Patients with hidradenitis suppurativa have a high psychiatric disease burden: A Finnish nationwide registry study

Huilaja L¹, Tiri H¹, Jokelainen J^{2,3}, Timonen M³, Tasanen K¹

¹PEDEGO Research Unit, University of Oulu; Department of Dermatology and Medical Research Center Oulu, Oulu University Hospital, Oulu, Finland

²Unit of General Practice, Oulu University Hospital, Oulu, Finland

³Center for Life Course Epidemiology and Systems Medicine, University of Oulu, Oulu, Finland

INTRODUCTION

- Hidradenitis suppurativa (HS) is a chronic, recurrent inflammatory disease characterized by inflamed lesions in the apocrine gland-bearing areas of the skin, most commonly in the axillary, inguinal and anogenital regions (1).
- HS occurs more frequently in women than in men and has its peak prevalence among young adults (2,3)
- Patients with HS are known to have various comorbidities (4-6).
- In order to clarify the associations between HS and its psychiatric comorbidities at a national level, we conducted a nationwide retrospective study that included 4381 patients with HS and 39554 psoriasis and 43248 melanocytic nevi patients as controls. (Table 1)

RESULTS

- All the mental disorders studied were clearly more common in patients with HS than in those with psoriasis or melanocytic nevi.
- At least one mental disorder was diagnosed in 24.1% of HS patients compared with 19.1% of psoriasis patients (OR 1.34, 95% CI 1.24–1.46) and 13.5% of patients with melanocytic nevi (OR 2.04, 95% CI 1.88–2.22). (Table 2)

- Major depression was the most common mental disorder in all three groups. However, it was more common in the HS group than in the psoriasis group (15.3% vs. 12.1%, OR 1.31, 95% CI 1.19–1.44) and in the melanocytic nevi group (8.3%, OR 2.00, 95% CI 1.81–2.22).
- The total prevalence psychotic disorders was 4.7% in the HS group compared with 3.3% in the psoriasis group (OR 1.46, 95% CI 1.24–1.72) and 1.7% the melanocytic nevi group (2.74, 95% CI 2.29–3.28). Specifically, “schizophrenia or schizotypal disorder” was more frequent in the HS group than in patients with psoriasis (2.4% vs. 1.5%, OR 1.57, 95% CI 1.24–1.98) or in patients with melanocytic nevi (2.4% vs.0.7%, OR 3.38, 95% CI 2.59–4.39). (Table 2)

- All psychiatric disorders were more common in female than male patients with HS, with the exception of “schizophrenia or schizotypal disorder” (2.1% in women (OR: 1.36, 95% CI: 0.99–1.86) vs. 2.7% in men (OR: 1.88, 95% CI: 1.33–2.66)).
- In the gender-stratified analysis the association between HS and mental disorders was significantly stronger in men than in women (OR 1.46 in men vs. 1.28 in women, P=0.02). (Figure 1)

CONCLUSIONS

- Patients with HS have high psychiatric burden, even higher than patients with psoriasis
- Major depression was found in 15.3%, anxiety disorders in 6.9% and psychotic disorders in 4.7% of HS patients.
- Both “schizophrenia or schizotypal disorder” and “bipolar disorder or manic episodes” were significantly more frequent in the HS group than in control groups
- At the moment it is largely unknown why mental disorders are so common in patients with HS, but these diseases need to be taken into account when managing with HS patients.

Table 1 : Characteristics of patients in HS, psoriasis and melanocytic nevi (nevi) groups.

	HS	Psoriasis	Nevi
Patients			
N	4381	39554	43248
Age ¹	39.6 (±13.5)	49.6 (±17.6)	43.8(±20.0)
Women	58.7%	44.6%	63.8%
Non-matched patients			
N	36		
Matched patients (psoriasis/nevi)			
N ²	4337/4372	17318	17488
Age ¹	39.7 (±13.5)/39.6(±13.5)	41.6 (±15.2)	40.5(±15.7)
Women	58.4%/58.7%	58.4%	58.7%

¹Data given as mean ± standard deviation

²Age and gender matched in 1:4 ratio. 44 patients had fewer than 4 psoriasis controls

Table 2. Comorbidities in patients with HS (N=4337 for psoriasis and N=4372 for melanocytic nevi) vs. matched psoriasis (N=17318) and melanocytic nevi (N=17488) controls

Comorbidities	Group	N (%)	OR (95% CI)	OR (95% CI)
All psychiatric disorders	HS	1044 (24.1)	1.34 (1.24-1.46)	2.04 (1.88-2.22)
	Psoriasis	3315 (19.1)	Reference	
	Nevi	2366 (13.5)		Reference
All psychotic disorders	HS	203 (4.7)	1.46 (1.24-1.72)	2.74 (2.29-3.28)
	Psoriasis	566 (3.3)	Reference	
	Nevi	304 (1.7)		Reference
Schizophrenia or schizotypal disorder	HS	103 (2.4)	1.57 (1.24-1.98)	3.38 (2.59-4.39)
	Psoriasis	267 (1.5)	Reference	
	Nevi	124 (0.7)		Reference
Bipolar disorder or manic episodes	HS	135 (3.1)	1.81 (1.47-2.23)	2.82 (2.25-3.52)
	Psoriasis	301 (1.7)	Reference	
	Nevi	196 (1.1)		Reference
Major depression	HS	663 (15.3)	1.31 (1.19-1.44)	2.00 (1.81-2.22)
	Psoriasis	2099 (12.1)	Reference	
	Nevi	1462 (8.3)		Reference
Anxiety, dissociative, stress-related, somatoform and other nonpsychotic mental disorders	HS	484 (11.2)	1.30 (1.16-1.45)	1.68 (1.50-1.88)
	Psoriasis	1529 (8.8)	Reference	
	Nevi	1231 (7.0)		Reference
Anxiety disorders	HS	301 (6.9)	1.41 (1.23-1.62)	1.90 (1.65-2.19)
	Psoriasis	866 (5.0)	Reference	
	Nevi	666 (3.8)		Reference
Disorders of adult personality and behavior	HS	141 (3.3)	1.41 (1.16-1.71)	2.33 (1.88-2.87)
	Psoriasis	404 (2.3)	Reference	
	Nevi	248 (1.4)		Reference

Figure 1. Gender stratified odds ratios for psychiatric disorders in HS patients.

References

- Revuz J. Hidradenitis suppurativa. J Eur Acad Dermatol Venereol 2009; 23(9): 985-98.
- Alkhan A et al. Hidradenitis suppurativa: a comprehensive review. J Am Acad Dermatol 2009; 60(4): 604-610.
- Vinding GR et al. The prevalence of inverse recurrent suppurative: a population-based study of possible hidradenitis suppurativa. Br J Dermatol 2014;170(4): 884-9.
- Shavit E et al. Psychiatric comorbidities in 3207 patients with hidradenitis suppurativa. J Eur Acad Dermatol Venereol 2015; 29(2): 371-5.
- Shlyankovich J et al. Hidradenitis suppurativa is a systemic disease with substantial comorbidity burden: a chart-verified case-control analysis. J Am Acad Dermatol 2014; 71(6): 1144-50.
- Kohorst JJ et al. Systemic associations of hidradenitis suppurativa. J Am Acad Dermatol 2015; 73: S27-35.

Contact information

Laura Huilaja, MD, PhD
Clinical Research Center
Department of
Dermatology
Aapistie 5A
FI-90220 Oulu
Finland
E-mail: laura.huilaja@oulu.fi