

Title: Impact of Chronic Nodular Prurigo on Quality of Life: A Systematic Review of the Literature

Authors: Pedro Herranz Pinto, M.D.¹, Bibiana Pérez García, M.D.², Victoria Bonne Moreno, M.D.³, Beky Norela Ortiz, M.D.³, Héctor David De Paz Fernández, Ph. D.⁴, Luis Lizán, M.D.⁴

Author affiliations: ¹Department of Dermatology, La Paz University Hospital, Madrid - Spain, ²Department of Dermatology, Ramón y Cajal University Hospital, Madrid – Spain, ³Galderma S.A., Madrid – Spain, ⁴Outcomes ´ 10-A ProductLife Group Company, Castellón – Spain

Corresponding author:

Pedro Herranz Pinto

Department of Dermatology, La Paz University Hospital, 28046 Madrid – Spain
+34620983133

Email: pherranzp@gmail.com

Supplemental Online Content

Table S1. PRISMA checklist

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	Page 1
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	Pages 2, 3
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	Page 5
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	Pages 5, 6
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	Page 6
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	Page 6
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	Page 6; Table S2, Table S3
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	Pages 6, 7
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	Page 7
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	Table S4
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	Table S4
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	Pages 6, 7

Section and Topic	Item #	Checklist item	Location where item is reported
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	Table S4
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	Table S4
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	Page 7
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	N/A
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	N/A
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	N/A
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	N/A
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	-
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	N/A
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	Page 8; Figure 1
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	Page 8; Figure 1
Study characteristics	17	Cite each included study and present its characteristics.	Page 8; Table S4
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	-
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	Page 8-15; Tables 1-5; Tables S4 and S5; Figure 2
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	Page 8-15
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	N/A

Section and Topic	Item #	Checklist item	Location where item is reported
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	N/A
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	N/A
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	N/A
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	N/A
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	Pages 15-17
	23b	Discuss any limitations of the evidence included in the review.	Page 17
	23c	Discuss any limitations of the review processes used.	Page 17
	23d	Discuss implications of the results for practice, policy, and future research.	Pages 15-17
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	-
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	Page 19
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	N/A
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	Page 18
Competing interests	26	Declare any competing interests of review authors.	Page 19
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	Page 19

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71. This work is licensed under CC BY 4.0. To view a copy of this license, visit <https://creativecommons.org/licenses/by/4.0/>

Table S2. MEDLINE/Pubmed search terms and strategy

Terms related to the disease

- #1 Prurigo [MeSH]
- #2 Prurigo [tiab]
- #3 Prurigo nodularis [tiab]
- #4 Chronic nodular prurigo [MeSH]
- #5 Chronic nodular prurigo [tiab]

Terms related to the impact of the disease on HRQoL

- #6 Global burden of disease [MeSH]
- #7 Global burden of disease [tiab]
- #8 Humanistic burden [tiab]
- #9 Burden of disease [tiab]
- #10 Disease-related burden [tiab]
- #11 Illness Burden [tiab]
- #12 Symptom burden [MeSH]
- #13 Symptom burden [tiab]
- #14 Prurito [tiab]
- #15 Impact [tiab]
- #16 Quality of life [MeSH]
- #17 Quality of life [tiab]
- #18 QoL [tiab]
- #19 Life quality [tiab]
- #20 Health related quality of life [tiab]
- #21 HRQOL [tiab]
- #22 Patient-Reported Outcome Measures [tiab]
- #23 Health status [tiab]

#24	Patient satisfaction [MeSH]
#25	Satisfaction [tiab]
#26	Comorbidity [MeSH]
#27	Comorbidit* [tiab]
#28	Disease attributes [MeSH]
#29	Disease attributes [tiab]
#30	Patient perspectives [tiab]
#31	Psychosocial impact [tiab]
#32	Emotional impact [tiab]
#33	Emotional exhaustion [tiab]
#34	Emotional wellbeing [tiab]
#35	Social impact [tiab]
#36	Sexual impact [tiab]
#37	Work impact [tiab]
#38	Perceived [tiab]
#39	Patient sign* [tiab]
#40	EQ-5D [tiab]
#41	DLQI [tiab]
#42	Dermatology Life Quality Index [tiab]
#43	VAS [tiab]
#44	Visual analogue scale [tiab]
#45	HADS [tiab]
#46	Hospital Anxiety and Depression Scale [tiab]
#47	Sleep-NRS [tiab]
#48	Sleep Numeric Rating Scale [tiab]
#49	Pruritus Numeric Rating Scale [tiab]
#50	Pruritus-NRS [tiab]

- #51 Itch NRS [tiab]
- #52 WPAI-AD
- #53 Work Productivity and Activity Impairment – Atopic Dermatitis [tiab]
- #54 IGA
- #55 Investigator Global Assessment [tiab]
- #56 PCT [tiab]
- #57 Prurigo Control Test [tiab]
- #58 ItchyQoL [tiab]

((OR #1-#5) AND (OR #6-#58))

((("Prurigo"[Mesh]) OR ("prurigo"[Title/Abstract]) OR ("prurigo nodularis"[Title/Abstract]) OR ("Chronic nodular prurigo"[Mesh]) OR ("Chronic nodular prurigo"[Title/Abstract])) AND (("Global Burden of Disease"[Mesh]) OR ("global burden of disease"[Title/Abstract]) OR ("humanistic burden"[Title/Abstract]) OR ("burden of disease"[Title/Abstract]) OR ("disease-related burden"[Title/Abstract]) OR ("Illness Burden"[Title/Abstract]) OR ("Symptom Burden"[Mesh]) OR ("Symptom Burden"[Title/Abstract]) OR ("prurito"[Title/Abstract]) OR ("impact"[Title/Abstract]) OR ("Quality of Life"[Mesh]) OR ("quality of life"[Title/Abstract]) OR ("QoL"[Title/Abstract]) OR ("Life Quality"[Title/Abstract]) OR ("Health Related Quality Of Life"[Title/Abstract]) OR ("HRQOL"[Title/Abstract]) OR ("Patient-Reported Outcomes Measures"[Title/Abstract]) OR ("Health Status"[Title/Abstract]) OR ("Patient Satisfaction"[MeSH Terms]) OR ("Satisfaction"[Title/Abstract]) OR ("Comorbidity"[Mesh]) OR ("comorbidit*" [Title/Abstract]) OR ("Disease Attributes"[Mesh]) OR ("disease attributes"[Title/Abstract]) OR ("patient perspectives"[Title/Abstract]) OR ("psychosocial impact"[Title/Abstract]) OR ("emotional impact"[Title/Abstract]) OR ("emotional exhaustion"[Title/Abstract]) OR ("emotional wellbeing"[Title/Abstract]) OR ("social impact"[Title/Abstract]) OR ("sexual impact"[Title/Abstract]) OR ("work impact"[Title/Abstract]) OR ("perceived"[Title/Abstract]) OR ("Patient Sign*" [Title/Abstract]) OR ("EQ-5D"[Title/Abstract]) OR ("DLQI"[Title/Abstract]) OR ("Dermatology Life Quality Index"[Title/Abstract]) OR ("VAS"[Title/Abstract]) OR ("Visual analogue scale"[Title/Abstract]) OR ("HADS"[Title/Abstract]) OR ("Hospital Anxiety and Depression Scale"[Title/Abstract]) OR ("sleep-NRS"[Title/Abstract]) OR ("Sleep Numeric Rating Scale"[Title/Abstract]) OR ("Pruritus Numeric Rating Scale"[Title/Abstract]) OR ("Pruritus-NRS"[Title/Abstract]) OR ("Itch NRS"[Title/Abstract]) OR ("WPAI-AD"[Title/Abstract]) OR ("Work Productivity and Activity Impairment – Atopic Dermatitis"[Title/Abstract]) OR ("IGA"[Title/Abstract]) OR ("Investigator Global Assessment"[Title/Abstract]) OR ("PCT"[Title/Abstract]) OR ("Prurigo Control Test"[Title/Abstract]) OR ("ItchyQoL"[Title/Abstract]))))

Table S3. Cochrane search terms and strategy

Terms related to the disease

- #1 Prurigo
- #2 Prurigo nodularis
- #3 Chronic nodular prurigo

Terms related to the impact of the disease on HRQoL

- #4 Global burden of disease
- #5 Humanistic burden
- #6 Burden of disease
- #7 Disease-related burden
- #8 Illness Burden
- #9 Symptom burden
- #10 Prurito
- #11 Impact
- #12 Quality of life
- #13 QoL
- #14 Life quality
- #15 Health-related quality of life
- #16 HRQOL
- #17 Patient-Reported Outcome Measures
- #18 Health status
- #19 Patient satisfaction
- #20 Satisfaction
- #21 Comorbidit*
- #22 Disease attributes
- #23 Patient perspectives
- #24 Psychosocial impact

#25	Emotional impact
#26	Emotional exhaustion
#27	Emotional wellbeing
#28	Social impact
#29	Sexual impact
#30	Work impact
#31	Perceived
#32	Patient sign*
#33	EQ-5D
#34	DLQI
#35	Dermatology Life Quality Index
#36	VAS
#37	Visual analogue scale
#38	HADS
#39	Hospital Anxiety and Depression Scale
#40	Sleep-NRS
#41	Sleep Numeric Rating Scale
#42	Pruritus Numeric Rating Scale
#43	Pruritus-NRS
#44	Itch NRS
#45	WPAI-AD
#46	Work Productivity and Activity Impairment – Atopic Dermatitis
#47	IGA
#48	Investigator Global Assessment
#49	PCT
#50	Prurigo Control Test
#51	ItchyQoL

((OR #1-#3) AND (OR #4-#51))

("Prurigo" OR "prurigo nodularis" OR "Chronic nodular prurigo") AND ("Global Burden of Disease" OR "humanistic burden" OR "burden of disease" OR "disease-related burden" OR "Illness Burden" OR "Symptom Burden" OR "prurito" OR "impact" OR "quality of life" OR "QoL" OR "Life Quality" OR "Health Related Quality Of Life" OR "HRQOL" OR "Patient-Reported Outcomes Measures" OR "Health Status" OR "Patient Satisfaction" OR "Satisfaction" OR "comorbidit*" OR "Disease Attributes" OR "patient perspectives" OR "psychosocial impact" OR "emotional impact" OR "emotional exhaustion" OR "emotional wellbeing" OR "social impact" OR "sexual impact" OR "work impact" OR "perceived" OR "Patient Sign*" OR "EQ-5D" OR "DLQI" OR "Dermatology Life Quality Index" OR "VAS" OR "Visual analogue scale" OR "HADS" OR "Hospital Anxiety and Depression Scale" OR "sleep-NRS" OR "Sleep Numeric Rating Scale" OR "Pruritus Numeric Rating Scale" OR "Pruritus-NRS" OR "Itch NRS" OR "WPAI-AD" OR "Work Productivity and Activity Impairment – Atopic Dermatitis" OR "IGA" OR "Investigator Global Assessment" OR "PCT" OR "Prurigo Control Test" OR "ItchyQoL"))

Table S4. Study characteristics

Author (year)	Country	Study design	Population	N	Age, years‡	Sex, N (%)	Outcome assessed	Tool used
Aggarwal, P. et al. (2021) ³¹	USA	R	CNPG	171	52.3 ± 13.2	• W 159 (93.0) • M 11 (6.4)	• Sociodemographic characteristics • Comorbidities • Itch characteristics • Symptoms • Impact of symptoms/CNPG	• DLQI • 5D-Itch • PSQI
Brenaut, E. et al. (2018) ¹³	13 European countries	T	CNPG	C: 1359 CNPG: 27	• C 41.1 ± 13.6 • CNPG 58.6 ± 15.1	C • W 903 (66.6) • M 456 (33.3) CNPG • W 10 (37.0) • M 17 (63.0)	• Sociodemographic characteristics • Comorbidities • Stressful events in the past 6 months • Itch characteristics • Symptoms • Impact of symptoms/CNPG	• EQ-5D • DLQI • HADS • Suicidal Ideation Questionnaire.
D´Amiano, A. et al. (2025) ²⁵	USA	P	CNPG	23	58.8 (23-68)	• W 12 (52.2) • M 11 (47.8)	• Sociodemographic characteristics • Comorbidities • Impact of symptoms/CNPG	Worst Itch-NRS
Dhawan, L. et al. (2018) ³⁰	India	T	CNPG	50	36.4 ± 12.9	• W 29 (58.0) • M 21 (42.0)	• Sociodemographic characteristics • Comorbidities • Impact of symptoms/CNPG	• DLQI • PHQ-9/ PHQ-2 / PHQ-4
Erdem, Y. et al. (2021) ²²	Turkey	P	CNPG	C: 41 CP: 41 CNPG: 8	• C 38.5 ± 11.7 • CP 41.8 ± 14.7	C • W 6 (63.4) • M 15 (36.6) CP • W 32 (78.0)	• Sociodemographic characteristics • Impact of symptoms/CNPG	• VAS • PSQI • BDI

- M 9 (22.0)

Ficheux, AS. et al. (2025)¹⁴	17 European countries	T	CNPG	C: 2808 CNPG: 127	• C 43.1 ± 15.6 • CNPG 54.7 ± 15.0	C • W 1877 (67.0) • M 924 (33.0) CNPG • W 75 (59.1) • M 52 (40.9)	• Sociodemographic characteristics • Stressful events in the past 6 months • Comorbidities • Itch characteristics • Symptoms • Impact of symptoms/CNPG	• EQ-5D • 5-PLQ • Itch-NRS • PSS-10 • PSQ • GAD-2 • PHQ-2 / PHQ-4 • DCQ
Gründel, S. et al. (2020)³⁸	Germany	R	CP y CNPG	CP: 325 CNPG: 325	• CP 59.9 (11.9–89.0) • CNPG 62.2 (12.1–90.1)	CP • W 203 (62.5) • M 122 (37.5) CNPG • W 203 (62.5) • M 122 (37.5)	• Sociodemographic characteristics • Stressful events in the past 6 months • Comorbidities • Itch characteristics • Symptoms • Impact of symptoms/CNPG	• DLQI • VAS • HADS
Gwillim, EC. et al. (2021)²⁸	USA	T	CNPG	39	66 (38–85)	• W 29 (74.4) • M 10 (26.6)	• Sociodemographic characteristics • Itch characteristics • Symptoms • Impact of symptoms/CNPG	• Itch-NRS • ItchyQoL
Murota, H. et al. (2024)¹⁵	Japan	T	CNPG	97	51 (23-78)	• W 40 (41.2) • M 54 (55.7) • Unknown 3 (3.1)	• Sociodemographic characteristics • Comorbidities • Itch characteristics • Impact of symptoms/CNPG	• GQ • SF-8 • DLQI • Itch-NRS • Burning-sensation-NRS

								• Sleep-NRS • WPAI-AD • PHQ-9 • TSQM-9
Pereira, MP. et al. (2020)²⁴	Some European Countries	P	CNPG	509	64 (52-72)	• W 299 (59.7) • M 210 (41.3)	• Sociodemographic characteristics • Comorbidities • Itch characteristics • Symptoms • Impact of symptoms/CNPG	• 5-PLQ • NRS • VRS
Pereira, MP. et al. (2021)³³	Some European Countries	P	CNPG	509	63 (51–71)	• W 251 (61.8) • M 155 (38.2)	• Sociodemographic characteristics • Symptoms • Unmet needs from the patient's perspective	Not mentioned
Rodriguez, D. et al. (2023)¹⁶	USA	T	CNPG	21	53.1 ± 11.8	• W 15 (71.0) • M 6 (29.0)	• Sociodemographic characteristics • Itch characteristics • Symptoms • Impact of symptoms/CNPG	Not mentioned
Sampogna, F. et al. (2017)²⁶	13 European Countries	T	VDC	3485	-	-	• Impact of symptoms/CNPG	DLQI
Sampogna, F. et al. (2020)²⁹	13 European Countries	T	VDC	C: 1416 VDC: 3509	-	-	• Impact of symptoms/CNPG	EQ-5D
Ständer, S. et al. (2023)¹⁷	USA	\$	CNPG	21	53.1 (27-76)	• W 15 (71.0) • M 6 (29.0)	• Sociodemographic characteristics • Symptoms • Impact of symptoms/CNPG • Unmet needs from the patient's perspective	SD-NRS

Steinke, S. et al. (2018) ³⁹	9 European Countries	T	CNPG	69	• Total 1.5 ± 18.2 • CNPG 59.4 ± 18.0	Total • W 314 (56.9) • M 234 (42.4)	• Sociodemographic characteristics • Itch characteristics • Symptoms • Impact of symptoms/CNPG	• DLQI • ItchyQoL • Itch-NRS • VAS
Sutaria, N. et al. (2022) ¹⁸	USA	#	CNPG	C: 15 CNPG: 20	• C 51.9 ± 14.1 • CNPG 54.1 ± 14.9		• Sociodemographic characteristics • Impact of symptoms/CNPG	• DLQI • Worst Itch-NRS • BDI
Taghaddos, D. et al. (2024) ⁴⁰	Canada	R	CNPG	81	52.8 ± 11.2	• W 46 (57.0) • M 35 (43.0)	• Sociodemographic characteristics • Comorbidities • Itch characteristics • Symptoms • Impact of symptoms/CNPG	Not mentioned
Todberg, T. et al. (2020) ²¹	Denmark	R	CNPG	52	64.4 ± 11.0	• W 35 (67.3) • M 17 (32.7)	• Sociodemographic characteristics • Comorbidities • Itch characteristics • Symptoms • Impact of symptoms/CNPG	• DLQI • VAS • PSQI
Whang, KA. et al. (2022) ²³	USA and Canada	P	CNPG	C: 4187 CNPG: 36	• C 48.9 ± 0.3 • CNPG 56.3 ± 2.7	C • W 2372 (56.7) • M 1815 (43.3) CNPG • W 27 (75.0) • M 9 (25.0)	• Sociodemographic characteristics • Comorbidities • Impact of symptoms/CNPG	Not mentioned
Yin, M. et al. (2023) ¹⁹	China	R	CNPG	759	44.3 ± 19.7	• W 334 (44.0) • M 425 (56.0)	• Sociodemographic characteristics • Comorbidities • Impact of symptoms/CNPG	• DLQI • Peak-NRS • HADS

Zeidler, C. et al. (2021) ²⁷	Germany	R	CNPG	908	64.3 (62.8-65.8)	• W 565 (62.2) • M 343 (37.8)	• Sociodemographic characteristics • Itch characteristics • Impact of symptoms/CNPG	• DLQI • Itch-NRS • AI-NRS • Worst Itch-NRS • HADS
Zeidler, C. et al. II (2021) ³²	Germany	R	CPG y CNPG	CPG: 4484 CNPG:3 139 CP-NL: 2773	-	CPG • W 1083 (63.3) • M 628 (36.7) CP-NL • W 1447 (52.2) • M 1326 (47.8)	• Sociodemographic characteristics • Comorbidities • Itch characteristics • Symptoms • Impact of symptoms/CNPG	• ItchyQoL • Itch-NRS • AI-NRS • Worst Itch-NRS • VAS • HADS • PNQ

5-PLQ: 5- Pruritus Life Quality questionnaire; **AI-NRS:** average itch Numeric Rating Scale; **BDI:** Beck's Depression Inventory; **Burning sensation-NRS:** burning sensation Numeric Rating Scale; **C:** control (healthy); **HRQoL:** Health-Related Quality of Life; **VDC:** various dermatological conditions; **DCQ:** Dysmorphic Concern Questionnaire; **DLQI:** Dermatology Life Quality Index; **EQ-5D:** EuroQoL 5D; **GAD-2:** Generalized Anxiety Disorder Scale-2; **GQ:** Global Question; **M:** men; **HADS:** Hospital Anxiety and Depression Scale; **Itch-NRS:** Itch Numeric Rating Scale; **ItchyQoL:** Itchy Quality of Life Questionnaire; **W:** women; **NRS:** Numeric Rating Scale; **P:** prospective; **CP:** Chronic Pruritus; **CP-NL:** Chronic Pruritus on Non-Lesional Skin; **CPG:** Chronic Prurigo; **CNPG:** Chronic Nodular Prurigo; **Peak-NRS:** Peak Itch Numeric Rating Scale; **Peak pruritus-NRS:** peak Numeric Rating Scale; **PHQ:** Patient Health Questionnaire; **PNQ:** Patient Needs Questionnaire; **PROMs:** Patient-Reported Outcomes Measures; **PSQ:** Perceived Stigmatization Questionnaire; **PSQI:** Pittsburgh Sleep Quality Index; **PSS-10:** Perceived Stress Scale; **R:** retrospective; **SD-NRS:** SD Numeric Rating Scale; **SF-8:** 8-item Short-Form Health Survey; **sleep-NRS:** sleep Numeric Rating Scale; **T:** transversal; **TSQM-9:** Treatment Satisfaction Questionnaire for Medication 9; **VAS:** Visual Analogue Scale; **VRS:** Verbal Rating Scale; **Worst Itch-NRS:** Worst Itch Numeric Rating Scale; **WPAI-AD:** Work Productivity and Activity Impairment – Atopic Dermatitis; **\$:** Cross-sectional qualitative and interventional quantitative (randomized clinical trial, phase 2); **#:** Mixed: prospective observational and retrospective data analysis; **‡:** Age represented as mean ± SD or median (range).

Table S5. Impact of CNPG on HRQoL

Domain (No. of articles)		Assessment method	No. of studies	References
General HRQoL; n=13		EQ-5D	2	13, 14
		DLQI	10	13, 15, 19, 22, 26- 28, 36, 37, 40
		% patients	2	17, 19
		% patients	3	16, 21, 25
Personal relationships; n=5	Sexual	DLQI (item 9)	1	26
		% patients	1	16
Occupational; n=4		WPAI	1	15
		% patients	3	16, 19, 20
Symptoms or Physical; n=10	Physical	SF-8	1	15
	Pain	EQ-5D	1	29
	Sleep disturbance	PSQI	3	21, 22, 31
		Sleep-NRS	2	15, 17
		SD-NRS	1	17
		% patients	5	16, 17, 24, 25, 32
Daily activities; n=2		% patients	2	16, 24
Emotional/Mental; n=15	Mood disturbance	% patients	1	16
	Embarrassment/Self- consciousness	DCQ	1	14
		% patients	2	16, 25
	Stigmatization	PSQ	1	14
	Stress	PSS -10	1	14
		% patients	2	25, 28
	Emotional in general	SF-8	1	15
	Anxiety	HADS	4	13, 27, 32, 38
		GAD-2	1	14
		% patients	4	13, 19, 25, 31
	Depressed	HADS	4	13, 27, 32, 38
		PHQ	3	14, 15, 30
		BDI	2	18, 22

	% patients	6	13, 16, 19, 24, 25, 31
Suicidal ideation	% patients	2	13, 25

BDI: Beck's Depression Inventory; **DLQI:** Dermatology Life Quality Index; **DCQ:** Dysmorphic Concern Questionnaire; **EQ-5D:** EuroQoL 5D; **GAD-2:** Generalized Anxiety Disorder Scale-2; **HADS:** Hospital Anxiety and Depression Scale; **HRQoL:** health-related quality of life; **PHQ:** Patient Health Questionnaire; **PROMs:** Patient-Reported Outcomes Measures; **PSQ:** Perceived Stigmatization Questionnaire; **PSQI:** Pittsburgh Sleep Quality Index; **PSS-10:** Perceived Stress Scale; **SD-NRS:** Sleep Disturbance Numeric Rating Scale; **SF-8:** 8-item Short-Form Health Survey; **Sleep-NRS:** Sleep Numeric Rating Scale; **WPAI-AD:** Work Productivity and Activity Impairment – Atopic Dermatitis.

Table S6. STROBE checklist

Author (year)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total
Aggarwal, P. et al. (2021) ³¹	1	1	1	1	1	1	1	1	0	1	0.5	1	1	1	1	0.5	0.5	1	1	1	1	1	19.5
Brenaut, E. et al. (2018) ¹³	1	1	1	1	1	0.5	1	1	0	0.5	1	1	0.5	1	1	0.5	1	1	1	1	1	1	19
D´Amiano, A. et al. (2025) ²⁵	1	1	1	1	1	1	1	1	0	0	0.5	0	0.5	1	1	0	0.5	1	1	1	1	1	16.5
Dhawan, L. et al. (2018) ³⁰	1	1	1	1	1	0.5	1	1	0	0	1	1	0.5	1	1	0	1	1	1	1	1	1	18
Erdem, Y. et al. (2021) ²²	1	1	1	1	1	0.5	1	1	0.5	1	1	1	0.5	1	1	0	1	1	1	1	1	1	19.5
Ficheux, AS. et al. (2025) ¹⁴	1	1	1	1	1	0.5	1	1	0.5	0	1	1	0.5	1	1	1	1	1	1	1	1	1	19.5
Gründel, S. et al. (2020) ³⁸	1	1	1	1	1	1	1	1	0	0	1	1	0.5	1	1	1	1	1	1	1	1	1	19.5
Gwillim, EC. et al. (2021) ²⁸	1	1	1	1	0.5	0.5	1	1	0	0	1	1	0.5	1	1	0	0.5	1	1	1	0.5	1	16.5
Murota, H. et al. (2024) ¹⁵	1	1	1	1	1	0.5	1	1	0	0	1	1	0.5	1	1	0	1	1	1	1	1	1	18
Pereira, MP. et al. (2020) ²⁴	1	1	1	1	1	0.5	1	1	0	0	1	1	0.5	1	1	0.5	1	1	1	1	1	1	18.5
Pereira, MP. et al. (2021) ³³	1	1	1	1	1	0.5	1	1	0	0	1	1	0.5	1	1	0.5	1	1	1	1	1	1	18.5
Rodriguez, D. et al. (2023) ¹⁶	1	1	1	1	1	1	1	1	1	1	0.5	0	1	1	1	0	1	1	1	1	1	1	19.5
Sampogna, F. et al. (2017) ²⁶	1	1	1	1	1	0.5	1	1	0	0	1	1	0.5	1	1	1	1	1	1	1	1	1	19
Sampogna, F. et al. (2020) ²⁹	1	1	1	1	1	0.5	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	20.5
Ständer, S. et al. (2023) ¹⁷	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	22
Steinke, S. et al. (2018) ³⁹	1	1	1	1	1	0.5	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	19.5

Sutaria, N. et al. (2022) ¹⁸	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	22
Taghaddos, D. et al. (2024) ⁴⁰	1	1	1	1	1	0.5	1	1	0	0	1	0.5	1	1	1	0	0.5	1	1	1	1	1	17.5
Todberg, T. et al. (2020) ²¹	1	1	1	1	1	0.5	1	1	0	0	1	0.5	1	1	1	0	0.5	1	1	1	1	1	17.5
Whang, KA. et al. (2022) ²³	1	1	1	1	1	1	1	1	1	0.5	1	1	1	1	1	1	1	1	1	1	1	1	21.5
Yin, M. et al. (2023) ¹⁹	1	1	1	1	1	0.5	1	1	0	0.5	1	1	1	1	1	1	1	1	1	1	1	1	20
Zeidler, C. et al. (2021) ²⁷	1	1	1	1	1	0.5	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	19.5
Zeidler, C. et al. II (2021) ³²	1	1	1	1	1	0.5	1	1	0.5	0	1	1	1	1	1	1	1	1	1	1	1	1	20