

Hidradenitis suppurativa in patients with and without erythrasma



To the Editor: Hidradenitis suppurativa (HS) and erythrasma shared several environmental factors like high temperatures and humidity in the intertriginous areas, and risk factors like obesity and diabetes.¹

We conducted a prospective, cross-sectional study to compare the severity of HS between patients with and without erythrasma from January to June 2022. We included the patients who have been diagnosed with HS for more than a year and was treated with antibiotics in combination with either methotrexate or cyclosporine. We excluded those patients who had any other coexisting skin infections, who had applied topical antibiotics in the past 3 months and who had underwent surgery in the regions affected by the HS in the past 1 year. Two scales were used to assess the severity: Hidradenitis Suppurativa Severity Score System and Hurley. The diagnosis of erythrasma was made through a combination of clinical evaluation, positive Wood's light (coral red fluorescence), and with a skin scraping (staining with methylene blue for the presence of corynebacteria). All 3 findings were required to diagnose erythrasma. χ^2 test or Fisher's exact test were performed. A $P < .05$ was considered significant. The study was approved by the ethics and research committee of the Centro Médico Nacional La Raza.

Forty-three patients with HS were included. The coexistence of erythrasma was 53.5% (23/43). Twenty subjects (46.5%) reported pruritus. The general characteristics are observed in Table I. Greater severity of the disease was found among patients with erythrasma: Hurley III (15 vs 3; $P = .001$), severe Hidradenitis Suppurativa Severity Score System (14 vs 3; $P = .002$) (Table II).

The relationship between erythrasma and HS severity has not been determined. Corynebacterium, the agent of erythrasma, is found in greater abundance in intertriginous area which are the same sites principally affected by the HS.^{2,3} Gruenstein et al reported 4 cases of erythrasma in patients with HS, 3 females and 1 male, aged between 20 and 41 years, who had severe disease with a long evolution time. All 4 patients were presented with large erythematous and brown plaques with maceration and scales on the axillae and

Table I. General characteristics of patients with hidradenitis suppurativa

	HS N = 43
Sex (%)	
Male	18 (41.9)
Female	25 (58.1)
Age (y)	37.2 ± 12.3
HS evolution time (mo)	84 (24-27.8)
Smoking (%)	25 (58.1)
Comorbidities (%)	
CKD	2 (4.7)
SAH	9 (20.9)
Obesity	26 (60.5)
Latent tuberculosis	2 (4.7)
DM2	5 (11.6)
SLE	1 (2.3)
Pyoderma gangrenosum	2 (4.7)
Inflammatory bowel disease	0
Ankylosing spondylitis	0
HS topography (%)	
Submandibular	8 (18.6)
Scalp	12 (27.9)
Chest	3 (7)
Armpits	37 (86)
Groin	28 (65.1)
Genitalia	5 (11.6)
Intergluteus	10 (23.3)
Neck	1 (2.3)
Gluteus	13 (30.2)
Perianal	3 (7)
Abdomen	3 (7)
Submammary	5 (11.6)
Thighs	4 (9.3)
Back	2 (4.7)
Suprapubic	2 (4.7)
Canoui-Poitrine phenotypes (%)	
LC1 (axillary-mammary)	7 (16)
LC2 (follicular)	16 (37)
LC3 (gluteal)	20 (47)
Hurley (%)	
I	9 (21)
II	16 (37)
III	18 (42)
IHS4 (%)	
Slight	15 (34.9)
Moderate	11 (25.6)
Severe	17 (39.5)
DLQI	12.8 ± 6.6
Treatment	
Antibiotics	43 (100)
Methotrexate	32 (74.4)
Cyclosporine	11 (25.6)
Erythrasma (%)	23 (53.5)
Sex affected (%)	

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Table I. Cont'd

	HS N = 43
Male	18 (78)
Female	5 (22)
Erythrasma topography (%)	
Armpits	17 (73.9)
Groin	9 (39.13)
Submandibular	7 (30.4)
Posterior neck and scalp	4 (17.4)

CKD, Chronic Kidney Disease; DLQI, dermatology live quality index; DM2, type 2 diabetes mellitus; HS, hidradenitis suppurativa; IHS4, Hidradenitis Suppurativa Severity Score System; LC, latent class 1, 2, 3; SAH, systemic arterial hypertension; SLE, systemic lupus erythematosus.

Table II. Comparison of severity in patients with hidradenitis suppurativa with and without erythrasma

	With erythrasma (n = 23)	Without erythrasma (n = 20)	P
Hurley			
I	1 (4.3%)	8 (40%)	.001*
II	7 (30.4%)	9 (45%)	
III	15 (65.3%)	3 (15%)	
IHS4			
Slight	3 (13%)	12 (60%)	.002*
Moderate	6 (26%)	5 (25%)	
Severe	14 (61%)	3 (15%)	

The results are described in frequencies.

IHS4, Hidradenitis Suppurativa Severity Score System.

*Fisher's exact test.

groin region.⁴ In our study, the above-mentioned clinical characteristics could not be easily observed due to our population's skin phototype, which is darker. Thus, pruritus and directed exploration with Wood's light and direct examination were critical for diagnosis. Benzecry et al⁵ studied 46 patients with HS. They described that corynebacterias were found in 100% of cases in patients with Hurley III (28 cases), mainly in subdiaphragmatic regions. In our study, the corynebacteria were found in some patients but in supradiaphragmatic regions (armpits).

Our study showed a high coexistence of erythrasma in HS, predominating in severe stages of the disease. Therefore, dermatologists should consider

performing a wood's lamp examination to diagnose erythrasma in these patients.

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Conflicts of interest

None disclosed.

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