

Functional, social and sexual impairments in psoriasis: a comparative study between patients with and without anogenital lesions

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INTRODUCTION & OBJECTIVES

The prevalence of isolated genital psoriasis has been estimated between 2-5%. However, a substantial portion of patients with different forms of psoriasis experience genital lesions at a certain time point of assessment (7-42%) and during the course of psoriasis (33-63% of psoriasis cases).

The involvement of the anogenital area results in additional psychosocial burden for the patients, particularly in terms of quality of life (QoL) impairments, depression, feelings of stigmatization, and sexual dysfunction.

Objectives:

- (1) to compare the clinical characteristics, as well as QoL, social and sexual impairments, between patients with psoriasis with and without lesions in the anogenital area;
- (2) to test the associations between clinical characteristics and patient-reported outcomes (PROs) of disease burden.

MATERIALS & METHODS

Study design and patient cohort

The study had a multicentre cross-sectional observational case-control design. Patients were consecutively recruited in 4 dermatological centers in Germany (Hamburg, Bonn, Bad Bentheim and Mainz) between April 2020 and October 2022.

Inclusion criteria:

- Male or female aged at least 18 years
- Diagnosis of any type of moderate to severe psoriasis
- Ability to complete the questionnaires in German language
- Signed Informed Consent Form (ICF)

Exclusion criteria:

- Any comorbid condition which would place the subject at unacceptable risk participating in the study or confound the interpretability of study results

Measures

Clinician-reported outcomes:

- Psoriasis Area and Severity Index (PASI; range 0 – 72 [max. severity])
- Static Physician's Global Assessment of Genitalia (sPGA-G; range 0 [clear] – 5 [very severe])

Patient-reported outcomes:

- Intensity of symptoms of itching, burning and pain (NRS 0-10)
- Genital Psoriasis Sexual Frequency Questionnaire (GenPS-SFQ): sexual frequency & limitation in sexual activity
- Dermatology Life Quality Index (DLQI; range 0 [not at all] – 30 [very])
- Perceived Stigmatization Questionnaire (PSQ; range 0 [never] – 4 [always])
- Relationship and Sexuality Scale (RSS; range 0 – 36 [max. sexual impairment])

RESULTS

Comparison of patients' characteristics and disease burden between groups with and without anogenital involvement

Participants were 320 patients with psoriasis: 161 cases with anogenital lesions and 159 controls without anogenital involvement (sPGA-G ≤1).

Patients with anogenital psoriasis had higher disease severity, more intense symptoms of pain, itching and burning, and more comorbidities. However, they were less often treated with biological systemic therapy. They reported more limitations in sexual activity because of psoriasis, as well as more QoL, social and sexual impairments.

Table 1 | Comparison of socio-demographic characteristics, clinical features and patient-reported symptoms and outcomes between patients with psoriasis with and without anogenital involvement.

	No anogenital involvement (n = 159)	Anogenital psoriasis (n = 161)	χ ² / t
Socio-demographic characteristics			
Age (years), M ± SD	42.48 ± 14.61	42.73 ± 13.43	-0.16
Gender, n (%)			0.99
Male	111 (69.8%)	104 (64.6%)	
Female	48 (30.2%)	57 (35.4%)	
Clinical features			
Disease severity [PASI], M ± SD	2.55 ± 4.60	7.57 ± 6.88	-7.66***
Disease duration (years), M ± SD	19.70 ± 14.00	18.73 ± 13.78	0.62
Treatment, n (%)			
Biologic	119 (74.8%)	72 (44.7%)	30.17***
Conventional systemic	19 (11.9%)	41 (25.5%)	9.59**
Topical	67 (42.1%)	106 (65.8%)	18.09***
Phototherapy	5 (3.1%)	31 (19.3%)	20.79***
Other	6 (3.8%)	6 (3.7%)	0.00
None	1 (0.6%)	4 (2.5%)	1.79
Comorbidities (yes), n (%)	73 (45.9%)	100 (62.1%)	8.45**
Patient-reported symptoms and outcomes			
Intensity of pain (NRS), M ± SD	1.20 ± 2.10	3.51 ± 2.99	-7.96***
Intensity of itching (NRS), M ± SD	2.40 ± 2.83	5.57 ± 2.85	-9.96***
Intensity of burning (NRS), M ± SD	1.65 ± 2.50	4.14 ± 3.13	-7.83***
Sexual frequency [GenPS-SFQ item 1] ^a , n (%)			2.53
None/zero	52 (32.7%)	70 (43.5%)	
Once, two or more	92 (57.9%)	85 (52.8%)	
Missing	15 (9.4%)	6 (3.7%)	
Limitation in sexual activity [GenPS-SFQ item 2] ^b , n (%)			42.51***
Never/rarely	125 (78.6%)	82 (50.9%)	
Sometimes/ often/ always	17 (10.7%)	72 (44.7%)	
Missing	17 (10.7%)	7 (4.3%)	
QoL impairments [DLQI], M ± SD	4.09 ± 5.65	10.79 ± 7.28	-9.14***
Perceived stigmatization [PSQ], M ± SD	0.90 ± 0.59	1.14 ± 0.62	-3.55***
Sexual impairments [RSS], M ± SD	14.57 ± 5.36	18.94 ± 6.47	-6.36***

^a In the past week, how many times did you engage in sexual activity?; ^b In the past week, how often did your genital psoriasis limit the frequency of your sexual activity?
 Chi-square tests for categorical variables/ independent samples t-tests for continuous variables.
^{*}p < 0.05; ^{**}p < 0.01; ^{***}p < 0.001, two-tailed.

Associations between clinical characteristics and patient-reported outcomes (PROs) of disease burden

Higher disease severity, involvement of the anogenital area, comorbidities, more intense symptoms of itching and burning, and frequent limitations in sexual activity explained 67% of the variance in QoL impairments. Higher disease severity and frequent limitations in sexual activity also explained 24% of the variance in perceived stigmatization. 54% of the variance in sexual impairments were explained by older age, higher disease severity, topical treatment, anogenital involvement, absence of sexual activity and more limitations in sexual activity.

Table 2 | Regression analyses explaining the variance in QoL, social and sexual impairments.

	QoL impairments [DLQI]		Perceived stigmatization [PSQ]		Sexual impairments [RSS]	
	β	t	β	t	β	t
Step 1: Socio-demographic characteristics						
	ΔR ² < 0.01		ΔR ² = 0.01		ΔR ² = 0.02	
	ΔF _{2,280} = 0.44		ΔF _{2,277} = 0.68		ΔF _{2,274} = 2.35	
Age	< -0.01	-0.03	-0.07	-1.12	0.12	2.07*
Gender ^a	0.06	0.93	0.01	0.20	0.05	0.85
Step 2: Clinical features						
	ΔR ² = 0.39		ΔR ² = 0.16		ΔR ² = 0.20	
	ΔF _{8,272} = 21.90***		ΔF _{8,269} = 6.18***		ΔF _{8,266} = 8.72***	
Disease severity	0.40	7.36***	0.32	4.92***	0.28	4.46***
Disease duration (years)	-0.04	-0.71	0.11	1.65	-0.08	-1.17
Biologic treatment ^b	-0.05	-0.89	0.03	0.49	0.10	1.47
Conventional systemic treatment ^b	0.08	1.50	-0.06	-1.01	-0.05	-0.80
Topical treatment ^b	0.05	0.94	-0.01	-0.13	0.15	2.44*
Phototherapy ^b	0.02	0.30	0.07	1.21	-0.03	-0.55
Anogenital involvement ^b	0.22	3.99***	0.09	1.40	0.23	3.66***
Comorbidities ^b	0.14	2.73**	0.04	0.57	0.05	0.79
Step 3: Patient-reported symptoms						
	ΔR ² = 0.28		ΔR ² = 0.08		ΔR ² = 0.32	
	ΔF _{5,267} = 44.93***		ΔF _{5,264} = 5.50***		ΔF _{5,261} = 35.49***	
Intensity of pain	0.06	1.05	0.01	0.15	-0.01	-0.09
Intensity of itching	0.19	2.76**	0.05	0.44	0.14	1.64
Intensity of burning	0.31	4.55***	0.15	1.38	0.01	0.05
Sexual frequency [GenPS-SFQ item 1] ^c	-0.05	-1.45	-0.01	-0.25	-0.42	-9.56***
Limitation in sexual activity [GenPS-SFQ item 2] ^d	0.23	5.49***	0.22	3.45**	0.37	7.55***
Model summary						
	R ² = 0.67		R ² = 0.24		R ² = 0.54	
	F _{15,267} = 36.26***		F _{15,264} = 5.52***		F _{15,261} = 20.13***	

^a 0 = male, 1 = female; ^b 0 = no, 1 = yes; ^c 0 = none/zero, 1 = once, two or more; ^d 0 = never/rarely, 1 = sometimes/ often/ always.
 Hierarchical linear regression analyses. *p < 0.05; **p < 0.01; ***p < 0.001, two-tailed.

DISCUSSION

The burden of psoriasis resulting from clinical severity, but also from the functional, social and sexual impairments, was higher in patients with anogenital psoriasis.

These findings suggest that treatment focused only on the clearance of the anogenital skin might be insufficient to improve the psychosocial and sexual functioning of these patients. Instead, comprehensive patient-centered healthcare should include psychosocial assessment and intervention, in order to improve patients' overall health.

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