Characterization of patient perception of odor severity in hidradenitis suppurativa using TARGET-DERM HS

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Introduction

- HS-related odor (or smell) is frequently reported by HS patients but rarely quantitatively evaluated from a patient perspective.
- It is unclear if differences exist across the continuum of odor severity and which demographic and/or disease characteristics may be associated with greater odor severity.
- The aim of this patient-centric analysis is to identify characteristics associated with HS odor severity in a real-world HS patient cohort.

Methods

- This is a cross-sectional analysis of HS patients ≥12 years who completed the Hidradenitis Suppurativa Severity Assessment (HSSA) [1] at enrollment into TARGET-DERM HS, a longitudinal observational registry in the US and Canada.[2]
- Without a specific cutoff to define severe HS-related odor, we categorized patients into distinct quartiles based on their perceived odor severity, quartiles were derived from patient responses to the HSSA Question #8 (Odor Severity).
- Descriptive statistics were calculated including means, medians, frequency and distributions of the clinician- and patient-reported outcomes (listed below).
- Characteristics were compared across all quartiles using Jonckheere-Terpstra, Cochran-Armitage or Cochran-Mantel-Haenszel, Kruskal-Wallis, Chi-squared, or Fisher's exact test where appropriate.
- Multivariable modelling for HiSQoL, DLQI, PROMIS-Depression, and PROMIS-Anxiety was completed using HSSA Odor Severity question, demographics, and clinician-reported outcomes as covariates.

Clinician-Reported Outcomes at Enrollment

- HS-PGA, Hidradenitis Suppurative Physician Global Assessment, 0 (Clear) – 5 (Very severe)
- Hurley Stage, 1 – 3
- The anatomical locations (body sites included abdomen, axillae, breast, buttock, groin, thigh, and other) and the numerical counts of abscesses, nodules, fistulas, and the sum of abscesses and nodules.

Patient-Reported Outcomes:

- HSSA Question 8 Odor Severity, "In the past 7 days, how bad was the smell coming from the area(s) affected by your HS? 0 (No bad smell) – 10 (Extremely bad smell)
- HiSQoL, Hidradenitis Suppurativa Quality of Life 0 (No effect) – 68 (Extreme effect) [3]
- PROMIS-Anxiety T-Score 40.9 (Mild) – 85.2 (Severe)
- PROMIS-Depression 41.0 (Mild) – 79.4 (Severe)

Results

- 447 HS patients (mean age 36 years, 79.4% female; 51.8% Non-Hispanic White among US patients) were included.
- HSSA Question 8 response quartiles:

Figure 1 Odor severity distribution by sex

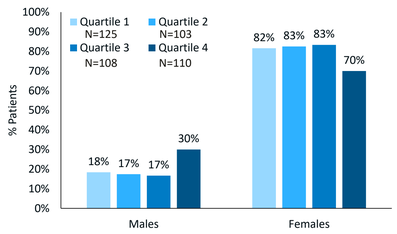
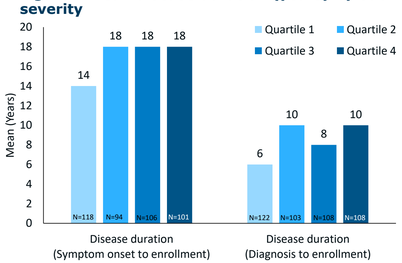


Figure 2 Mean disease duration (years) by odor severity



- Among males and patients with longer disease duration, a higher proportion were more likely to report increased odor severity (p<.05, Figures 1 and 2).
- Odor severity did not vary by age group or obesity status (not shown).

Figure 3 Odor severity distribution by Hurley stage

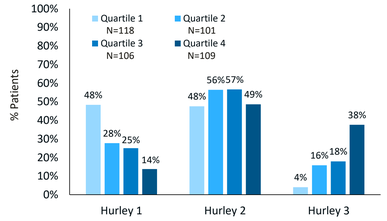
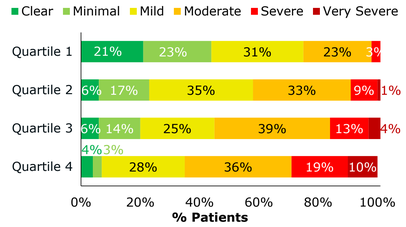


Figure 4 HS-PGA distribution by odor severity subgroup



- Trend testing showed that as the disease severity increased, odor severity was significantly higher, based on Hurley stage and HS-PGA (p<.0001, Figures 3 & 4), and the number of HS anatomical locations (p<.002, Figure 5).
- Odor severity increased with an increasing number of HS lesions (p<.0001).
- Surprisingly, even in patients without abscesses or fistulas, odor severity increased with a higher nodule count (Figure 6).
- Patients currently experiencing a flare and those reporting more severe drainage had greater odor severity (Figure 7 and p<.0001, Figure 8).
- Higher total scores on the HSSA and HiSQoL were associated with worse odor severity (p<0.0001), highlighting the need to explore the impact of odor on quality of life.
- After adjusting for covariates, the models confirmed that odor severity significantly affects HiSQoL, DLQI, and PROMIS Depression and Anxiety scores.

Figure 5 Mean number of body sites with HS involvement by odor severity subgroup

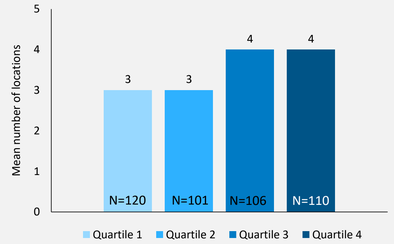


Figure 6 Mean lesion count by type and odor severity subgroup

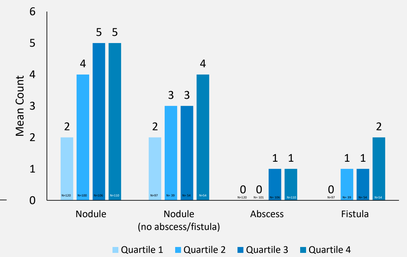


Figure 7 Percentage of patients currently flaring by odor severity subgroup

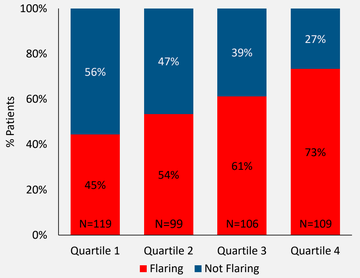
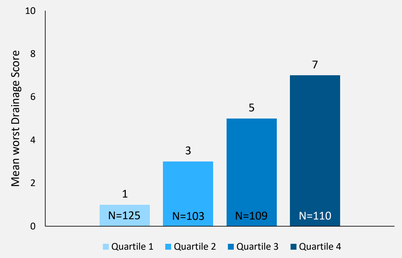


Figure 8 Mean worst drainage score by odor severity subgroup



Conclusions

Given the frequency and severity of odor reported by HS patients across multiple demographics and disease characteristics, these data highlight the importance of assessing odor severity and its impact on patients' QoL.

References

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