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SHORT COMMUNICATION

Pain in Hidradenitis Suppurativa: A Pilot Study

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Hidradenitis suppurativa (HS) is a chronic, inflammatory and often painful, skin disease presenting as recurrent nodules and tunnels (sinus tracts) with subsequent scarring predominantly involving the intertriginous regions. The nodules progress from non-inflamed, through inflamed nodules, to abscesses that may rupture causing suppuration and severe malodorous discharge (1). Estimates of the prevalence of HS range from 0.05% to 4% (2).

Although it has been shown that the hair follicle is central to the pathogenesis of the disease the exact aetiology of HS is unknown (3, 4). Adjuvant measures may alleviate the symptoms; however, many patients require surgery to manage chronic predisposing anatomical changes.

Pain is an important aspect of HS. Several studies have previously demonstrated a significant reduction in quality of life (QoL), using Dermatology Life Quality Index (DLQI), among patients with HS (5, 6). In fact, a study found that the mean DLQI scores for patients with HS (8.9) were higher than previously reported for other skin diseases, such as alopecia (8.3), acne (7.5) and psoriasis (7.0) (6). The highest DLQI scores attained were predominantly attributed to soreness, embarrassment and level of HS-related pain, highlighting the role of HS-related pain in the everyday life of patients with HS.

The body of literature describing HS-related pain is small. Increased understanding of HS-related pain would aid dermatologists and other physicians in managing all aspects of HS, from the perspectives of both patients and physicians.

MATERIALS AND METHODS (see Appendix S1[1])

RESULTS

A total of 50 patients with HS were enrolled in the study, of whom 45 completed the 2 questionnaires; a response rate of 90%. The characteristics of the patients with HS are shown in Table SI[1].

Strikingly, 77% of patients used analgesics (Fig. 1), most frequently tramadol (37%) and paracetamol (31%). Morphine and tramadol resulted in the highest pain relief. In addition, there was a high level of use of milder analgesics, such as paracetamol and non-steroidal anti-inflammatory drugs (NSAID), both of which yielded a relatively low level of pain relief (Fig. 1). Although clindamycin ($n = 3$) and prednisolone ($n = 1$) are not usually categorized as analgesics, some patients considered them as pain medication. While clindamycin most likely offers no pain relief, systemic prednisolone may act as an analgesic (7).

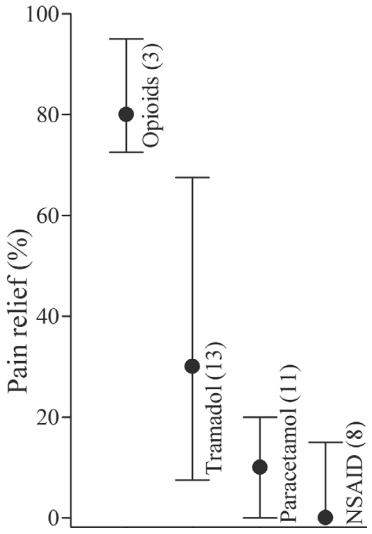

Fig. 1. Self-reported pain relief (%) by subscribed medicine. NSAID: non-steroidal anti-inflammatory drug. Data are presented as median (interquartile range). Numbers of patients are indicated in the parenthesis. Only one analgesic was indicated per patient.

No significant difference in median scores of the Brief Pain Inventory (BPI) or Hospital Anxiety and Depression (HAD) scale was detected between Hurley stage I or II patients. Conversely, Hurley stage III patients had more severe pain on all 4 time-related aspects (pain at its worst, least, average within the last 24 h, and at investigation) compared with Hurley stage I patients (Fig. 2 and Table SII[1]). No differences were detected between Hurley stage I, II and III patients with regard to HAD-A and HAD-D scores. However, all Hurley stage II patients were considered borderline or abnormal cases according to HAD-A and HAD-D, while Hurley score III patients were considered abnormal cases according to HAD-D (Table SII[1]).

Hurley stage III patients were more likely to experience pain interfering with daily activities, such as general activity, ability to work and quality of sleep, compared with Hurley stage I patients. Relationships with other people and enjoyment of life were also impaired (Table SII[1]).

[1]http://www.medicaljournals.se/acta/content/?doi=10.2340/00015555-2308

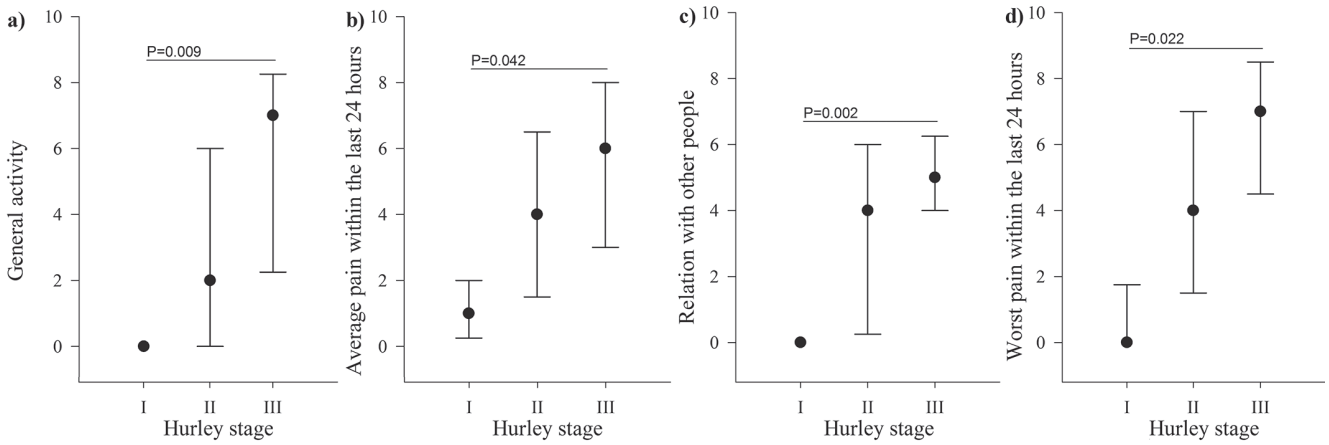

Fig. 2. Differences between Hurley stages I, II and III patients for: (a) daily general activity, (b) average pain within the last 24 h, (c) relationships with other people, and (d) worst. Data are presented as median (interquartile range) with *p*-values.

DISCUSSION

The extensive use of pain medicine in all degrees of severity of HS illustrates the major impact and consequences of HS-related pain. In particular, the use of morphine and tramadol, in combination with a poor effect of mild analgesics, may reflect undertreatment of HS-related pain and a desire to alleviate pain from the patient's point of view.

As expected, Hurley stage III patients had significantly more severe pain on all 4 time aspects compared with Hurley stage I patients, and were overall more likely to experience pain interfering with daily activities (Fig. 2 and Table SII[1]). The lack of significant difference between Hurley stage I and II may reflect low power due to small sample size, or simply similar pain levels in Hurley stage I and II, thus suggesting a possible weakness of the Hurley classification.

Considering the impact of HS-related pain, the literature investigating this topic is modest. One study found that post-HS-surgery pain ratings on an 11-point numerical rating scale ranged from 4/10 to 10/10, and described it further as burning, cutting or pressing soreness (8). HS-related pain may furthermore include complex regional pain syndrome, mechanical allodynia and hyperalgesia (8, 9).

It is well-established that patients with HS experience several comorbidities, e.g. depression and obesity (6), may further increase the perception of pain and may even be controbute risk factors for chronic pain (10–12). Although we did not detect any correlation between depression and Hurley stage, the majority of patients (74%) were classified as either a borderline or abnormal cases according to HAD-A and HAD-D (Table SII[1]). Whether chronic pain induces clinical depression or depression also initiates "psychosomatic" pain (through physiological mechanisms) is difficult to prove; however, the burden of illness increases when patients have both.

Comparison of our BPI results with other studies shows that Hurley stage II and III patients rate the overall median interference of pain with their daily activities at approximately the same level as do oncology outpatients (13). A large cross-sectional study that investigated pain intensity and its interference with daily activities among medical oncology patients found similar BPI ratings to our study (13).

It may be speculated that the intractable nature of HS may cause physicians to prioritize management of skin symptoms while underprioritizing pain management. Both patients and dermatologists may consider HS-related pain a non-dermatological problem. Thus, it may be advocated that routine HS consultations should address pain issues more aggressively in collaboration with medical pain specialists. BPI may aid dermatologists and other physicians in identifying patients with HS who require specific pain management plans.

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