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Presence of arthralgia exacerbates decreased quality of life in hidradenitis suppurativa patients

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Abstract

Hidradenitis suppurativa is characterized by chronic follicular occlusion that presents with recurrent nodules, inflamed abscesses, and scarring. Research has shown that these patients have a decreased quality of life. In addition to its psychosocial effects, hidradenitis suppurativa has recently been associated with joint pathology. In this study, we distributed a survey consisting of the Short Form 12 Health Survey, used for assessing health outcomes, along with additional questions about joint pain to an online hidradenitis suppurativa support group in order to understand the effect of comorbid arthralgia on quality of life in this disease. The respondents in this study had significantly reduced physical health composite scores-12 (PCS-12), (35.8 versus 50, $P < 0.001$) and mental health composite scores-12 (MCS-12), (33.7 versus 50, $P < 0.001$) scores compared to the general population. Additionally, patients reporting severe arthralgia had significantly lower PCS-12 (32.3 versus 36.5; $P < 0.05$) and MCS-12 (33.3 versus 40.5; $P < 0.001$) scores compared to those with mild arthralgia. Despite the effect of comorbid arthralgia on quality of life, only 11% reported having been asked about joint pain by their dermatologist. Routine screening questions concerning associated arthralgia and diminished quality of life may be helpful during clinician assessment and treatment of hidradenitis suppurativa patients.

Keywords: hidradenitis suppurativa, arthralgia, arthropathy, quality of life, SF-12, comorbidities

Introduction

Hidradenitis suppurativa (HS) is a skin condition characterized by chronic follicular occlusion located primarily in the axillary, groin, and perianal regions that can present with recurrent nodules, inflamed abscesses, and scarring [1]. The painful flare-ups and malodorous discharge can have a profoundly negative psychological impact on patients. Studies have consistently shown decreased quality of life among HS patients through measures such as the Dermatology Life Quality Index (DLQI), the Beck Depression Inventory (BDI), and the Patient Health Questionnaire-9 (PHQ-9), [2]. In addition, patients have associated comorbidities such as metabolic syndrome, inflammatory bowel disease, and depression [3]. The Short-Form-12 Health Survey (SF-12) is a rapid, effective way to assess health outcomes from the patient perspective. The SF-12 measures physical health composite scores (PCS-12) and mental health composite scores (MCS-12), in which the population mean of each score is 50 with standard deviation of 10. In addition to psychosocial effects, HS has recently been demonstrated to have an association with joint pathology (e.g., spondyloarthropathy), [4]. Estimates of the prevalence of arthropathy in HS

range from 3 to 67% [5]. In this study, we sought to understand the prevalence of arthropathy in patients with hidradenitis suppurativa and its effect on quality of life.

Methods

We distributed a survey consisting of the SF-12 along with supplemental questions about joint pain to an online group of HS patients. The mean PCS-12/MCS-12 of surveyed patients were compared to population means using a one-sample t-test. The mean PCS-12/MCS-12 of patients who reported having joint pain "rarely" or "sometimes" (i.e., mild arthralgia) were compared to those of patients who reported having joint pain "often" or "almost always" (i.e., severe arthralgia) using a two-sample t-test. This research involved the use of human subjects and was approved by the institutional review board.

Results

Of 1083 group members who viewed the survey posting, 228 participants began the survey, and 209 (19.3%) completed it. Survey respondents were predominantly female with a mean age of

37.2 years. The patients in this study had significantly reduced PCS-12 (35.8 versus 50, $P<0.001$) and MCS-12 (33.7 versus 50, $P<0.001$) scores compared to the general population (**Figure 1**). When asked about frequency of joint pain, 36.8% of respondents reported experiencing pain "almost always," 28.7% "often," 26.3% "sometimes," and 8.1% "rarely." Hidradenitis suppurativa patients with severe arthralgia had significantly lower PCS-12 (32.3 versus 36.5, $P<0.05$) and MCS-12 (33.3 versus 40.5, $P<0.001$) scores compared to those with mild arthralgia (**Figure 2**). Previously diagnosed joint disease was reported by 28.7% of respondents; only 11.0% reported having been asked about joint pain by their dermatologist.

Discussion

We identified a significant decrease in quality of life in HS patients that is worsened by the presence of concurrent arthralgia, which appears to be more prevalent in this population [6]. Limitations of this study include lack of clinical confirmation of disease and response bias

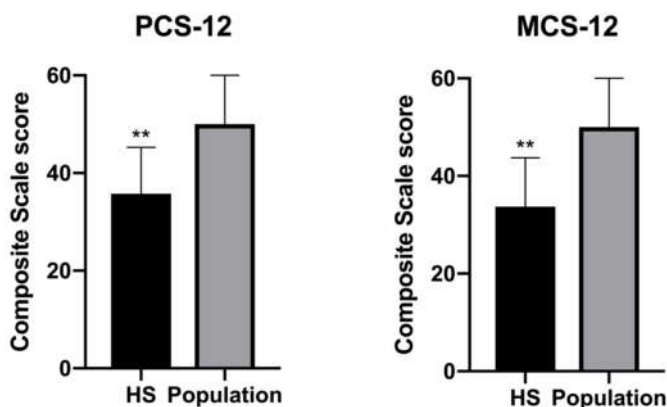


Figure 1. Physical health composite scores-12 (PCS-12) and mental health composite scores-12 (MCS-12) scores in hidradenitis suppurativa patients compared to the general population. Hidradenitis suppurativa patients scored significantly lower on PCS-12 and MCS-12 compared to the general population.

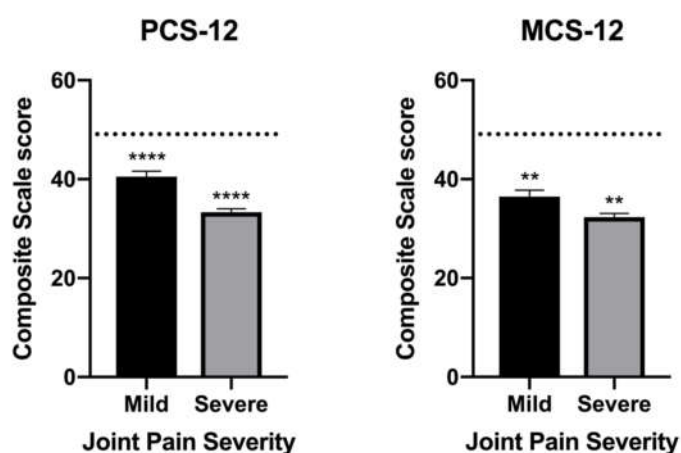


Figure 2. Physical health composite scores-12 (PCS-12) and mental health composite scores-12 (MCS-12) scores comparing hidradenitis suppurativa patients with mild and severe joint pain. Patients with severe arthralgia scored significantly lower in both PCS-12 and MCS-12 than those with mild joint pain.

inherent in survey research. Since the severity of disease in each patient could not be measured, it is unclear whether the relationship between concurrent arthralgia and decreased quality of life is directly related to joint pain or is an indicator of more severe disease and systemic inflammation. Regardless of etiology, the association between HS, arthralgia, and diminished quality of life suggests that dermatologists should be routinely screening HS patients for joint pathology. In this survey, despite most patients experiencing frequent arthralgias, only 11% reported ever being asked about joint pain by their dermatologist. Questions concerning associated arthralgia and diminished quality of life may be helpful during clinician assessment of disease

burden and may offer guidance in appropriate selection of treatment options.

Conclusion

Owing to the limited understanding of arthropathy in HS, there is a need for dermatologists to routinely ask about joint symptoms in HS patients, offer available therapeutics, or refer to a rheumatology consultant.

Potential conflicts of interest

Dr. Murina is a speaker for Abbvie, Celgene, Janssen and Novartis.

References

1. Prens E, Deckers I. Pathophysiology of hidradenitis suppurativa: an update. *J Am Acad Dermatol*. 2015;73:S8-11. [PMID: 26470623].
2. Gooderham M, Papp K. The psychosocial impact of hidradenitis suppurativa. *J Am Acad Dermatol*. 2015;73:S19-22. [PMID: 26470609].
3. Porter ML, Kimball AB. Comorbidities of hidradenitis suppurativa. *Semin Cutan Med Surg*. 2017; 36:55–57. [PMID: 28538744].
4. Schneider-Burrus S, Witte-Haendel E, Christou D, et al. High prevalence of back pain and axial spondyloarthritis in patients with hidradenitis suppurativa. *Dermatology*. 2016;232:606–12. [PMID: 27649417].
5. Kohorst JJ, Kimball AB, Davis MD. Systemic associations of hidradenitis suppurativa. *J Am Acad Dermatol*. 2015;73:S27-35. [PMID: 26470611].
6. Matusiak L, Bieniek A, Szepietowski JC. Hidradenitis suppurativa markedly decreases quality of life and professional activity. *J Am Acad Dermatol*. 2010;62:706-8. [PMID: 20227585].