Research Report

PSYCHIATRIC SEQUELAE OF GENITAL DERMATOSES: A TWO-YEAR FOLLOW-UP STUDY

Nimmy Chandran[1*], Anupa Mary Job[2], Anirudh Balachandran[3], Ajithra Mary[4], Deepak K S[5]

1. Assistant Professor of Psychiatry, 2. Assistant Professor of Dermatology, 3. Former Senior Resident in Psychiatry, 5. Statistician cum Lecturer in Community Medicine, Government Medical College, Palakkad

4. Specialty doctor, Adult Psychiatry, Berrywood Hospital, Northamptonshire Healthcare NHS Foundation Trust, Northampton, UK.

*Corresponding Author: Assistant Professor, Department of Psychiatry, Government Medical College, Palakkad.

Email: drnimmychandran@gmail.com

ABSTRACT

Background: Genital dermatoses are a group of cutaneous disorders that affect the skin of the external genitalia. Individuals suffering from genital dermatoses may be reluctant to seek treatment because of fear, cultural taboos, and reticence to undergo an examination of the genitalia. This can worsen their dermatological condition and can also cause varying psychological distress. This study aimed to assess the anxiety and depression in patients diagnosed with genital dermatoses and to follow up with them after two years. **Methods:** This longitudinal observational study was conducted at a tertiary care center in Southern India. The study participants were persons diagnosed with genital dermatoses. The Hamilton Anxiety Rating Scale (HAM-A) and Hamilton Depression Rating Scale (HAM-D) were used to assess anxiety and depressive symptoms, respectively. We provided all participants with anxiety and depression with either pharmacological or psychological intervention. A follow-up was done two years after the initial evaluation to reassess the clinical status of their dermatological condition and anxiety and depressive symptoms. **Results:** Of the 60 participants with genital dermatoses, 51 participants completed a two-year follow-up. Among them, only 13 (25.5%) of the participants had persistent genital dermatoses after two years. Compared with the initial assessment values (Mean HAM-A =13.22 (Standard Deviation (SD) = 6.97) (Mean HAM-D = 11.07) (SD = 6.52), there was a significant reduction in both mean HAM-A (5.49) (SD=6.57) (P<0.001) and mean HAM-D (4.46) (SD=5.45) (P<0.001) scores after two years. **Conclusion:** Genital dermatoses can cause significant anxiety and depression. As the dermatological symptoms improve, the anxiety and depressive symptoms also improve.

Keywords: Genital dermatoses, Anxiety, Depression

INTRODUCTION

Dermatological conditions can cause significant psychological distress. A cross-sectional study of patients with various dermatological conditions across 13 countries found that clinical depression was present in 10% of patients, while clinical anxiety was found in 17.2%.[1] A recent meta-analysis indicated that the prevalence of anxiety among patients with various dermatological conditions is 26.7%.[2] Indian literature reports higher figures. An Indian outpatient study in Northern India revealed that 34.2% of patients had definite psychiatric morbidity.[3] Another study from Southern India showed that 65% of patients experienced mild or more severe depressive symptoms.[4,5] An Indian study focusing on the geriatric population with dermatological conditions found depression in 45.5% of patients, and anxiety in 43.2%.[6] There can be a bidirectional relationship between psychological symptoms and dermatological conditions: patients may develop anxiety and depression because of their skin conditions, and

Access the article online:
https://kjponline.com/index.php/kjp/article/view/565
doi:10.30834/KJP.39.1.2026.565.
Received on: 25/07/2025 Accepted on: 03/03/2026
Web Published:12 /04/2026

Please cite the article as: Chandran N, Job AM, Balachandran A, Mary A, Deepak KS. Psychiatric Sequelae of Genital Dermatoses: A Two-Year Follow-up Study. Kerala Journal of Psychiatry 2026; xxx:xx.

these symptoms can, in turn, worsen existing dermatological issues or lead to new skin lesions.[2]

Genital dermatoses encompass a range of dermatological conditions that affect the genital skin of individuals. These conditions can be caused by venereal or non-venereal factors with various underlying etiologies.[7-9] A recent study in Nepal found the prevalence of non-venereal genital dermatoses to be 0.93%.[10] An Indian study reported a prevalence of 30.08 per 10000 male patients for non-venereal genital dermatoses. [11] Individuals with genital dermatoses often experience significant physical and psychological distress. They may be hesitant to share information or seek treatment, which can worsen their condition.[12] Additionally, they may develop a negative self-image of their genitalia, affecting their sexual life and overall quality of life.[13,14] A multicenter study involving 3485 patients from 13 European countries found that 23.1% of patients with dermatological conditions experience sexual problems.[15] Genital dermatoses can substantially impair the quality of life for those affected.[9, 16-18]

Only a few studies have examined the psychological impact on individuals with genital dermatoses. According to a US study, researchers found that women with a chronic inflammatory condition (Lichen sclerosus) affecting the anogenital area have a significantly higher risk of depression and anxiety compared to matched controls.[19] Another study from the UK revealed that 54% of patients with lichen sclerosus experienced moderate to severe anxiety, and 27% encountered depression at least once during the study period.[20] A study conducted in Turkey showed that the nonvenereal group has more depression, anxiety, and stress than those with venereal genital dermatoses.[21] However, there is a gap in data regarding psychiatric morbidity in patients with genital dermatoses from India. The longitudinal course of psychiatric issues in these individuals remains unknown. We aimed to evaluate the anxiety and depressive symptoms among patients with genital dermatoses and follow up with them after two years.

MATERIALS AND METHODS

This was a longitudinal study carried out at a tertiary care center in Kerala, India. Follow-up assessments were conducted after two years and completed in January 2025. Ethical approval was obtained from the institution. The study involved patients diagnosed with genital dermatoses. The dermatology outpatient department operates four days a week. Study participants included patients attending the dermatology outpatient department at our center who were clinically diagnosed with genital dermatoses by a dermatologist.

After the initial clinical screening by a single dermatologist, patients with a clinical diagnosis of genital dermatoses were referred to the psychiatry OPD. A convenience sampling method was used for the study. The sample size was 60, calculated based on results from a previous study, with a 95% confidence level and 80% power.[16] Informed consent was obtained from all participants. The study included participants aged 18 years and older who could read or understand English or Malayalam. Patients with preexisting severe and chronic psychiatric disorders (schizophrenia, bipolar affective disorder, obsessive-compulsive disorder, and dementia) were excluded based on a clinical interview conducted by a psychiatrist. A semi-structured questionnaire collected socio-demographic information, including age, gender, marital status, education, and employment status. After screening for major psychiatric disorders, the psychiatrist assessed anxiety and depressive symptoms. ICD-10 diagnostic criteria were used for clinical diagnosis. The severity of anxiety was evaluated using the Hamilton Rating Scale for Anxiety-14.[22] Patients with HAM-A scores less than 8 were considered to have no anxiety, scores

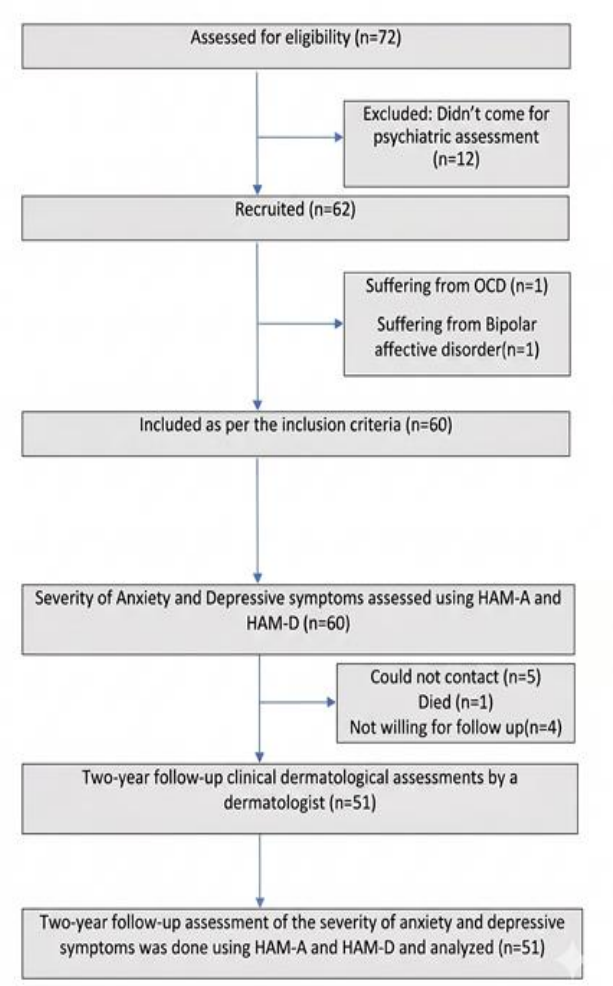
of 8-14 indicated mild anxiety, 15-23 indicated moderate anxiety, and scores of 24 or higher indicated severe anxiety.[23] The severity of depression was assessed using the Hamilton Rating Scale for Depression(HAM-D-17).[24] Patients with HAM-D scores of 7 or less were considered to have no depression, scores of 8-16 indicated mild depression, 17-23 indicated moderate depression, and scores of 24 or higher indicated severe depression. [25] After two years, a follow-up clinical assessment was performed by a dermatologist, followed by an evaluation of anxiety and depressive symptoms by a psychiatrist. HAM-A and HAM-D scales were used to assess the severity of anxiety and depressive symptoms.

Categorical data were presented as frequencies and percentages, while continuous data, such as scores on the HAM-A and HAM-D scales, were expressed as means and standard deviations. A paired t-test was conducted to compare baseline HAM-A and HAM-D scores with the two-year values. The chi-square test was used to examine the association between genital dermatoses and anxiety and depression after two years. Inferential statistical analysis was performed to evaluate the relationship between depression and anxiety with various demographic variables. An independent samples t-test was used to compare anxiety and depression scores across different genders and education levels. One-way ANOVA was performed to compare anxiety and depression scores among various occupational groups. Spearman's rank correlation was used to assess the relationship between age and anxiety and depression scores. We performed the statistical analysis using SPSS v.20.

RESULTS

After the initial screening, a total of 72 patients (Considering a non-response rate of 20%, 72 participants were screened) with a clinical diagnosis of genital dermatoses were referred for psychiatric assessment. Among the total of 72 patients,10 patients didn't appear for Psychiatric assessment. When contacted by phone, patients reported a lack of time and other logistical issues. A total of 62 patients gave informed consent to participate in the study. Further, two patients were excluded after one was diagnosed with Obsessive-compulsive disorder and another with Bipolar affective disorder. Sixty patients completed the initial psychiatric assessment, and 51 participants completed the follow-up assessment. The attrition rate was 15%. (Figure 1)

Figure 1: Flow chart



Among the 60 participants, 35 (58.3%) were females, and the remaining 25 (41.7%) were males. The average age of the participants was

38.6 years. Only 10% of the participants were over 60 years old. All others ranged from 18 to 60 years of age. The majority of participants were married (66.7%). None of our participants were illiterate. Most participants (93.3%) had an education level of high school or higher. However, 46.7% of them were unemployed. The largest group (28.3%) held clerical jobs. Other occupations included skilled workers (13.3%), semi-professional jobs (5%), professional jobs (3.3%), and semi-skilled workers (3.3%). Only 6 participants (10%) had venereal genital dermatoses. The remaining 90% had non-venereal genital dermatoses. The study included both acute and chronic cases. The duration of symptoms ranged from one week to 10 years, with a mean duration of 211 days and a standard deviation (SD) of 534 days. After two years, only 13 participants (25.5%) still had genital dermatoses. (Table 1)

Table 1: Sociodemographic factors

Sociodemographic factors	**Frequency Number (Percent)**
Age (Years)	
18-30	23(38.3%)
31-45	20(33.3%)
46-60	11(18.3%)
>60	6(10%)
Education	
Illiterate	0
Primary school	1(1.7%)
Middle school	3(5%)
High school	24(40%)
Diploma	15(25%)
Degree	11(18.3%
Post-graduation/professional	6(10%)
Occupation	
Unemployed	28(46.7%)
Semi-skilled worker	2(3.3%)
Skilled worker	8(13.3%)
Clerical/Shop owner	17(28.3%)
Semi-professional	3(5%)
Professional	2(3.3%)
Marital status	
Married	40(66.7%)
Unmarried	18(30%)
Widow/widower	2(3.3%)

The baseline mean HAM-A score of all participants was 13.22 (SD = 6.97), indicating mild anxiety symptoms. The mean baseline HAM-D score of all participants was 11.07 (SD=6.52), indicating mild depressive symptoms. There was a significant reduction in both mean anxiety and depression scores after two years. (Table 2) Forty-six (76.7%) patients had significant anxiety symptoms at baseline, while only 14 participants (27.5%) had significant anxiety after two years. Forty-two (70%) participants had significant depressive symptoms at baseline, but only 10 participants (19.6%) had significant depression after two years. According to HAM-A severity scoring, initially, severe anxiety symptoms were present in 3 (5%) patients. Moderate anxiety symptoms were present in 24 (40%) patients. Mild anxiety symptoms were present in 19 (31.7%) patients. Fourteen (23.3%) patients had no or minimal anxiety symptoms. Seventy percent (70%) of patients had at least mild or higher depressive symptoms in the initial assessment. According to HAM-D severity scoring, severe depressive symptoms were present in 3 (5%) patients. Moderate depressive symptoms were present in 8 (13.3%) patients. Mild depressive symptoms were present in 31 (51.7%) patients. Only minimal depressive symptoms were present in 18 (30%) participants. After the initial assessment, pharmacological intervention was provided to 18

(30%) of participants. Psychological intervention was provided to 30 (50%) of participants. No psychiatric intervention was provided to the remaining 12 (20%). At follow-up, only 8 (13.3%) participants needed pharmacological treatment, and 13 (21.67%) participants required psychological intervention.

Table 2: The difference between anxiety and depressive symptoms at baseline and two-year follow-up

HAM-A and HAM-D	n	Mean	SD	P-Value
HAM A Baseline	60	12.45	6.69	<0.001
HAM-A after 2 years	51	5.49	6.57	
HAM-D Base LINE	60	10.73	6.55	<0.001
HAM-D After 2 Year	51	4.16	5.45	

There was no significant difference between both genders in either the mean HAM-A score (p=0.54) or the mean HAM-D score (p=0.57). There was no significant correlation between HAM-A and HAM-D scores and age. The married group had significantly higher depressive symptoms (p=0.05; t=1.86) compared to the unmarried group. There was a significant difference in HAM-A and HAM-D scores between groups of various occupations. The mean HAM-A score of the skilled and semiskilled group was significantly higher (p=0.02) than that of unemployed participants. Similarly, the HAM-A score of the clerical group was significantly higher (p = 0.04) compared to the unemployed group. HAM-D scores of participants engaged in skilled and semi-skilled work were significantly higher (p=0.001) than those of the unemployed group. There was no significant correlation between HAM-A (p=0.09) and HAM-D scores(p=0.13) with the total duration of illness. There was also no significant difference between the HAM-A (p=0.71) and HAM-D (p=0.88) scores between the venereal genital dermatoses group and the non-venereal genital dermatoses group. (Table 3)

Table 3: Association of sociodemographic factors and anxiety and depression

Sociodemographic characteristics	HAM-A score				HAM-D score			
	n	Mean (SD)	t/F Value	P value	n	Mean (SD)	t/F value	p
Gender								
Male	25	12.56(6.11)	0.61	0.54	25	11.64(6.86)	0.57	0.57
Female	35	13.69(7.57)			35	10.66(6.34)		
Marital status								
Married	40	14.20(7.49)	1.71	0.09	40	12.23(6.73)	1.86	0.05
Unmarried	18	10.83(5.47)			18	8.83(5.67)		
Educational status								
High school and below	28	14.25(8.51)	1.04	0.30	28	11.68(7.46)	0.68	0.50
Diploma and above	32	12.31(5.24)			32	10.53(5.64)		
Occupational status								
Unemployed	28	10.96(6.05)	2.75	0.05		8.96(5.87)	5.19	0.003
Skilled/semi-skilled	10	16.90(8.10)				16.60(		

Clerk	17	15.29(6.82)				12.47		
Professional/semi-professional	5	11.40(6.54)				7.00		
Clinical parameter								
Venereal	6	12.17(5.85)	0.39	0.70		10.67(6.02)	0.16	0.88
Non venereal	54	13.33(7.12)				11.11(6.63)		

We could do the follow-up assessments of 51 participants. Only 13 participants had persistent genital dermatoses at the end of two years. Out of those 13 participants, 10 had significant anxiety, and 8 had significant depression. Out of 38 participants who didn't have genital dermatoses, four had anxiety, and two had depression. There was a significant association between genital dermatoses and anxiety. Similarly, there was a significant association between genital dermatoses and depression. (Table 4)

Table 4: Association of anxiety, depression with genital dermatoses

Genital dermatoses after 2 years (N=51)	Significant Anxiety			Significant Depression		
	Present	Absent	P value	Present	Absent	P value
Present (13)	10(76.9 %)	3(23.1 %)	<0.001	8(61.5 %)	5(38.5 %)	<0.001
Absent (38)	4(10.5 %)	34(89.5 %)		2(5.3 %)	36(94.7 %)	

DISCUSSION

In this study, a total of 60 participants with genital dermatoses were assessed for anxiety and depression and followed up after two years. The initial mean HAM-A and HAM-D scores of all participants were 13.22, indicating mild anxiety symptoms, and 11.07, indicating mild depressive symptoms, respectively. At two years' follow-up, only 13(25.5%) of participants had genital dermatoses. There was a significant reduction in the mean anxiety and depression scores at the two-year follow-up. The two-year follow-up mean HAM-A score (5.49) was significantly lower ($p<0.001$) compared to the baseline score, and the two-year follow-up mean HAM-D score (4.46) was significantly lower ($p<0.001$) compared to the baseline score. These results show that the relief of dermatological conditions significantly reduces anxiety and depressive symptoms. The results are similar to the results of an Australian longitudinal study of women having dermatological conditions, which showed that depression was significantly associated with dermatological conditions.[26] But none of the studies have specifically followed up on the cases of genital dermatoses.

The number of female patients was higher than that of male patients in our study, unlike previous studies conducted on genital dermatoses in India and abroad. [10, 17, 21] However, the gender distribution was similar to a few other studies conducted on all dermatological conditions in India. [5, 27] The significant concern about dermatological conditions among females compared to males could be a possible reason. A 2.16 and 2.5-fold increased risk of depression and anxiety was found in adult female patients with lichen sclerosus (a condition affecting the anogenital area of females) compared to matched individuals in 765 women in the US.[19] Another study from Italy showed decreased work productivity and decreased sexual quality of life in females with genital lichen sclerosus.[28] The mean age of our study population was 38.6 years, which is similar to previous studies, between 35 and 40 years. [17, 21] Like another study conducted on genital dermatoses in India, married individuals were more commonly affected than

unmarried individuals in this study. But the nationwide Swedish study showed a significantly lower prevalence of lichen sclerosus among married individuals.[29] These results point towards a significant variability in the help-seeking pattern in married/ unmarried people as per cultural differences. [17,29] An Indian study shows married persons are also found to have a worse quality of life compared to unmarried persons if affected with genital dermatoses.[17]

The mean baseline HAM-A score of all participants was 13.22(SD=6.97), indicating mild anxiety symptoms. This result was similar to another study conducted in Turkey, which also showed mild anxiety levels in non-venereal genital dermatosis patients.[21] The mean baseline HAM-D score of all participants was 11.07 (SD=6.52), indicating mild depressive symptoms. Another study conducted on genital dermatoses in Turkey showed a higher moderate level of depression in non-venereal genital dermatoses.[21]

Seventy per cent of our participants had at least mild depressive symptoms. There seems to be a significant difference between the clinical profile and symptoms of patients with general dermatological conditions and genital dermatoses, and it may not be proper to compare the results of genital dermatoses with general dermatological conditions. The prevalence of depressive symptoms ranges from 33.3% in one north Indian study to 89% in one south Indian study.[4,30] One study conducted on chronic dermatological conditions in Eastern India showed that 45.54% of participants have depression.[4,5,30] Cultural differences could contribute to such a wide variation.

Mild or more anxiety symptoms were present in 76.7% of our participants. This was higher compared to another study conducted on all chronic dermatological conditions in India, which showed 41.58% of patients had anxiety.[31] Genital dermatoses might cause more anxiety compared to other dermatological conditions.

We could not find any correlation between age, anxiety, and depressive symptoms. Another study conducted on general dermatological conditions in India also couldn't find any significant association between depression and age.[4] We couldn't find any significant difference in either anxiety or depressive symptoms between the genders. This was in line with a study conducted on general dermatological conditions in India.[4] In our study, married people had significantly higher depressive symptoms compared to the unmarried group. Genital dermatoses may be affecting their sexual life and thus causing more depressive symptoms. Increased social and familial responsibilities among married individuals could be another reason. There were significantly more depressive symptoms in the skilled and semi-skilled groups compared to the unemployed group. Working for long hours with genital dermatoses may cause additional stress for persons with skilled and semi-skilled jobs or clerical jobs compared to unemployed persons. That may be the reason for higher anxiety and depressive symptoms in skilled and semiskilled and clerical jobs compared to the unemployed group.

Only six of our participants had venereal genital dermatoses. All others were suffering from non-venereal genital dermatoses. We could not find any significant difference in anxiety (p=0.71) or depressive symptoms (p=0.88) between the venereal and non-venereal groups. A study conducted in Turkey found that the non-venereal group had significantly higher anxiety and depression scores compared to the venereal group.[21] We could not find any association between the duration of genital dermatoses and anxiety (p=0.09) and depressive symptoms (p=0.13). Previous studies found that chronic dermatologic conditions have a higher probability of developing depressive and anxiety symptoms and a worse quality of life.[5,31] Our result is similar to that of another study, which found no significant difference in quality of life

between patients with acute and chronic genital dermatoses.[17] There is a need for further studies that compare acute and chronic cases of genital dermatoses.

Although many studies have looked at anxiety and depressive symptoms in many chronic dermatological conditions, the genital dermatoses group was the least studied, although expected to have high stigma and stress. Our study could assess the anxiety and depressive symptoms in patients with genital dermatoses and also follow up with them longitudinally.

The severity of dermatological symptoms and the specific treatments provided for genital dermatoses were not included in the study. Both factors may influence the psychological symptoms of the participants. This study was conducted at a single center and involved a relatively small population, so the results cannot be broadly generalized. Further multicenter studies with larger sample sizes are necessary. Additionally, qualitative research should be carried out to understand how genital dermatoses impact the sexual life and overall quality of life of participants, thereby contributing to depression and anxiety.

CONCLUSION

Genital dermatoses can cause significant anxiety and depression. As the dermatological symptoms improve, the anxiety and depressive symptoms also tend to improve. This shows a definite association, and there is a need to look into the psychological symptoms of patients presenting with genital dermatoses. Timely screening and management of anxiety and depressive symptoms will be useful for the patients. We need further interventional studies to investigate how the intervention improves anxiety and depressive symptoms and the symptoms of genital dermatoses.

Financial support and sponsorship: Nil

IEC Number: IEC/GMCTSR/006/2021 Dated 20/ 01/ 2021

Conflicts of interest: There are no conflicts of interest

"The author(s) attest that there was no use of generative artificial intelligence (AI) technology in the generation of text, or other informational content of this manuscript. Except for the use of Gemini for figure 1."

REFERENCES

1. Dalgard FJ, Gieler U, Tomas-Aragones L, Lien L, Poot F, Jemec GBE, et al. The psychological burden of skin diseases: a cross-sectional multicenter study among dermatological out-patients in 13 European countries. J Invest Dermatol. 2015 Apr; 135(4):984-991.
2. Storer B, Kershaw KA, Braund TA, Chakouch C, Coleshill MJ, Haffar S, et al. The prevalence of anxiety disorders in dermatology outpatients: A systematic review and meta-analysis. J Eur Acad Dermatol Venereol. 2023; 37:1576–1586.
3. Raikhy S, Gautam S, Kanodia S. Pattern and prevalence of psychiatric disorders among patients attending dermatology OPD. Asian J Psychiatr. 2017 Oct; 29:85-88.
4. Kumar A, Kumar K, Swarup P, Goel S, Tomar AS. A study to find depression in patients attending dermatological OPD in a teaching hospital. J Family Med Prim Care. 2016 Apr-Jun; 5(2):449-452.
5. Kosaraju SK, Reddy KS, Vadlamani N, Sandhya L, Kalasapati L, Maganti S, et al. Psychological Morbidity Among Dermatological Patients in a Rural Setting. Indian J Dermatol. 2015 Nov-Dec; 60(6):635.
6. Geetha AA, Abdul Latheef EN, Sukumarakurup S, Devi K, Jafferany M. Psychiatric morbidity, stress and quality of life among geriatric dermatology patients: Therapeutic considerations from an Indian perspective. Dermatol Ther. 2021 Jul; 34(4):e15018.
7. Mondal S, Ghosh SK, Biswas SK, Das Pramanik J, Das S. Profile of Nonvenereal Female Genital Dermatoses: A Cross-Sectional Study From

Eastern India. J Low Genit Tract Dis. 2022 Jul 1; 26(3):276-282.
8. Singh N, Thappa DM, Jaisankar TJ, Habeebullah S. Pattern of non-venereal dermatoses of female external genitalia in South India. Dermatol Online J. 2008 Jan 15; 14(1):1.
9. Vellaisamy SG, Muthukumarasamy V, Gopalan K. A study of pattern and assessment of life quality index in patients of nonvenereal dermatoses of external genitalia at a tertiary care center. Indian J Sex Transm Dis AIDS. 2023 Jan-Jun; 44(1):49-55.
10. Paudel V, Chudal D, Paudel U, Shrestha DP. A clinical and epidemiological study of non-venereal genital dermatoses: A cross-sectional, hospital-based study from Nepal. Our Dermatol OnlineNasza Dermatol Online. 2022; 13(1): 16-21.
11. Kumar PS, Ramatulasi S, Darla S, Acharya A. A clinical study on non venereal genital dermatoses in adult males at a tertiary care center [Internet]. IP Indian J Clin Exp Dermatol. 2019; 5(2):98-102.
12. Sadownik LA, Koert E, Maher C, Smith KB. A Qualitative Exploration of Women's Experiences of Living With Chronic Vulvar Dermatoses. J Sex Med. 2020 Sep; 17(9):1740-1750.
13. Rivera S, Flood A, Dykstra C, Herbenick D, DeMaria AL. Genital Self-Image, Sexual Function, and Quality of Life Among Individuals with Vulvar and Non-Vulvar Inflammatory Dermatoses. Arch Sex Behav. 2022 Nov; 51(8):3965-3979.
14. Ryan C, Sadlier M, De Vol E, Patel M, Lloyd AA, Day A, et al. Genital psoriasis is associated with significant impairment in quality of life and sexual functioning. J Am Acad Dermatol. 2015 Jun; 72(6):978-83.
15. Sampogna F, Abeni D, Gieler U, Tomas-Aragones L, Titeca G, Lien L, et al. Impairment of sexual life in 3,485 dermatological outpatients from a multicentre study in 13 European countries. Acta Derm Venereol. 2016; 97(4):478.
16. Kelekçi KH, Özyurt S, Özkan B, Karaca Ş, Karakuzu A, Bilgin İ. The impact of inflammatory and infectious diseases of vulvar on quality of life. J Menopausal Med. 2016 Dec; 22(3):131-138.
17. Vinay N, Ranugha PSS, Betkerur JB, Shastry V, Ashwini PK. Non-venereal genital dermatoses and their impact on quality of life-A cross-sectional study. Indian J Dermatol Venereol Leprol. 2022 May-Jun; 88(3):354-359.
18. Job AM, Bindurani S, Mohan M, Mohanasundaram SN. A descriptive study of patterns of genital dermatoses in patients in south India and evaluation of their quality-of-life. J Skin Sex Transm Dis. 2025; 7:34-40.
19. Fan R, Leasure AC, Maisha FI, Little AJ, Cohen JM. Depression and Anxiety in Patients With Lichen Sclerosus. JAMA Dermatol. 2022 Aug 1; 158(8):953-954.
20. Shasi PB, Chapman HT, Evans DT, Jaleel H. Psychological and psychiatric morbidity in lichen sclerosus in a cohort recruited from a genitourinary medicine clinic. Int J STD AIDS. 2010 Jan; 21(1):17-8.
21. Temel B, Orenay OM, Yigit D, Kaymak D, Karaosmanoglu N, Eksioglu HM. Evaluation of Dermatology Life Quality Index, Depression-Anxiety-Stress Scores of Patients with Genital Dermatoses. Indian J Dermatol. 2023 Jul-Aug; 68(4):399-
22. Hamilton M. The assessment of anxiety states by rating. Br J Med Psychol. 1959; 32(1):50-5.
23. Matza LS, Morlock R, Sexton C, Malley K, Feltner D. Identifying HAM-A cutoffs for mild, moderate, and severe generalized anxiety disorder. Int J Methods Psychiatr Res. 2010 Dec; 19(4):223-32.
24. Hamilton M. A rating scale for depression. J Neurol Neurosurg Psychiatry. 1960 Feb; 23:56–62.
25. Zimmerman M, D'Avanzato C, Attiullah N, Friedman M, Toba C, Boerescu DA. Scoring rules and rating formats of Self-report Depression Questionnaires: a comparison of approaches. Psychiatry Res. 2014 Aug 15;218(1-2):225-8.
26. Magin P, Sibbritt D, Bailey K. The relationship between psychiatric illnesses and skin disease: a longitudinal analysis of young Australian women. Arch Dermatol. 2009 Aug;145(8):896-902.
27. Kuruvilla M, Sridhar KS, Kumar P, Rao GS. Pattern of skin diseases in Bantwal Taluq, Dakshina Kannada. Indian J Dermatol Venereol Leprol. 2000; 66(5):247–8.

28. Jabłonowska O, Woźniacka A, Szkarłat S, Żebrowska A. Female genital lichen sclerosus is connected with a higher depression rate, decreased sexual quality of life and diminished work productivity. PLoS One. 2023 Apr 25; 18(4):e0284948.
29. Jerkovic Gulin S, Kravvas G, Seifert O. Regional Variations in the Incidence of Lichen Sclerosus in Sweden: Insights from a Nationwide Register Study (2001–2021). J Clin Med [Internet]. 2024 Jan [cited 2025 Jul 22]; 13(24):7836.
30. Behera PR, Palepu S, Sirka CS, Ranjan R, Pradhan S, Singh AK. Psychosocial Distress and Quality of Life Among Patients With Chronic Skin Disorder at a Tertiary Care Hospital in Eastern India: A Hospital-Based Case-Control Study. Cureus. 2022 Oct 2; 14(10):e29830.
31. Balieva F, Abebe DS, Dalgard FJ, Lien L. Risk of developing psychiatric disease among adult patients with skin disease: A 9-year national register follow-up study in Norway. Skin Health Dis. 2023 Oct 20; 3(6):e294.