

Appendix S1.

MATERIALS AND METHODS

The study was approved by the Danish Data Protection Agency of Region Zealand (REG-135-2014), which was conducted at Roskilde Hospital, Department of Dermatology, from January 2015 to June 2015.

Study participants

Inclusion criteria were: a verified diagnosis of hidradenitis suppurativa (HS) (International Classification of Diseases (ICD)-10 code: L732), and age over 18 years.

Study design

A descriptive study of 45 patients with HS.

Information on HS-related pain

Two standardized questionnaires were used: the Brief Pain Inventory (BPI) short form (S1) and the Hospital Anxiety and Depression (HAD) scale (S2), using the Danish-translated version. The BPI is a self-administered questionnaire designed to evaluate pain and its potential consequences. The BPI items are scores using a numerical rating scale from 0 to 10. Items measure the level of pain-related interference of pain with daily activities (i.e. mood, walking ability, normal work, relationships with others, sleep, and enjoyment of life) using 0 (no interference) to 10 (complete interference) on the rating scale. HAD is divided into an anxiety subscale (HAD-A) and a depression subscale (HAD-D), both containing 7 intermingled items. Each item on the questionnaire consists of a 4-point (0–3) response category, yielding a total range from 0 to 21 for each

subscale. Subscales in HAD define the degree of anxiety and depression, where 0–7 = normal, 8–10 = borderline abnormal (borderline case) and 11–21 = abnormal (case) (9).

HS severity

A dermatologist assessed the patients during the physical examination using the Hurley staging and the Sartorius score. Both systems rely on physical findings, such as involvement of specific anatomical sites, number of nodules, sinus tracts and scars. The Hurley system is 3-level a classification (mild, moderate and severe (I–III)). The Sartorius system allows the calculation of a numerical score for each body area involved and points are awarded for each skin manifestation, with no upper limit.

Statistical analysis

Variables were noted corresponding to the questionnaire items (BPI and HAD), as described above. Changes between patients with a Hurley score from I to III were evaluated by Kruskal-Wallis 1-way analysis of variance on ranks, followed by a Dunn's *post-hoc* test. If any differences between groups were detected a Mann-Whitney signed-rank test was applied. *p*-value < 0.05 was considered statistically significant (Systat Software GmbH., Erkrath, Germany). Data are presented as median (interquartile range).

SUPPLEMENTARY REFERENCES

- S1. Pain assessment: global use of the Brief Pain Inventory. Cleeland CS, Ryan KM. *Ann. Acad. Med. Singap.* 1994; 23: 129–138.
- S2. Zigmond AS, Snaith RP. The Hospital Anxiety and Depression scale. *Acta Psychiatr Scand* 1983; 67: 361–370.

Table SI. Characteristics of patients with hidradenitis suppurativa (n = 45)

Characteristic	
Age, years, mean (range)	44 (35–51)
Sex (female:male), n	33:12
Smokers (%)	71
Anatomical site affected, n (%)	
Axillary	17 (22)
Chest	5 (6)
Buttocks	15 (20)
Groin	22 (28)
Pubic area	5 (6)
Genitals	9 (12)
Perineum	5 (6)
Total*	78 (100)

*Some patients had > one anatomical site affected.

Table SII. Brief Pain Inventory (BPI) questions among patients with hidradenitis suppurativa (HS) according to Hurley stage of HS severity

11-point numerical rating scale	Hurley stage I	Hurley stage II	Hurley stage III	All patients
Age, years, median (range)	38 (24–48)	44 (23–63)	46 (33–66)	44 (35–51)
Patients, <i>n</i>	7	29	9	45
Sex (female:male), <i>n</i>	6:1	23:6	4:5	33:12
Sartorius	9 (7–11)	20 (13–27)	44 (41–91)*, **	20 (11–38)
Pain severity questions				
Pain at its worst in the last 24 h	0 (0–1.75)	4 (1.5–7)	7 (4.5–8.5)*	4 (0–7)
Pain at its least in the last 24 h	0 (0–0)	2 (0.5–5)	4 (1.5–5.25)*	2 (0–5)
Pain at its average in the last 24 h	1 (0.25–2)	4 (1.5–6.5)	6 (3–8)*	4 (1–6.25)
Pain at the time of investigation	0 (0–0)	2.5 (0–5.5)	6 (3.75–8.25)*	2 (0–6)
Pain relief of subscribed medicine (%)	40 (0–90)	20 (20–70)	30 (7.5–65)	10 (0–30)
Pain interference, median (range)				
General activity	0 (0–0)	2 (0–6)	7 (2.25–8.25)*	2 (0–6)
Mood	2 (0–2.75)	4 (1.25–6)	4 (1.5–6.5)	3 (1–6)
Walking ability	0 (0–0.75)	2 (0–5.75)	5 (2.25–9)	2 (0–6)
Ability to work	0 (0–0)	2 (0–5.75)	5 (0.75–7)*	2 (0–5.5)
Relationships with other people	0 (0–0)	4 (0.25–6)	5 (4–6.25)*	3 (0–5.5)
Sleep	0 (0–0)	3 (0–5)	3 (1–8.5)*	2 (0–5)
Enjoyment of life	0 (0–0.75)	4 (1.25–6.75)	4 (3.5–9)*	4 (0–7)
Anxiety score (HAD-A), median (range)	7 (2.75–12.25)	9.5 (6.5–12.5)	7 (3.75–15.25)	9 (5–14)
Depression score (HAD-D), median (range)	2 (1–8.25)	9 (2.5–11.5)	11 (3.5–13.5)	9 (2–12)

Data are presented as median (interquartile range), except for age.

**p*-values <0.05 between Hurley stages I and III; and **between Hurley stages II and III.