

# Disparities in the Utilization of Dermatologists for Primary Cicatricial Alopecias

Justin D. Arnold MMSc,<sup>a</sup> SunJung Yoon MS,<sup>b</sup> Adam J. Friedman MD<sup>a</sup>

<sup>a</sup>George Washington University School of Medicine and Health Sciences, Washington, DC

<sup>b</sup>Indiana Business Research Center, Indiana University, Bloomington, IN

## INTRODUCTION

Early intervention in cicatricial alopecias is critical to prevent permanent damage to the hair follicles. Previous literature, however, has suggested that individuals who are black are less likely to visit dermatologists than individuals who are white.<sup>1</sup>

## METHODS

In order to assess if there are disparities in the utilization of dermatologists for scarring alopecias, we performed a retrospective chart review of treatment naive individuals seeking care for the first time from a dermatologist, for the most common forms of primary cicatricial alopecias. We then quantified the degree of hair loss at presentation from clinical photographs using the Severity of Alopecia Tool (SALT) II score.<sup>1</sup> Statistical analyses were performed using the chi-squared and *t*-tests (Stata, version 14.2, StataCorp, College Station, TX). The George Washington University institutional review board approved this study.

## RESULTS

In total, we identified 86 treatment naive individuals (98% women) with clinically diagnosed primary cicatricial alopecias. In this cohort, subjects who were identified as black by the investigators presented to dermatology on average 45.6 months after the self-reported onset of hair loss compared to 16.8 months after the self-reported onset of hair loss in subjects who were identified as white ( $P=0.002$ ). Additionally, black subjects presented to dermatology with more severe alopecia—having lost an average of 37.7% of their scalp hair compared to 20.3% lost at presentation in white patients ( $P<.001$ ). In regard to retention in care, black subjects also followed up for shorter periods of time (mean, 8.2 months) compared to white subjects (mean, 15.7 months;  $P=0.016$ ). These results are depicted in Table 1.

In our cohort, subjects who were black were more likely to have Medicaid insurance than subjects who were white. However, when Medicaid enrollees of all races were compared to individuals with private insurance of all races, no significant differences in the duration ( $P=0.24$ ) or severity ( $P=0.17$ ) of hair loss at presentation were observed, suggesting that the disparities observed here are not related insurance status.

## DISCUSSION

In this cohort, black subjects with primary scarring alopecias presented to dermatologists later after the self-reported onset of

TABLE 1.

Disparities in Primary Cicatricial Alopecias			
	Black	White	<i>P</i> value
Characteristic	Value, %(n)	Value, %(n)	--
Sex	--	--	0.034
Female	59(100)	25 (93)	--
Male	--	2 (7)	--
Age, years	--	--	0.834
Average (range)	51.7 (22-79)	52.4 (24-75)	--
Primary Cicatricial Alopecia	--	--	<.001
CCCA	54 (92)	--	--
LPP	5 (8)	18 (67)	--
FFA	--	8 (30)	--
GLS	--	1 (4)	--
Insurance	--	--	0.042
Private	36 (61)	23 (85)	--
Medicaid	15 (25)	1 (4)	--
Medicare	8 (14)	3 (11)	--
Burning or pruritus at presentation	36 (61)	13 (52)	0.263
Duration of alopecia at presentation, months	--	--	0.002
Average (range)	45.6 (1-240)	16.8 (1-60)	
Median	24	12	
Initial Severity of Alopecia Tool II Score, %	--	--	<.001
Average (range)	37.7 (4-94)	20.3 (6-38)	--
Median	34	18	
Final Severity of Alopecia Tool II Score, %	--	--	0.131
Average (range)	32.3 (5-72)	16.8 (12-21)	--
Median	25	17	
Length of follow up, months	--	--	0.016
Average (range)	8.2 (0-57)	15.7 (0-59)	--
Median	4	12	

Abbreviations: CCCA=central centrifugal cicatricial alopecia; LPP=lichen planopilaris; FFA=frontal fibrosing alopecia; GLS=Graham Little syndrome

hair loss, with more severe hair loss, and followed up for shorter periods of time, compared to white subjects. We could not, however, assess the impact of race-discordance on these results given the previous lack of diversity within our department, and dermatology in general—the second least diverse specialty

in medicine.<sup>2</sup> Previous literature has demonstrated that 71% of black patients prefer to see a black (or race-concordant) dermatologist, and that black men are more likely to consent to influenza vaccinations and cardiovascular disease screenings from physicians who are black than from physicians who are white.<sup>3,4</sup> Our findings further emphasize the need for increasing racial diversity within the dermatology workforce and even more importantly, ensuring all trainees receive adequate training, both of which will potentially increase utilization of dermatologists for scarring alopecias. Additionally, educational campaigns highlighting the importance of early dermatologic interventions in cicatricial alopecias—targeting the affected patient populations and referring physicians—may prompt patients to obtain treatment earlier in the disease course.<sup>5</sup> It is also unclear if the perception of scalp and hair symptoms differs between racial or ethnic groups, or if the lack of familiarity with ethnic hair amongst dermatologists, are contributing to the study results.

This study is limited by several factors. Firstly, the lack of histopathologic confirmation of the cicatricial alopecia diagnoses, as we uncommonly perform scalp biopsies for these conditions because of the largely overlapping treatment modalities. Supporting the scarring nature of the alopecias, there were only minimal improvements in SALT II scores at study completion. A more important limitation is that this study was a retrospective chart review and unfortunately investigators were not able to ask patients to categorize themselves or identify their race. The designations used were the perceptions of the investigators and therefore are inherently biased. Race is truly subjective and it is no longer acceptable to place our implicit biases on others by categorizing them as how we perceive them. Future studies are necessary to assess if there are racial differences in the perception of hair loss and to better identify barriers to obtaining dermatology specialist care for cicatricial alopecias.

## REFERENCES

1. Fleischer AB, Feldman SR, Bradham DD. Office-based physician services provided by dermatologists in the United States in 1990. *J Invest Dermatol.* 1994;102(1):93-7.
2. Pandya AG, Alexis AF, Berger TG, Wintroub BU. Increasing racial and ethnic diversity in dermatology: A call to action. *J Am Acad Dermatol.* 2016;74(3):584-7. DOI: 10.1016/j.jaad.2015.10.044.
3. Gorbatenko-roth K, Prose N, Kundu RV, Patterson S. Assessment of black patients' perception of their dermatology care [published online ahead of print August 21, 2019]. *JAMA Dermatol.* 2019. DOI:10.1001/jamadermatol.2019.2063
4. Alsan M, Garrick O, Graziani GC. Does diversity matter for health? Experimental evidence from Oakland. *The National Bureau of Economic Research.* 2018; June. <https://www.nber.org/papers/w24787>. Accessed December 19, 2018.
5. Kim BK, Lee S, Jun M, Chung HC, Oh SS, Lee WS. Perception of hair loss and education increases the treatment willingness in patients with androgenetic alopecia: A population-based study. *Ann Dermatol.* 2018;30(4):402-408. DOI: 10.5021/ad.2018.30.4.402.

## AUTHOR CORRESPONDENCE

**Adam J. Friedman MD**

E-mail:..... ajfriedman@mfa.gwu.edu