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Introduction

- Hidradenitis suppurativa (HS)** is a chronic, debilitating skin disease characterized by painful nodules, abscesses, and sinus tracts that often require surgical management.
- Psychiatric comorbidities—including depression, anxiety, and substance use—occur in up to 57% of HS patients, far higher than in the general population (1).
- These comorbidities can worsen disease severity, delay treatment, and increase emergency department (ED) utilization.
- Prior studies describe the psychosocial burden of HS (2), but few have examined how psychiatric illness affects perioperative outcomes or financial toxicity in surgical HS populations.
- Because anesthesiologists play a key role in risk stratification and perioperative optimization, understanding mental health factors is essential.
- This study evaluates how psychiatric comorbidities influence:
 - Operative frequency**
 - Emergency department visits**
 - Financial hardship**
- Findings aim to support multidisciplinary perioperative care and guide anesthesiology-led interventions for high-risk, high-utilization HS patients (3).

Methods & Materials

- Design:** Retrospective chart review (2010–2021) at a single urban tertiary wound center.
- Population:** Adults with HS undergoing surgery by the senior plastic surgeon.
- Data collected:** Age, sex, BMI, comorbidities, Hurley stage.
- Cohorts:** Patients with vs. without DSM-5 psychiatric diagnoses (depression, anxiety, schizophrenia, substance use).
- Primary outcomes:** Number of HS surgeries, ED visits, hospital LOS.
- Financial toxicity:** Assessed using COST-FACIT v2; only survey respondents included.
- Secondary outcomes:** Employment, credit score, coping behaviors.
- Analysis:** Multivariate linear regression controlling for key confounders; significance set at $p < 0.05$; STATA 17.0.

COST – FACIT (Version 2)

Below is a list of statements that other people with your illness have said are important. Please circle or mark one number per line to indicate your response as it applies to the past 7 days.

	Not at all	A little bit	Somewhat	Quite a bit	Very much
711 I know that I have enough money in savings, retirement, or assets to cover the costs of my treatment.....	0	1	2	3	4
712 My out-of-pocket medical expenses are more than I thought they would be.....	0	1	2	3	4
713 I worry about the financial problems I will have in the future as a result of my illness or treatment.....	0	1	2	3	4
714 I feel I have no choice about the amount of money I spend on care.....	0	1	2	3	4
715 I am frustrated that I cannot work or contribute as much as I usually do.....	0	1	2	3	4
716 I am satisfied with my current financial situation.....	0	1	2	3	4
717 I am able to meet my monthly expenses.....	0	1	2	3	4
718 I feel financially stressed.....	0	1	2	3	4
719 I am concerned about keeping my job and income, including work at home.....	0	1	2	3	4
720 My cancer or treatment has reduced my satisfaction with my present financial situation.....	0	1	2	3	4
721 I feel in control of my financial situation.....	0	1	2	3	4
722 My illness has been a financial hardship to my family and me.....	0	1	2	3	4

Fig 2. COST-FACIT 2 Survey.

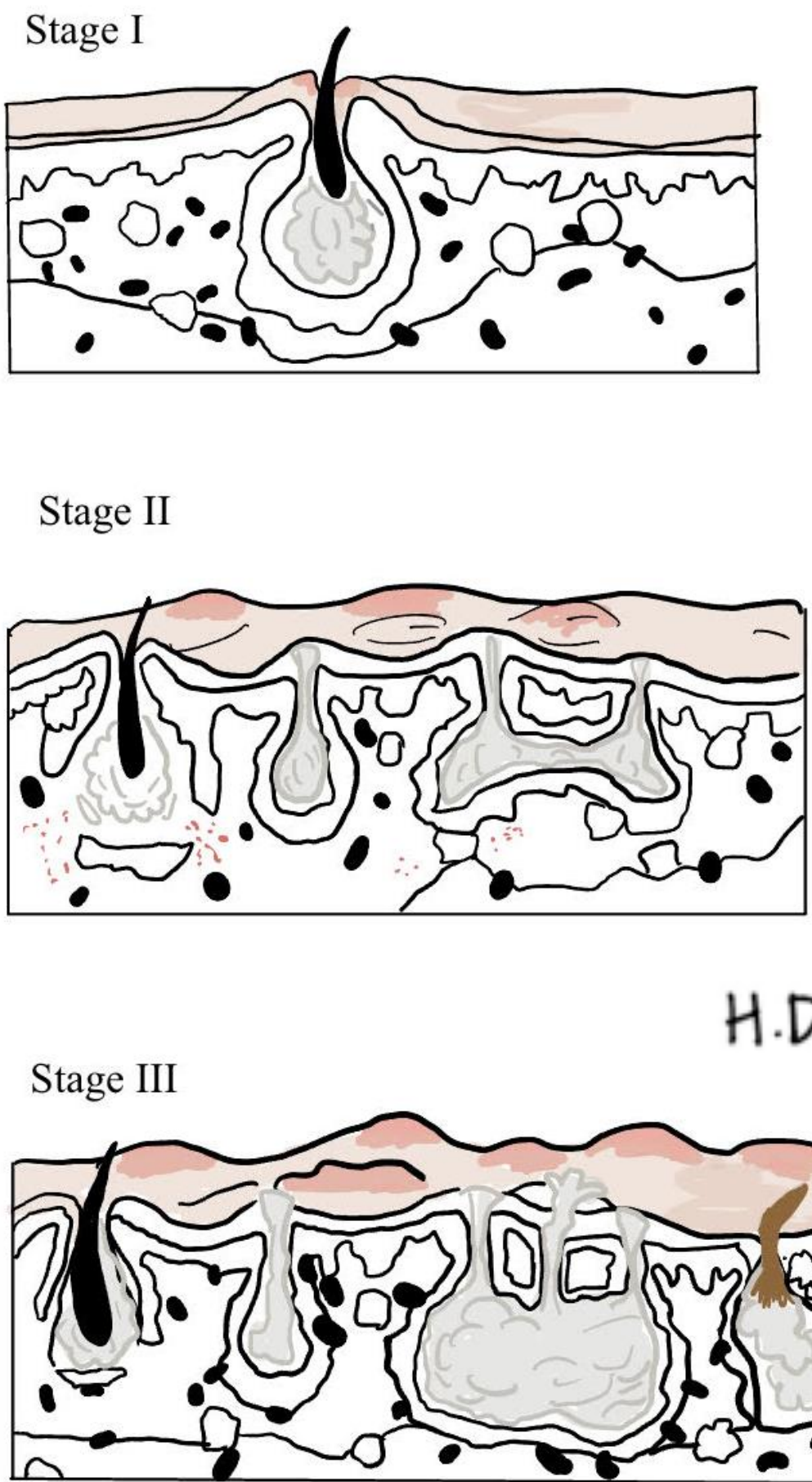


Fig 1. Hurley stages of HS.

Table 1 Patient demographics and general surgical management outcomes

	Total (n = 40) N, %	Control (n = 21) N, %	Psych comorbid (n = 19) N, %	p-Value
Demographics				
Age (years), mean ± SD	27.1 ± 10.9	28.6 ± 11.1	25.4 ± 10.7	0.324
BMI (kg/m ²), mean ± SD	33.5 ± 1.8	32.3 ± 2.4	34.8 ± 2.6	0.487
Females	29 (72.5)	16 (80.0)	13 (72.2)	0.572
Hurley Stage, [IQR]	3 [1]	3 [1]	3 [1]	0.486
Smoking Hx	16 (38.1)	6 (26.1)	10 (52.6)	0.078
Diabetes mellitus	9 (22.0)	4 (17.4)	5 (27.8)	0.428
Annual household income (\$), mean ± SD	65,021.63 ± 7,981.37	71,060.67 ± 12,360.03	57,257.14 ± 9,061.58	0.392
Credit score; mean ± SD	674.2 ± 19.1	721.7 ± 62.5	600.2 ± 29.2	<0.001
Unemployment	14 (31.8)	5 (31.3)	9 (42.9)	0.472
Currently receiving medical treatment for HS	28 (70.0)	16 (72.7)	12 (54.6)	0.214
Overall surgical management outcomes				
Number of surgeries per patient; Med [IQR]	3.0 [6.0]	1.5 [3.0]	7.0 [9.0]	<0.001
Surgery type				
Any procedure	190 ^a	44 (23.2)	146 (76.8)	<0.001
Debridement	7 (3.7)	3 (6.8)	4 (2.7)	0.203
Incision and Drainage	57 (30.0)	17 (38.6)	40 (27.4)	0.154
Excision	99 (52.1)	24 (54.5)	75 (51.4)	0.482
Colostomy	15 (7.9)	0	15 (10.3)	0.088
Flap	12 (6.3)	0	12 (8.2)	0.162
Hospital length of stay (days), Med [IQR]	6 [11]	3 [4]	4 [11]	0.456
Emergency department visits, Med [IQR]	0 [3]	0 [1]	1 [12]	0.006
Mean follow-up (months), mean ± SD	16.1 ± 11.0	16.8 ± 12.9	15.3 ± 8.8	0.680
Adapted coping habits after HS surgery	24 (60.0)	9 (42.9)	15 (78.9)	0.020

Abbreviations: BMI, body mass index; HS, hidradenitis suppurativa; Hx, history; SD, standard deviation; IQR, interquartile range. Bold p-values represent significance.

^aTotal number of procedures does not have a true percentage as it reflects the total amount of procedures for all patients in the study.

Results

Of 138 HS patients treated surgically, 40 (29.0%) completed the COST-FACIT survey; 47.5% had a psychiatric diagnosis. The psychiatric cohort underwent significantly more surgeries (median 7.0 vs. 1.5; $p < 0.001$) and ED visits (median 1.0 vs. 0; $p = 0.006$), with no difference in hospital length of stay. Multivariate regression confirmed psychiatric comorbidity as an independent predictor of increased surgical burden ($B = 7.3$; $p < 0.001$), more ED visits ($B = 4.4$; $p = 0.032$), and lower credit scores ($B = -109.4$; $p = 0.021$). Both cohorts reported grade 1 financial toxicity, but the psychiatric group experienced significantly greater perceived financial hardship ($p < 0.001$).

Discussion

- Psychiatric comorbidities in HS are associated with higher surgical burden, increased ED utilization, and greater financial hardship.
- Despite similar Hurley disease severity, patients with psychiatric diagnoses underwent 5× more surgeries and had lower credit scores.
- Mental health conditions may exacerbate disease progression, delay routine care, and increase perioperative complexity.
- For anesthesiologists, early preoperative identification of psychiatric illness is critical.
- Psychiatric comorbidities may influence medication adherence, pain perception, and postoperative recovery, requiring tailored perioperative plans.
- Socioeconomic vulnerability underscores the need for interdisciplinary care involving mental health providers and social workers.
- Financial toxicity, even among insured patients, highlights the importance of cost-conscious, patient-centered perioperative care for HS patients with psychological distress.

References

(1) Shlyankevich J, et al. J Am Acad Dermatol. 2014;71(6):1144–1150.
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(3) Gooderham M, Papp K. J Am Acad Dermatol. 2015;73(5 Suppl 1):S19–S22.