RESEARCH LETTER

The Hidden Socioeconomic Toll of Severe Hidradenitis Suppurativa

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To the Editor,

Hidradenitis suppurativa (HS) is a chronic-recurrent, inflammatory skin disease that primarily affects intertriginous skin areas (1). HS is associated with a substantial physical and psychological burden, significantly impairing patients' quality of life and socioeconomic performance (1, 2).

Schneider-Burrus et al., in a multicentre study involving 481 patients with HS across 64 sites in Germany, demonstrated that HS is associated with substantial impairment in work ability and productivity, along with a considerable loss in gross value added. Assuming a prevalence of 1% for HS, the authors estimated annual costs attributable to unemployment, absenteeism, and presenteeism in Germany at €12.6 billion (2). Moreover, they reported that impaired work productivity correlated with disease severity (2–4).

While data on the relationship between HS severity and workplace performance – indirectly assessed through unemployment, absenteeism, and presenteeism – are available and have been summarized recently in a systematic review and meta-analysis, information on actual working hours and its association with disease severity is still lacking (1).

We conducted a cross-sectional study between February and December 2024 at the HS outpatient clinic of the Department of Dermatology, Venereology, and Allergy at the Medical University Innsbruck, Austria. A total of 57 patients with HS (18 women and 39 men), were included in this analysis. The median age was 37 years (IQR 32.5–42.5) (**Table I**). To avoid potential bias, we applied an upper age limit of 60 years to enrol only working-age individuals as the average retirement age in Austria for the year 2023 is 60.2 years for women and 62.2 years for men (5). HS severity was assessed using both the Hurley staging system and the International Hidradenitis Suppurativa Severity Score System (IHS4). Patients in the study cohort reported an average of 26.5 ± 18.4 working hours per week (**Table II**). When stratified by disease severity according to the International Hidradenitis Suppurativa Severity Score System (IHS4), patients with mild HS worked a median of 40.0 h/week ($n = 26$, IQR: 38.5–42.8), those with moderate HS worked 38.5 h/week ($n = 10$, IQR: 7.3–40.0), and those with severe HS reported a markedly lower median of 4.0 h/week ($n = 21$, IQR: 0.0–34.3). These differences were statistically significant (Kruskal–Wallis test, $p < 0.001$) (Table II). Similarly, stratification by Hurley stage revealed a median of 40.0 h/week ($n = 8$, IQR: 38.5–41.5) for Hurley stage I, 38.5 h/week ($n = 31$, IQR: 6.0–40.0) for Hurley stage II, and 6.3 h/week ($n = 18$, IQR: 0.0–38.6) for Hurley stage III patients (Kruskal–Wallis test, $p = 0.009$) (Table II).

Table I. Characteristics of the 57 patients with hidradenitis suppurativa (HS) enrolled in the study between February and December 2024

Total sample size, *n*	57
Age, years, median (IQR)	37 (32.5–42.5)
Sex, female, *n* (%)	18 (31.6)
Sex, male, *n* (%)	39 (68.4)
BMI, kg/m², mean ± SD (*n* = 57)	30.1 ± 5.8
Active nicotine use, *n* (%) (*n* = 57)	45 (79.0)
Hurley stage, *n* (%)	
Stage I	8 (14.0)
Stage II	31 (54.4)
Stage III	18 (31.6)
IHS4 score, *n* (%)	
IHS4 mild	26 (45.6)
IHS4 moderate	10 (17.5)
IHS4 severe	21 (36.8)

IQR: interquartile range; BMI: body mass index; IHS4: International Hidradenitis Suppurativa Severity Score System 4; SD: standard deviation.

To the best of our knowledge, this is the first objective quantification of the impact of HS on professional life by correlating actually worked hours with disease severity. Our findings regarding average weekly working hours are consistent with those reported by Yao et al., who found a mean of 27.8 ± 16.7 h worked over the past 7 days across the entire HS cohort (6). Importantly, our data demonstrate that patients with the most severe forms of HS – namely Hurley stage III and IHS4-Score severe HS – experience an almost complete loss of work productivity, as reflected

Table II. Results of the working hour assessment in patients with hidradenitis suppurativa

Working hours per week mean ± SD (*n* = 57)	26.5 ± 18.4
Working hours per week median (IQR) (*n* = 57)	38.5 (4.5–40.0)
Working hours per week Hurley stage, median (IQR) – *p* = 0.009	
Stage I (*n* = 8)	40.0 (38.5–41.5)
Stage II (*n* = 31)	38.5 (6.0–40.0)
Stage III (*n* = 18)	6.3 (0.0–38.6)
Working hours per week IHS4 score, median (IQR) – *p* < 0.001	
IHS4 mild (*n* = 26)	40.0 (38.5–42.8)
IHS4 moderate (*n* = 10)	38.5 (7.3–40.0)
IHS4 severe (*n* = 21)	4.0 (0.0–34.3)

IQR: interquartile range; IHS4: International Hidradenitis Suppurativa Severity Score System 4; SD: standard deviation. *P*-values: significance level was set at 0.05.

by median working hours of only 6 h per week (Hurley stage III) and 4 h per week (IHS4-Score severe HS).

These findings underscore the substantial socioeconomic burden of hidradenitis suppurativa and emphasize the critical importance of initiating adequate and highly effective treatment early in the disease course – not only to improve patients' quality of life and reduce the economic impact of the disease, but also to prevent blocked upward mobility among those affected (1, 7).

Limitations of this study include the small sample size, single-centre design, and lack of differentiation by occupational status or educational background, highlighting the need for further research to validate and expand upon these findings. It will be critical to explore why patients with severe HS are unable to develop their full potential in the workforce. Possible explanations include HS-associated pain, movement restrictions, superinfection, and hospitalization. We and others have reported that pain in HS patients represents a significant disease burden for patients impacting all aspects of life (1–3, 8).

Future studies should investigate whether better pain control or the use of anti-inflammatory therapy at earlier disease stages could prevent progression to more severe HS and prevent work impairment. Prevention of disease progression could help preserve productivity, thereby not only reducing the health burden, but also substantially mitigating the gross/global and individual economic consequences associated with severe HS.

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In this article, ChatGPT 4o (OpenAI, San Francisco, CA, USA) was used to refine the linguistic expression.

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REFERENCES

1. Merchant SA, Shah SFH. The impact of hidradenitis suppurativa on work productivity and performance: a systematic review and meta-analysis. Clin Exp Dermatol 2024; 49: 1156–1163. https://doi.org/10.1093/ced/llae120
2. Schneider-Burrus S, Kalus S, Fritz B, Wolk K, Gomis-Kleindienst S, Sabat R. The impact of hidradenitis suppurativa on professional life. Br J Dermatol 2023; 188: 122–130. https://doi.org/10.1093/bjd/ljac027
3. Kearney N, Kirby B. The devastating impact of hidradenitis suppurativa on employment. Br J Dermatol 2023; 188: 9–10. https://doi.org/10.1093/bjd/ljac079
4. Sandhu VK, Shah M, Piguet V, Alavi A. The impact of hidradenitis suppurativa on work productivity and activity impairment. Br J Dermatol 2020; 182: 1288–1290. https://doi.org/10.1111/bjd.18695
5. Statistik Austria DdS. Alterspensionen und Invaliditäts-/Erwerbsunfähigkeitspensionen. – Ohne Bezieher:innen von Rehabilitationsgeld. 2024 available from https://www.statistik.at/statistiken/bevoelkerung-und-soziales/gender-statistiken/pensionen
6. Yao Y, Jorgensen AR, Thomsen SF. Work productivity and activity impairment in patients with hidradenitis suppurativa: a cross-sectional study. Int J Dermatol 2020; 59: 333–340. https://doi.org/10.1111/ijd.14706
7. Tzellos T, Yang H, Mu F, Calimlim B, Signorovitch J. Impact of hidradenitis suppurativa on work loss, indirect costs and income. Br J Dermatol 2019; 181: 147–154. https://doi.org/10.1111/bjd.17101
8. Regensberger F, Andre F, Schmuth M. Flare-ups: new insights into the burden of pain in hidradenitis suppurativa. Acta Derm Venereol 2025; 105: adv43124. https://doi.org/10.2340/actadv.v105.43124