Prospective studies are needed to establish the prognostic implications of patterns of incidental PNI, but until then, this study represents, to our knowledge, the most thorough evaluation of incidental PNI in cutaneous SCC.

Alberto Conde-Ferreirós, MD,[a] Luis A. Corchete, MSc, PhD,[c,d,e] Ane Jaka, MD, PhD,[b] Ángel Santos-Briz, MD, PhD,[f] María José Fuente, MD, PhD,[b] Rodolfo Posada, MD,[g] Laura Pons, MD,[g] Sebastián Podlipnik, MD,[b] Ramón M. Pujol, MD, PhD,[i] Concepción Román-Curto, MD, PhD,[a,c] Agustí Toll, MD, PhD,[b,j] and Javier Cañueto, MD, PhD[a,c,j]

From the Department of Dermatology,[a] Instituto de Investigación Biomédica de Salamanca (IBSAL),[c] Department of Hematology,[e] and Department of Pathology;[f] Complejo Asistencial Universitario de Salamanca, Spain; Department of Dermatology[b] and Department of Pathology,[g] Hospital Germans Trias i Pujol, Badalona, Spain; Laboratory 12[d] and Laboratory 7,[j] Instituto de Biología Molecular y Celular del Cáncer de Salamanca - Consejo Superior de Investigaciones Científicas, Salamanca, Spain; Department of Dermatology, Hospital Clinic de Barcelona, University of Barcelona, Institut d'Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS), Spain[b]; Department of Dermatology, Hospital del Mar, Universitat Autònoma de Barcelona, Spain[i]; and Institut d'Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS), Barcelona, Spain.

Drs Conde-Ferreirós and Corchete contributed equally to this article.

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Correspondence to: Javier Cañueto, MD, PhD, Department of Dermatology, Complejo Asistencial Universitario de Salamanca, Paseo de San Vicente n° 58-182, 37007, Salamanca, Spain

E-mail: jcanueto@usal.es

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Association of clinical severity scores with psychosocial impact in patients with hidradenitis suppurativa

To the Editor: Hidradenitis suppurative (HS) is a painful, debilitating, chronic inflammatory disease associated with significant psychiatric comorbidity, isolation, and stigma.[1] Global prevalence ranges between 0.1% and 4%, with an estimated 33% of patients reporting symptoms of major depressive disorder and increased substance abuse.[2,3] This study examined the ability of clinical severity scores to detect significant psychologic impact, as assessed by standard psychometric tools.

Patients attending the HS Centre of Excellence outpatient clinic, McGill University Health Centre, were invited to participate in the study if they were diagnosed with HS, were aged ≥18 years, and understood English/French. Ethical approval was secured, and informed consent was obtained from participants.

Study participants were interviewed using a pretested questionnaire comprising 3 sections: (1) demographic and clinical characteristics, (2) scales to assess disease severity, and (3) assessment scales for psychiatric comorbidities and emotional health. Four tools were used to assess HS severity: (1) Hurley staging, (2) HS Physician Global Assessment (HS-PGA), (3) Severity Assessment of HS (SAHS) scale, and (4) International HS Clinical Severity Score (IHS4). Tools used to assess psychiatric comorbidities and emotional health included the Dermatology Life Quality Index (DLQI) and the Beck Depression Inventory (BDI-21).[4] The latter has excellent sensitivity and specificity for screening for signs/symptoms of depression (additional details available

Table I. Patient characteristics and assessment scales

Variable	Total (N = 131), No. (%)
Patient characteristic	
Sex	
Female	76 (58.02)
Male	55 (41.98)
Race/ethnicity	
African	17 (12.98)
White	82 (62.6)
Other	32 (24.42)
Body mass index	
Underweight (<18.5 kg/m^2)	1 (0.76)
Normal (18.5-24.9 kg/m^2)	22 (16.79)
Overweight (25-29.9 kg/m^2)	47 (35.88)
Obese (≥30 kg/m^2)	61 (46.56)
Family history of HS	34 (25.95)
Smoking status	
Active	57 (43.51)
Former	20 (15.27)
Never	54 (41.22)
Hurley stage	45 (34.45)
I	39 (29.77)
II	47 (35.88)
III	45 (34.45)
HS treatment in last 4 weeks	
Topical	24 (18.32)
Systemic	107 (81.68)
Current biologic therapy for HS	21 (16.03)
History of surgical intervention for HS	47 (35.88)
Clinical scales	
HS-PGA	
Clear (0)	7 (5.34)
Minimal (1)	14 (10.70)
Mild (2)	37 (28.24)
Moderate (3)	34 (25.95)
Severe (4)	17 (12.98)
Very severe (5)	22 (16.79)
IHS4	
Mild (≤3)	46 (35.11)
Moderate (4-10)	58 (44.28)
Severe (≥11)	27 (20.61)
VAS pain score category (past 1 week)	
Mild (1-3)	32 (24.43)
Moderate (4-6)	52 (39.69)
Severe (7-10)	34 (25.95)
SAHS score	
Mild (0-4)	46 (35.11)
Moderate (5-8)	48 (36.64)
Severe (≥9)	37 (28.24)
Psychiatric and emotional health scales	
BDI-21 Severity Category score	
Normal (1-10)	68 (51.91)
Mild (11-16)	27 (20.61)
Borderline (17-20)	11 (8.4)
Moderate (21-30)	15 (11.45)
Severe (31-40)	8 (6.11)
Extreme (>40)	2 (1.53)
DLQI category score	
None (0-1)	13 (9.92)
Small (2-5)	21 (16.03)
Moderate (6-10)	29 (22.14)
Large (11-20)	38 (29.01)
Extreme (21-30)	30 (22.9)

BDI-21, Beck Depression Inventory; *DLQI*, Dermatology Life Quality Index; *HS-PGA*, HS Physician Global Assessment; *IHS4*, International HS Severity Scoring System; *No.*, number; *SAHS*, Severity Assessment of Hidradenitis Suppurativa; *VAS*, visual acuity scale for pain.

via Mendeley at https://data.mendeley.com/datasets/4ydzgp7m46/draft?a=a561edaf-ed73-48a9-8df2-4cca47a7d23c).

The study included 131 adult patients with HS (Table I). Of these, 76 (58.02%) were women, and 82 (62.6%) were White, with a mean age of 38.11 ± 14.32 years.

When correlated with DLQI scores, patients with an IHS-4 score ≥3.5 were 9.4-times more likely to experience moderate to severe impairment of quality of life (QoL). Similarly, patients with SAHS ≥5.5 were 6.2-times more likely to have moderate to severe QoL impairment. The optimal cutoff point for detection of moderate to severe impact on QoL for the IHS-4 was 3.5, with sensitivity of 77% and specificity of 74%. An SAHS cutoff score of 5.5 showed sensitivity of 72% and specificity of 71%.

The IHS-4 and SAHS cutoff scores both demonstrated statistically significant diagnostic ability with an acceptable value for the area under the curve of 78.7 (95% confidence interval [CI], 69.6-87.8) for IHS-4 and 73.3 (95% CI, 63.8-82.7) for SAHS predicting a moderate to severe impact on the QoL (Fig 1, *upper panel*).

When correlated with the BDI-21 scores, none of the clinical severity scores demonstrated statistically significant diagnostic accuracy for depression, with the area under the curve for IHS-4 of only 59.6 (95% CI, 48.1-71.0) and for SAHS 59.6 (95% CI, 48.6-70.6) (Fig 1, *lower panel*). However, based on these graphs, possible cutoff points of 5.5 for IHS4 and 6.5 for SAHS were noted to correspond to 61% and 63% specificity, respectively, and ~67% sensitivity for both.

While these findings are intriguing and suggest that clinical severity scores may be used to predict substantial psychologic/psychiatric disease, future

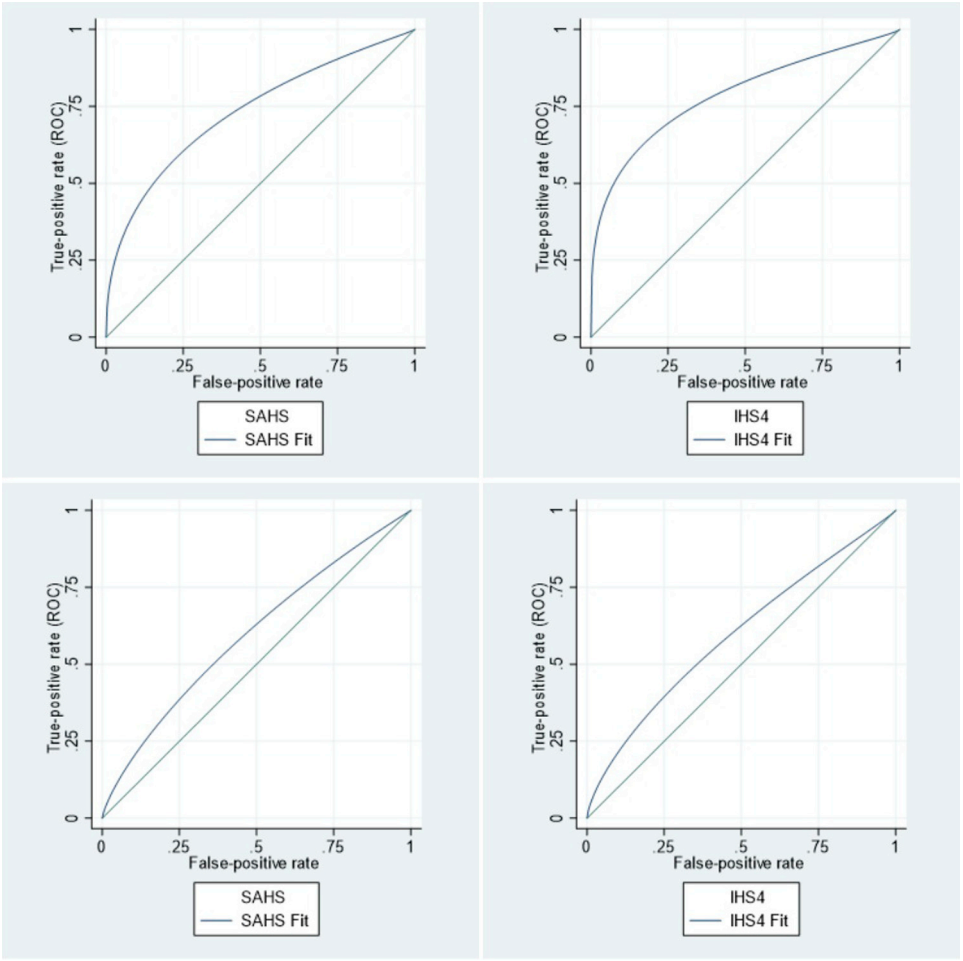

Fig 1. Hidradenitis suppurativa. Receiver operative characteristic (*ROC*) curve shows correlation of the Dermatology Life Quality Index (*DLQI*) with (**upper left panel**) Severity Assessment of Hidradenitis Suppurativa (*SAHS*) and (**upper right panel**) International HS Severity Score System (*IHS4*). Receiver operating characteristic curve shows **(lower left panel)** correlation of the Beck Depression Inventory (*BDI-21*) with the SAHS and with (**lower right panel**) the IHS4.

larger multicenter studies would be necessary to validate and extend our findings.

Abdulhadi Jfri, MD, MSc,[a] Elena Netchiporouk, MD, MSc, FRCPC,[a] Katherine Raymond, MD, FRCPC,[b] Ivan V. Litvinov, MD, PhD, FRCPC,[a] and Elizabeth O'Brien, MD, FRCPC[a]

From the Division of Dermatology, Department of Medicine, McGill University Health Centre, Montreal General Hospital, Montreal, Quebec[a]; and the Division of Psychiatry, University of Montreal, Montreal, Quebec, Canada.[b]

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Correspondence to: Elizabeth O'Brien, MD, FRCPC, Montreal General Hospital, Department of Medicine, Division of Dermatology, 1650 Ave Cedar, Montreal, QC H3G 1A4, Canada

E-mail: elizabeth.obrien@mcgill.ca

Correspondence to: Ivan V. Litvinov, MD, PhD, FRCPC, Room E02.6236, 1001 Decarie Blvd, Montréal, Québec, H4A 3J1, Canada

E-mail: ivan.litvinov@mcgill.ca

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Improvement in body surface area is associated with better quality of life among patients with psoriasis in the Corrona Psoriasis Registry

To the Editor: In an effort to improve care for patients with psoriasis in the United States, the National Psoriasis Foundation recently published recommended treatment goals based on assessment of body surface area (BSA).[1] Although BSA is a widely accepted measure of disease severity, it does not specifically capture quality of life (QoL).

We evaluated the association of BSA with QoL, assessed by the Dermatology Life Quality Index (DLQI), after 6 and 12 months of treatment with systemic therapy among patients in the Corrona Psoriasis Registry.[2] This study included 665 patients who had complete data on BSA at their enrollment and 6- and 12-month visits among the 2825 patients enrolled in the Corrona Psoriasis Registry between April 2015 and May 2017. The relative change in DLQI, a composite measure evaluating the effect of the disease on QoL,[3] and the proportion of patients with DLQI of greater than 5 at enrollment achieving DLQI 0/1 was determined at 6 and 12 months. BSA was reported as the percent skin involvement on a scale of 0% to 100%, with psoriasis severity classified as mild (BSA $\leq$ 3%) and moderate to severe (BSA $>$ 3%).[1]

Of the 665 patients with psoriasis who met the study criteria, 306 (46%) patients had mild BSA, and 359 (54%) patients had moderate to severe BSA at enrollment. Among patients with BSA of greater than 3% at enrollment, 45 (12%) achieved BSA of 0%, 49 (14%) achieved BSA of 1%, 76 (21%) achieved BSA of 2% to 3%, and 189 (53%) remained at BSA greater than 3% at the 6-month visit. Relative change in DLQI increased (indicating improvement in DLQI) as BSA decreased (indicating improvement in BSA) (Fig 1). At the 6-month visit, patients who were in the BSA >3% group had a worsening in DLQI of 47%, whereas patients who achieved a BSA of 0% had a 57% improvement in DLQI score. At the 12-month visit, 54 (15%) achieved BSA of 0%, 75 (21%) achieved BSA of 1%, 76 (21%) achieved BSA of 2% to 3%, and 154 (43%) maintained BSA >3%. Patients in the BSA >3% group at the 12-month visit had a worsening of DLQI by 46%, whereas patients who achieved BSA of 0% had a 71% improvement in DLQI score. Among the subsets of patients whose BSA improved but remained greater than 3% at 6 (n = 104) and 12 months (n = 86), there was a mean (standard error) decrease of 8% (13%) and increase of 4% (12%) in DLQI, respectively. We observed a significant association between BSA achievement and relative improvements in DLQI at 6 and 12 months (1-way analysis of variance, $P < .001$ for both) such that patients achieving lower BSA levels had higher mean DLQI improvement. Overall, 26% of patients achieved DLQI of 1 or less at 6 months and 43% of patients achieved DLQI of 1 or less at 12 months. The proportion of patients who achieved DLQI of 1 or less was highest among patients who had the lowest BSA at 6 and 12 months (chi-square test, $P < .001$ for both) (Fig 2).

Our study shows that among patients with psoriasis being treated with systemic therapies, greater skin clearance indicated by BSA is associated with greater improvements in QoL. The results of our study further strengthen the evidence supporting the utility of BSA as an indicator of improvement in patient QoL.

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Jashin J. Wu, MD,[a] Amy Schrader, MS,[b] Robert R. McLean, DSc, MPH,[b] Wendell Valdecantos, MD,[c] Carol Etzel, PhD,[b] and Rakesh Singh, PhD[c]

From the Dermatology Research and Education Foundation, Irvine, California[a]; Corrona, LLC, Waltham, Massachusetts[b]; and AbbVie Inc, North Chicago, Illinois.[c]

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