethnicity groups

Table 1. Patient demographics and clinical characteristics at enrollment, by race/ethnicity group, among patients enrolled in the CorEvitas AD Registry

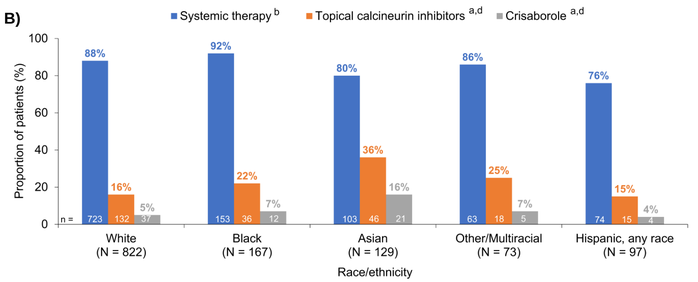
Characteristics	Non-Hispanic				Hispanic, any race (N = 97)	Effect Size
	White (N = 822)	Black (N = 167)	Asian (N = 129)	Other/ Multiracial (N = 73)		
Sociodemographic characteristics						
Age at enrollment (years), mean (SD)	52.9 (17.7)[a]	45.3 (15.9)	38.6 (16.4)	44.1 (18.8)	41.0 (16.6)	0.31*
Female, n (%)	485 (59)	112 (67)	77 (60)	45 (62)	61 (63)	0.06
Health insurance type, n (%)[b]						
Private/commercial	572 (70)	99 (59)	79 (61)	38 (52)	68 (70)	0.11
Medicare	204 (25)	18 (11)	12 (9)	8 (11)	6 (6)	0.19
Medicaid	83 (10)	57 (34)	20 (16)	21 (29)	17 (18)	0.24
Current primary work status, n (%)						
Full time	367 (45)	86 (51)	58 (45)	31 (42)	46 (47)	
Disabled	79 (10)	26 (16)	3 (2)	7 (10)	5 (5)	0.26
Retired	203 (25)	17 (10)	12 (9)	8 (11)	8 (8)	
Other[c]	173 (21)	38 (23)	56 (43)	27 (37)	38 (39)	
Geographic region, n (%)						
Midwest	360 (44)	53 (32)	16 (12)	15 (21)	7 (7)	
South	236 (29)	86 (51)	24 (19)	21 (29)	26 (27)	0.45*
West	98 (12)	10 (6)	56 (43)	24 (33)	42 (43)	
Northeast	112 (14)	17 (10)	22 (17)	5 (7)	20 (21)	
Canada	16 (2)	< 5	11 (9)	8 (11)	< 5	
Disease characteristics						
AD symptom onset, n (%)						
Adult (≥18 years)	579 (70)	95 (57)[d]	57 (44)	38 (52)	54 (56)	
Childhood (5 to <18 years)	138 (17)	40 (24)[d]	38 (29)	13 (18)	29 (30)	0.21
Early onset (0 to <5 years)	105 (13)	31 (19)[d]	34 (26)	22 (30)	14 (14)	
Duration of AD disease (years), mean (SD)	15.8 (18.0)[e]	18.7 (16.4)[f]	18.4 (14.4)	18.5 (14.4)	14.7 (13.5)	0.08
Disease severity measures[g]						
vIGA-AD ≥3 (moderate/severe), n(%)	521 (63)	109 (66)[f]	87 (67)	51 (70)	68 (70)	--
EASI total ≥16, n (%)	239 (29)[e]	46 (28)[f]	37 (29)	20 (28)[h]	19 (20)	--

*Moderate effect size, [a]N = 821; [b]Not mutually exclusive; [c]Includes part time, student, stay-at-home parent/spouse, and unemployed;
[d]N = 166; [e]N = 820; [f]N = 165; [g]Effect sizes were not calculated for disease severity measures in this descriptive, unadjusted analysis; [h]N = 72

Figure 1. Medications by race/ethnicity (A) History of prior treatment[a]; (B) Current treatment[a]



The effect sizes for systemic therapy, systemic corticosteroids, and phototherapy are 0.04, 0.19, and 0.12, respectively.



The effect sizes for systemic therapy, topical calcineurin inhibitors, and crisaborole are 0.12, 0.15, and 0.15, respectively.

[a]Not mutually exclusive; [b]Systemic therapy included biologics (dupilumab, ixekizumab, omalimumab, risankizumab, secukinumab, ustekinumab), non-biologics (azathioprine, cyclosporine, methotrexate, mycophenolate mofetil, mycophenolic acid, tacrolimus), and small molecules (apremilast, baricitinib, montelukast sodium, tofacitinib, upadacitinib); [c]Systemic corticosteroids included methylprednisolone (injection or oral), prednisone oral, and triamcinolone injection (intralesional or intramuscular); [d]Group denominator may be smaller than group total shown, but nonresponses were <1%

STRENGTHS AND LIMITATIONS

- The CorEvitas AD Registry collects data from patients and providers on treatment and physician- and patient-reported disease outcomes, is a large sample of real-world patients who are candidates for systemic therapy in the US and contains clinical data that are not available in claims databases.
- Patients self-identified their race and ethnicity, thereby reducing potential misclassification
- Our study included a sample of adults with AD that are not necessarily representative of all adults with AD in the US

CONCLUSIONS

- Our results suggest the presence of subtle differences in age of AD onset, work and health insurance status, and treatment characteristics across racial and ethnic groups among real-world AD patients who are candidates for systemic therapy
- These findings warrant further study to determine the interplay among race and ethnicity, social determinants of health and AD disease and treatment characteristics
- This may be of importance for dermatologists for delivery of targeted intervention

METHODS

- The CorEvitas AD Registry is a prospective and non-interventional registry (covering United States and Canada) for patients with AD
- The registry enrolls patients aged ≥18 years who are diagnosed with AD by a dermatologist or a qualified dermatology practitioner, and fulfill one of the following criteria:
  - initiated a new systemic therapy[a] within the 12 months prior to the enrollment visit
  - were prescribed a new systemic therapy[a] at the enrollment visit
  - were not being treated with systemic therapy[a] at the time of enrollment but had an Eczema Area Severity Index (EASI) score ≥12 and a vIGA-AD™ ≥3

[a]Systemic therapy included biologics (dupilumab, ixekizumab, omalimumab, risankizumab, secukinumab, ustekinumab), non-biologics (azathioprine, cyclosporine, methotrexate, mycophenolate mofetil, mycophenolic acid, tacrolimus), and small molecules (apremilast, baricitinib, montelukast sodium, tofacitinib, upadacitinib)

- For this analysis, patients enrolled between July 2020 through July 2021 were categorized into 5 mutually exclusive groups based on self-reported race/ethnicity:
  1. White-non-Hispanic (White)
  2. Black-non-Hispanic (Black)
  3. Asian-non-Hispanic (Asian)
  4. other/multiracial-non-Hispanic (Others)
  5. Hispanic-any race (Hispanic)
- Disease and treatment characteristics were assessed at enrollment and summarized descriptively using frequencies with percentages for categorical variables and means with standard deviations for continuous variables
- Differences in means or proportions of characteristics among race/ethnicity groupings were descriptively summarized using effect sizes (ES): phi for categorical variables, Cohen's f for continuous variables:
  - Phi values greater than 0.10, 0.30, and 0.50 indicate small, moderate, and large differences, respectively
  - Cohen's f values greater than 0.10, 0.25, and 0.40, indicate small, moderate, and large differences, respectively

REFERENCES

1. Vakharia PP, et al. *Ann Allergy Asthma Immunol.* 2017;119(6): 548-552.

DISCLOSURES

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