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Brief report

Quality of life impairment in hidradenitis suppurativa: A study of 61 cases

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Objective

We sought to determine quality of life impairment in hidradenitis suppurativa.

Methods

Questionnaires were administered to 61 patients.

Results

Quality of life impact in hidradenitis was much greater than that of several other dermatologic conditions.

Limitation

This hospital-based population may not be representative.

Conclusion

Hidradenitis is one of the most distressing conditions observed in dermatology.

Abbreviations: ANOVA, analysis of variance; HS, hidradenitis suppurativa; NF1, neurofibromatosis 1; QoL, quality of life; SF-36, Short Form 36

Article Outline

Hidradenitis suppurativa (HS) is a chronically relapsing skin disorder characterized by recurring inflammatory lesions leading to fistulae and sclerosis of apocrine gland-bearing areas.[1] The impact of HS on quality of life (QoL) was found to be higher than that found in several other dermatologic conditions.[2], [3] and [4]

The aim of our study was to determine factors modulating QoL impact in HS and to compare it with other dermatologic conditions. For that purpose we used a combination of appropriate instruments, QoL questionnaires, a clinical grading system, and a visual analog scale for pain.

Methods

Physician-assessed clinical grading

In all, 61 consecutive patients referred to our specialized HS consultation service were prospectively evaluated by one of us (J. R.) during a period of 6 months. For each patient a case report form was completed including demographic characteristics, details of the course of the disease (eg, age at onset, continuous or intermittent disease), and details of the lesions. The outcome variables suggested by Sartorius et al[5] were used to quantify disease intensity. The score of Sartorius et al[5] was calculated, higher scores corresponding to more severe disease.

Ethical approval was obtained from the local ethics committee.

Patients' self-assessment

Pain at the moment of the consultation was measured using a visual analog scale.

Skin disease–specific QoL was measured using two questionnaires, VQ-Dermato[6] and Skindex-France.[7] For Skindex, higher scores indicate greater effects on QoL, and data on neurofibromatosis 1 are available in France.[7]

VQ-Dermato is a French QoL questionnaire.[6] For VQ-Dermato, lower scores indicate greater effect on QoL, and comparable data on chronic urticaria, psoriasis, and atopic dermatitis are available in the French population.[8]

General health QoL was measured using the French version of Short Form 36 (SF-36).[9] Lower scores indicate greater effects on QoL, and comparable data are available for a normative sample of the French population and for neurofibromatosis 1.

Patients filled out the questionnaires after the consultation.

Statistical analysis

Data were analyzed using software (SAS, Version 8.1, SAS Institute Inc, Cary, NC). For all tests, the risk was set to 0.05. The qualitative variables were expressed by frequency and

percentage, whereas quantitative data were presented by mean ± SD. Skindex-France, VQ-Dermato, and SF-36 were used to compare HS with normative sample or other diseases as data were available for these questionnaires in France.[7, 8 and 9] Skindex-France was used to analyze variables modulating QoL in HS. Correlation analyses were performed using Pearson's test for quantitative data and analysis of variance (ANOVA) for qualitative data.

Results

Study population

In all, 61 patients (47 women and 14 men) were included in our study. Their mean age was 37.8 ± 11.5 years. The score of Sartorius et al[5] was 25.1 ± 18.2 (range: 2-97). The self-reported disease duration was between 1 and 5 years for 11 patients, between 6 and 10 years for 21, between 11 and 19 years for 14, and more than 20 years for 13 (missing data: n = 2). A total of 28 patients had an intermittent disease and 27 had a continuous evolution (missing data: n = 6). The score of the visual analog scale for pain was 4.5 ± 2.4. Almost all patients had pelvic lesions (57 vs 4), and about two-thirds had axillary and/or submammary lesions (41 vs 20).

QoL scores

Table I summarizes the Skindex-France and VQ-Dermato scores of patients with HS compared with neurofibromatosis 1 and with other skin diseases (urticaria, psoriasis, atopic dermatitis). HS had significantly higher impact on QoL than neurofibromatosis 1 and other skin diseases (except for some dimensions) (Table I).

Table I.

Skin disease–specific quality of life measured with Skindex-France and VQ-Dermato in patients with hidradenitis suppurativa, neurofibromatosis 1, and other chronic diseases (chronic urticaria, psoriasis, atopic dermatitis)

	Score (mean ± SD)		
Skindex-France dimensions	**HS (n = 61)**	**NF1 (n = 128)**	**Student *t* test HS vs NF1**
Emotion	59.2 ± 23.4	31.6 ± 26.7	*P* < .0001
Symptoms	52.2 ± 22.3	21.4 ± 19.7	*P* < .0001
Function	48.8 ± 25.5	22.3 ± 23.3	*P* < .0001
	Score (mean ± SD)		
VQ-Dermato dimensions	**HS**	**Other skin diseases (n = 1161: chronic urticaria = 367; psoriasis = 408; atopic dermatitis = 386)**	**Student *t* test HS vs other skin diseases**
Self-perception	52.2 ± 26.7	32.4 ± 24.4	*P* < .0001
Daily living activities	46.9 ± 28.7	34.5 ± 28.9	*P* < .0001
Mood state	37.9 ± 26.4	48.5 ± 25.7	*P* < .0001
Social functioning	47.6 ± 29.7	34.0 ± 26.0	*P* < .01
Leisure activities	52.1 ± 31.3	51.6 ± 34.0	*P* = .92
Treatment-induced restriction	35.8 ± 34.0	33.7 ± 27.7	*P* = .64
Physical discomfort	66.1 ± 26.5	46.2 ± 30.8	*P* < .0001

HS, Hidradenitis suppurativa; *NF1*, neurofibromatosis 1.

Table II summarizes the SF-36 scores of patients with HS compared with a normative sample of the French population and with a cohort of patients with neurofibromatosis 1. The impact of HS was significantly greater that that of neurofibromatosis 1 for all SF-36 domains, with the exception of physical functioning.

Table II.

Quality of life of 61 patients with hidradenitis suppurativa measured by SF-36 compared with a cohort of 128 patients with NF1 and to a normative sample of 3656 subjects representative of the French population.

	Score (mean ± SD)			
SF-36 domains	**HS (n = 60)**	**NF1 (n = 128)**	**Normative sample (n = 3656)**	**HS vs NF1**
Physical function	71.3 ± 27.4	76.8 ± 26.4	84.5 ± 21.1	$P = .19$
Role-physical	43.6 ± 39.0	72.8 ± 39.1	81.3 ± 32.2	$P < .0001$
Bodily pain	44.5 ± 24.4	65.3 ± 29.6	73.5 ± 23.7	$P < .0001$
General health perception	43.3 ± 22.4	58.4 ± 23.0	69.2 ± 18.6	$P < .0001$
Vitality	40.4 ± 20.4	49.7 ± 21.3	60.1 ± 18.1	$P < .01$
Social functioning	52.5 ± 25.8	70.4 ± 25.7	81.6 ± 21.4	$P < .0001$
Role-emotional	42.9 ± 42.0	69.4 ± 39.4	82.2 ± 32.1	$P < .0001$
Mental health	43.0 ± 18.4	56.4 ± 22.0	68.5 ± 17.6	$P < .0001$

HS, Hidradenitis suppurativa; *NF1*, neurofibromatosis 1; *SF-36*, Short Form 36.

Factors modulating QoL in HS

The measure of QoL with VQ-Dermato, Skindex-France, and SF-36 in our patients was strongly correlated ($P < .05$, Pearson's correlation coefficient > 0.65). Skindex-France measures emotion, symptoms, and function, which were used to describe QoL. The severity of HS was correlated positively with symptoms ($P < .01$, Pearson's correlation coefficient = 0.44), the duration of HS with emotion (ANOVA, $P = .05$), and symptoms (ANOVA, $P = .006$). The age at disease onset correlated negatively with symptoms (ANOVA, $P = .02$) and functioning (ANOVA, $P = .05$). Pain correlated with emotions ($P < .05$, Pearson's correlation coefficient > 0.3), symptoms ($P = .001$, Pearson's correlation coefficient = 0.47), and function ($P = .001$, Pearson's correlation coefficient = 0.44). Patients with a continuous evolution of their disease were significantly more affected functionally than patients with an intermittent evolution (ANOVA, $P < .05$). Patients with associated pelvic and axillary and/or submammary lesions had a significantly higher impact on symptoms than others (57.6 ± 20.4 vs 40.9 ± 22.4, $P < .05$).

Discussion

Our findings are in agreement with previously published data confirming that HS has a significant impact on QoL.[2] and [3] The scores found for HS in our study showed much more impairment than those found in several other dermatologic conditions, including chronic urticaria, psoriasis, atopic dermatitis, and neurofibromatosis 1, all conditions traditionally regarded as causing significant disability.[7] and [8] Compared with these diseases, one can conclude that HS is a distressing condition for many patients, one of the worst that has been systematically studied in dermatology. A number of factors modulate this impact. Not surprisingly, the impact of HS on QoL correlates positively with the severity of the disease, its duration, pain, continuous evolution, and more involved locations. Secondly, it correlates negatively with the age of onset of the disease.[2] Indeed, if the correlation between disease duration and QoL is expected in a chronic disease, late-onset HS seems to have an overall better outcome, with a better chance of spontaneous recovery, than HS developing earlier in life. For example, older patients have fewer recurrences after simple surgical procedures.[10]

In conclusion, HS is a highly distressing condition compared with other dermatologic diseases. A subgroup of patients seems to be more severely affected: those with an early onset of their disease, long disease duration, and continuous evolution.

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