

Hidradenitis Suppurativa and Food Insecurity: A Stratified Analysis

Shivani Jain¹, Aditya Sood², Sokol Tushe², Ryan Dieudonne², Lauren Orenstein²

Louisiana State University Health Sciences Center-New Orleans, School of Medicine, New Orleans, LA, USA¹, Emory University, School of Medicine, Dept. of Dermatology, Atlanta, GA, USA²



Background

Rationale:

- Hidradenitis suppurativa (HS) is a chronic inflammatory skin condition that affects 1-4% of the population¹
- Prior research has shown association between obesity and HS^{2,3}
- Emerging evidence indicates an association between food insecurity and obesity^{2,3}
- While previous research has raised importance of exploring social determinants of health in HS, little exploration has been done to assess which factors are important to consider^{2,4}

Objective:

 This study's aim was to investigate the association between HS and food insecurity, while adjusting for potential confounders of sex, race, and age

Figure 1. Nodules and abscesses characteristic of morphology.⁵





Methods

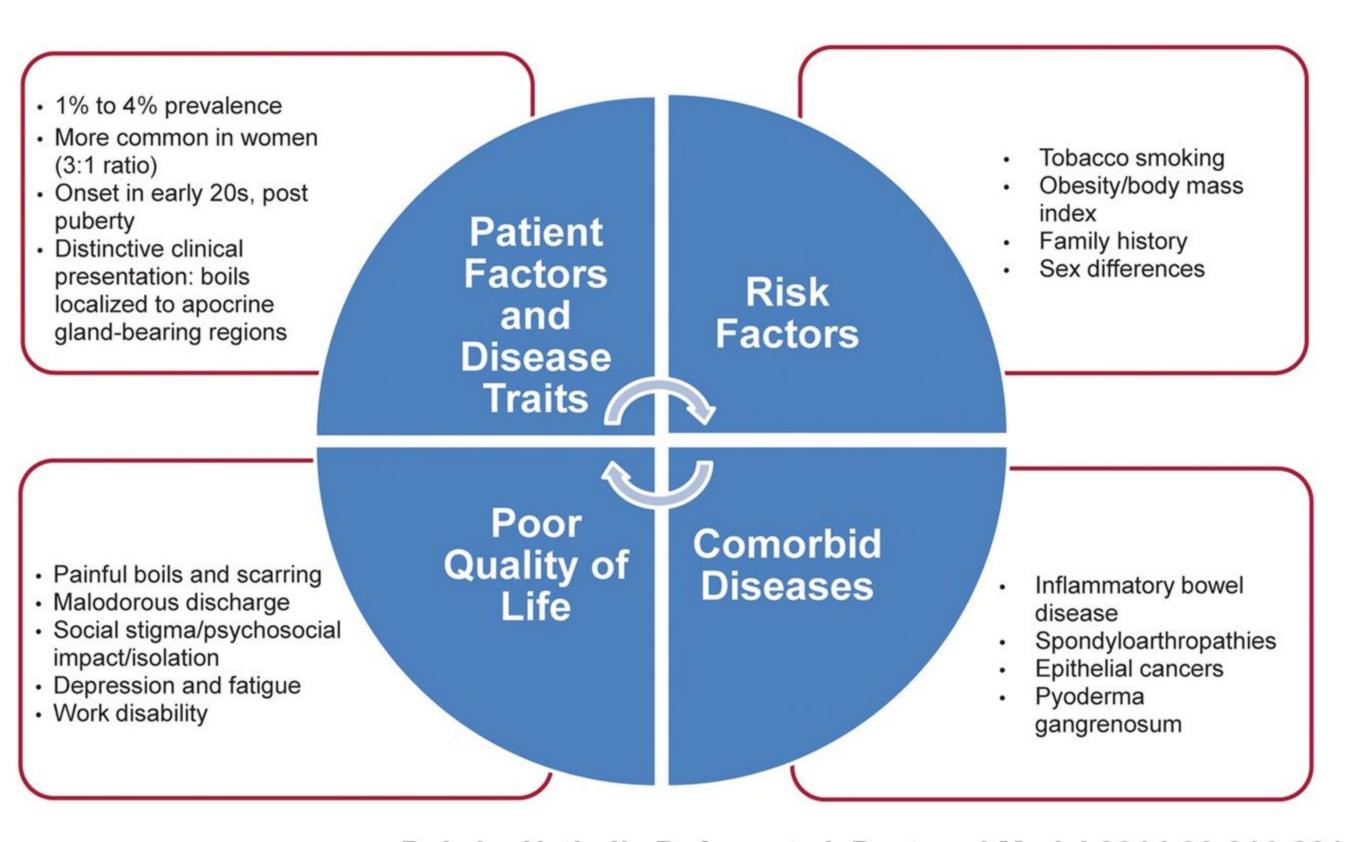
 Individuals ≥18 years old with self-reported diagnosis of HS as well as those without HS were identified through the All of Us database

Methods (cont.)

- Final sample included 127 individuals with HS and 52842 non-HS controls in the same database for whom demographic information was available on sex, race, and age and who completed the Children's HealthWatch Hunger Vital Sign™ screening survey (validated for use among adults in 2017)
- Performed logistic regression modeling to account for effect modification by sex, race, and age on food security status in HS individuals
- Stratified data by food insecurity status and ran univariate and multivariate logistic regression models to analyze effects of sex, race, and age between those with and without HS

Overview of HS

Figure 2. Overview of HS including epidemiology, clinical features, common co-morbidities, and complications



Results: Food Security in HS

Race, and Age					
Characteristic	OR ¹	95% CI ¹	p-value		
Sex					
Male	_	_			
Female	0.38	0.13,1.17	0.088		
Race					
White	_	_			
Black or African American	1.42	0.47,4.00	0.52		
Other	3.33	1.08,10.3	0.034		
Unknown	5.72	0.61,55.0	0.11		
Age	0.98	0.95,1.01	0.13		

Results: HS vs Controls

Table 2. Logistic Regression HS vs Controls				
Characteristic	OR1	95% CI ¹	p-value	
Groups				
Non-HS	_	_		
Hidradenitis suppurativa (HS)	2.09	1.37,3.11	<0.001	
Sex				
Male	_	_		
Female	1.47	1.38,1.57	<0.001	
Race				
White	_	_		
Black or African-American	3.76	3.44,4.10	<0.001	
Other	2.14	1.98,2.31	<0.001	
Unknown	1.69	1.33,2.13	<0.001	
Age (in years)				
18-44	_	_		
45-64	0.76	0.71,0.81	<0.001	
65+	0.25	0.23,0.27	<0.001	
¹ OR – Odds Ratio, CI = Confide	nce Int	erval		

Results: HS vs Controls (cont.)

- Key HS demographics:
- Mean age was 51.9 years
- 84% female
- 66% White
- 17% Black or African-American
- Food security status significantly associated with HS (OR_{unadjusted} = 3.29 [2.21, 4.80]; OR_{adjusted} 2.09 [1.37, 3.11]), even after adjusting for confounders of sex, race, and age
- HS individuals neither White nor Black significantly increased risk of being food-insecure

Conclusions

- This study supports an association between HS and food insecurity. Use of self-selected population that may not fully represent broader HS population may limit generalizability of findings
- Further research needed to elucidate relationship between HS and food insecurity and how factors such as race may modify it, in order to guide future health interventions

References & Acknowledgments

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