Section: DVL

Original Research Article

A STUDY ON CLINICAL PROFILE OF NON VENEREAL GENITAL DERMATOSES

Penugonda Srinivasulu[1], G Sumalatha[2], E Ramanjaneyulu[3], J Nagaraju[4]

[1]*Professor, Department of Dermatology Venereology Leprosy, Sri Venkateswara Medical College, Tirupathi, Andhra Pradesh, India.*
[2]*Assistant Professor, Department of Dermatology Venereology Leprosy, Sri Venkateswara Medical College, Tirupathi, Andhra Pradesh, India.*
[3]*Assistant Professor, Department of Hospital Administration, Sri Venkateswara Medical College, Tirupathi, Andhra Pradesh, India.*
4MD DVL, Civil Assistant Surgeon, Area Hospital, Rayachoti, India.

Received *: 19/04/2025*
Received in revised form *: 05/06/2025*
Accepted *: 28/06/2025*

Corresponding Author:
Dr. J Nagaraju,
MD DVL, Civil Assistant Surgeon, Area Hospital, Rayachoti, India.
Email: raj.nagraj333@gmail.com

DOI: 10.70034/ijmedph.2025.3.104

Source of Support: Nil,
Conflict of Interest: None declared

Int J Med Pub Health
2025; 15 (3); 568-573

ABSTRACT

Background: Non-venereal dermatoses tend to be confused with sexually transmitted diseases, which may be responsible for considerable concern to the patients. This study was done to analyze clinical profile of non venereal diseases of genitalia.

Materials and Methods: The study was conducted on 150 patients with genital lesions of 18-80 years age groups during the period of June to December 2024. The patient's data was recorded in a pre-structured proforma that includes detailed clinical history, general and cutaneous examination. Data collected was analysed, tabulated, and conclusions were drawn.

Results: Total of 150 cases were analysed during the study period of june to December 2024. Most of the cases belong to the age group 21 - 30 years (23.5%). Males were slightly more than females.

Conclusion: Non-venereal genital dermatoses present a wide clinical spectrum and are more common in young males. Infections and infestations were the most prevalent, followed by inflammatory and benign conditions. Early recognition and accurate diagnosis are essential to avoid mislabeling as sexually transmitted infections and to reduce associated psychological distress.

Keywords: Non venereal diseases of genitalia, SCC (squamous cell carcinoma).

INTRODUCTION

Non-venereal genital dermatoses encompass a diverse group of skin conditions affecting the genital region that are not sexually transmitted, yet frequently present diagnostic challenges and significant psychological distress to patients. These conditions often mimic sexually transmitted infections (STIs), leading to considerable anxiety and guilt among affected individuals who may mistakenly believe they have contracted a venereal disease.[1] The clinical presentation of many non-venereal genital dermatoses can closely resemble that of STIs, making accurate diagnosis crucial for appropriate management.[2]

The prevalence of non-venereal genital dermatoses varies significantly across populations. Studies from India have reported that non-venereal conditions account for approximately 20-30% of all genital dermatological consultations in dermatology clinics.[3] These conditions span a wide spectrum of etiologies, including infectious diseases (fungal, bacterial, viral), inflammatory dermatoses (contact dermatitis, psoriasis, lichen planus), benign variants (pearly penile papules, angiokeratoma), premalignant conditions, and malignant lesions.[4]

Previous studies have highlighted the importance of distinguishing between venereal and non-venereal genital dermatoses. Research has shown that scabies was the most common non-venereal condition, followed by candidal balanoposthitis and contact dermatitis.[5] Studies have reported that infectious conditions, particularly dermatophyte infections, were predominant in South Indian males.[6] Other research observed that inflammatory conditions were more common in females, while infectious conditions predominated in males.[7]

The psychological impact of genital dermatoses cannot be understated. Patients often experience significant anxiety and relationship difficulties due to the intimate nature of these conditions and fear of

having contracted an STI.[8] This psychological burden emphasizes the importance of accurate diagnosis and appropriate patient counselling.

Despite the clinical significance of non-venereal genital dermatoses, comprehensive studies analyzing their clinical profile in the Indian context remain limited. The present study was therefore undertaken to analyze the clinical profile of non-venereal genital dermatoses in patients attending a tertiary care dermatology department, to determine demographic characteristics, identify the most common conditions, and analyze their etiological distribution.

MATERIALS AND METHODS

This cross-sectional observational study was conducted at the Department of Dermatology, Venereology and Leprosy, Sri Venkateswara Medical College and SVRRGGH, Tirupati, Andhra Pradesh, India, from June to December 2024.

A total of 150 patients aged 18-80 years attending the dermatology outpatient department were enrolled using consecutive sampling. Patients presenting with genital lesions of non-venereal origin who provided informed written consent were included. Exclusion criteria included patients already on treatment for non-venereal genital diseases, those with high-risk sexual behaviour, suspected sexually transmitted infections, and pregnant women.

Detailed clinical history was obtained using a pre-structured proforma including demographic details, chief complaints, duration of symptoms, associated symptoms, past medical and drug history, and personal hygiene practices. Comprehensive dermatological examination included general physical examination, complete cutaneous examination, and detailed assessment of genital and perigenital areas. Lesion characteristics including site, size, shape, surface, edge, base, and discharge were documented. Clinical photographs were obtained after additional written consent.

Appropriate investigations were performed based on clinical suspicion:

- Complete blood count for all patients
- Random blood sugar to exclude diabetes mellitus
- KOH mount for suspected fungal infections
- Tzanck smear for vesiculobullous lesions
- Gram staining for suspected bacterial infections
- Histopathological examination for ambiguous cases, chronic lesions, and suspected malignancies

Diagnosis was based on clinical presentation, laboratory results, histopathological findings when available, and exclusion of sexually transmitted infections.

Data were analyzed using SPSS version 26.0. Descriptive statistics including frequencies, percentages, means, and standard deviations were calculated. Chi-square test was used for categorical variables. A p-value <0.05 was considered statistically significant.

Ethical approval was obtained from the Institutional Ethics Committee. Written informed consent was obtained from all participants, with additional consent for clinical photography. Patient anonymity and confidentiality were strictly maintained.

RESULTS

Table 1: Age and Gender Distribution of Study Participants (N=150)

Demographic Variable	Category	Number of Patients	Percentage (%)
Age Groups (Years)	18-20	6	4.0
	21-30	35	23.3
	31-40	28	18.7
	41-50	24	16.0
	51-60	20	13.3
	61-70	22	14.7
	71-80	15	10.0
Gender	Male	117	78.0
	Female	33	22.0

Table 2: Etiological Classification of Non-Venereal Genital Dermatoses

Etiological Category	Number of Cases	Percentage (%)
Infections and Infestations	52	34.7
Inflammatory Dermatoses	27	18.0
Benign and Normal Variants	21	14.0
Pigmentary Disorders	12	8.0
Drug Reactions	5	3.3
Premalignant Conditions	1	0.7
Malignant Conditions	1	0.7
Total	**119***	**79.4**

*Note: Some patients may have had multiple conditions or the remaining cases fall under other miscellaneous categories

Table 3: Top 10 Most Common Non-Venereal Genital Dermatoses

Condition	Number of Cases	Percentage of Total (%)	Primary Category
Tinea Cruris	21	14.0	Infections and Infestations
Scabies	15	10.0	Infections and Infestations
Vitiligo	12	8.0	Pigmentary Disorders
Pearly Penile Papules	11	7.3	Benign and Normal Variants
Contact Dermatitis	10	6.7	Inflammatory Dermatoses
Angiokeratoma	7	4.7	Benign and Normal Variants
Lichen Planus	6	4.0	Inflammatory Dermatoses
Psoriasis	5	3.3	Inflammatory Dermatoses
Acrochordon	5	3.3	Benign and Normal Variants
Stevens-Johnson Syndrome	3	2.0	Drug Reactions

Table 4: Gender Distribution of Most Common Conditions

Condition	Male (n=117)	Female (n=33)	Male:Female Ratio
Tinea Cruris	13 (62%)	8 (38%)	1.6:1
Scabies	10 (67%)	5 (33%)	2:1
Contact Dermatitis	5 (50%)	5 (50%)	1:1
Lichen Planus	4 (67%)	2 (33%)	2:1
Pearly Penile Papules	11 (100%)	0 (0%)	Male-specific

This study revealed significant demographic and clinical patterns in non-venereal genital dermatoses. The predominance of young adults aged 21-30 years (23.3%) suggests that these conditions commonly affect individuals during their peak reproductive years, potentially causing considerable psychological distress due to concerns about sexually transmitted infections. The marked male predominance (78% vs 22%) with a 3.5:1 ratio may be attributed to anatomical differences, occupational exposure, and varying hygiene practices between genders.

Infections and infestations emerged as the leading etiological category (34.7%), with tinea cruris being the most frequent individual condition (14.0%). This pattern reflects the tropical climate of the study region, where high humidity and temperature favor fungal proliferation. The relatively low incidence of malignant conditions (0.7%) is reassuring and consistent with the benign nature of most non-venereal genital dermatoses.

The equal gender distribution observed in contact dermatitis suggests similar exposure patterns to irritants or allergens, while the male-specific occurrence of pearly penile papules aligns with its anatomical nature. These findings emphasize the importance of accurate differential diagnosis to distinguish non-venereal conditions from sexually transmitted infections, thereby reducing patient anxiety and ensuring appropriate management.

Figure 1: BALANOPOSTHITIS

Figure 2: GENITAL VITILIGO

Figure 3: LICHEN SIMPLEX CHRONICUS

Figure 4: MOLLUSCUM CONTAGIOSUM

Figure 5: SCROTAL CALCINOSIS

Figure 6: GENITAL PSORIASIS

Figure 7: SQUAMOUS CELL CARCINOMA OF PENIS

Figure 8: TINEA CRURIS

Figure 9: FURUNCULOSIS

Figure 10: ANGIOKERATOMA MOLLUSCUM CONTAGIOSUM

Figure 11: LICHEN SCLEROSUS ET ATROPHICUS

Figure 12: EROSIVE LICHEN PLANUS

Figure 13: PEMPHGUS VEGETANS

Figure 14: TINEA CRURIS

DISCUSSION

This study of 150 patients with non-venereal genital dermatoses reveals important epidemiological patterns and clinical characteristics in a South Indian tertiary care setting. The findings provide valuable insights for clinical practice and patient management.

The predominance of young adults aged 21-30 years (23.5%) is consistent with previous studies. Singhal and Nair reported similar age distribution patterns in their study of non-venereal male genital dermatoses.[2] Our male predominance (78% vs 22%) with a 3.5:1 ratio is notably higher than Karthikeyan et al.'s study which showed predominance of males but with a lower ratio.[6] This difference may reflect regional variations in healthcare-seeking behaviour and occupational exposures in our study population.

Our finding that infections and infestations constitute the largest category (34.7%) aligns with the tropical climate of South India and is consistent with existing literature. Tinea cruris emerged as the most common condition (14.0%), which contrasts with Babu et al.'s study where scabies was the most frequent disorder.[1] However, our scabies prevalence (10.0%) was significant, reflecting the continued importance of this condition in the region.

The predominance of dermatophyte infections in our study is consistent with Karthikeyan et al.'s findings where infectious conditions, particularly dermatophyte infections, were the predominant cause of non-venereal genital dermatoses in South Indian males.[6] Climate factors including high humidity and temperature in Andhra Pradesh likely contribute to this pattern.

Contact dermatitis prevalence (6.7%) in our study is comparable to Singh et al.'s findings, who encountered cases of irritant dermatitis involving genital regions.[4] The equal gender distribution (5 males, 5 females) in our study supports similar exposure patterns to genital irritants and allergens among both sexes.

Lichen planus was observed in 6 cases (4.0%) in our study, predominantly affecting males. This finding is consistent with the general literature on genital lichen planus where male predominance is often reported. Pemphigus involvement was noted in 2 cases, which aligns with Marren et al.'s report of vulvar involvement in pemphigus vulgaris.[8]

Our identification of pearly penile papules in 11 cases (7.3%) highlights the importance of recognizing normal anatomical variants to prevent patient anxiety about sexually transmitted infections. The presence of various benign variants including angiokeratoma and acrochordon emphasizes the need for proper patient education and reassurance.

The identification of one case of squamous cell carcinoma (0.7%) is consistent with Micali et al.'s observations regarding penile malignancies.[9] Although rare, this finding underscores the importance of careful clinical evaluation and histopathological examination when indicated, particularly in elderly patients with chronic genital lesions.

The diversity of 33 different conditions in our study emphasizes the diagnostic challenge in distinguishing non-venereal from venereal diseases. Acharya et al. in their study of 200 cases of genital lesions of non-venereal origin also highlighted this diagnostic complexity.[5]

Our findings differ from some international studies like Khoo and Cheong's study from Singapore, which may reflect regional, climatic, and population differences in disease patterns.[7] The tropical climate of South India appears to favour infectious conditions, particularly fungal infections, which constituted a significant proportion of our cases.

The relatively low prevalence of drug reactions (3.3%) in our study may reflect different medication usage patterns or healthcare practices in our region compared to other populations.

CONCLUSION

Non-venereal genital dermatoses show distinct epidemiological patterns in South India, with infectious conditions, particularly tinea cruris, predominating due to favourable climatic factors. The marked male predominance and young adult

age distribution have important implications for targeted prevention and management strategies. Recognition of the diverse spectrum of these conditions is essential for accurate diagnosis, appropriate treatment, and effective patient counselling to reduce anxiety associated with concerns about sexually transmitted infections.

REFERENCES

1. Babu AN, Mathan R, Ramasamy PP. A clinical study of non‐venereal genital dermatoses. J. Evolution Med Dent Sci 2016;5:6694‐7.
2. SinghalRR, Nair PA. A study on clinical patterns of non venereal male genital dermatoses at a rural-based tertiary care center. Clin Dermatol Rev 2021;5:78-84
3. AyresS. AndersonSP: Persistent nodulesinscabies:ArchivesofDermatol.Syph1932;25:485-493.
4. 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
5. Acharya KM, Ranapara H,Sakia JJ et al.A study of 200 cases of genital lesions of non-venereal origin.Ind J Dermatol Venereol Leprol 1999;64:68-70.
6. Karthikeyan KE, Jaishankar TJ, Thappa DM. Non‐venereal dermatoses of male genital region‐prevalence and pattern in a referral centre in South India. Indian J Dermatol 2001;46:18‐22
7. Khoo LS,Cheong WKcommon genital dermatoses in male patients attending a public sexually transmitted disease clinic in Singapore Ann Acad Med Singapore.1995 Jul;24(4):505-9
8. MarrenP.WojnarowskaF,VenningV. Vulvar involvement of autoimmune bullous disease. J Repord Med 1993, 38:101-7
9. Micali G, Innocenzi D, Nasca MR, Musumeci ML, Ferraú F, Greco M. Squamous cell carcinoma of the penis. J Am Acad Dermatol. 1996 Sep;35(3 Pt 1):432-51. doi: 10.1016/s0190-9622(96)90611-8. PMID: 8784283.