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ORIGINAL ARTICLE

Beyond STIs: A Clinical Insight into Non-Venereal Genital Dermatoses in Women

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Abstract

Background: Diseases affecting the genitalia include both venereal and non-venereal conditions. Non-venereal genital dermatoses (NVGD) are not sexually transmitted but involve the genital region, often presenting with features that differ from their appearance elsewhere on the body. **Aim:** To study the clinical profile of female patients with NVGD in a tertiary care hospital. **Methods:** This cross-sectional study included 140 female patients presenting with genital complaints over one year. Patients diagnosed with venereal diseases were excluded. Detailed clinical history, physical examination, and relevant investigations were conducted. **Results:** A total of 140 patients aged 16–80 years (mean age 38.3 years) were included. The most common presenting symptom was itchy plaques (53.1%). Lesions were localized to the genital area in 42.8% of patients. Infections and infestations were the most common group (60%), with tinea cruris (35.7%) and vulval candidiasis (11.4%) being predominant. This was followed by inflammatory dermatoses (32.8%), benign conditions (6.4%), and malignancies (0.7%). **Conclusion:** NVGD in females comprise a wide spectrum of disorders that can significantly impact quality of life. Accurate diagnosis is essential to distinguish them from sexually transmitted infections, reduce psychological distress, and ensure appropriate management.

Key Words

Inflammatory Dermatoses; Non-venereal Genital Dermatoses; Tinea Cruris

Introduction

The anatomy of the female external genitalia is complex and unlike other parts of the body, self-examination is challenging, which delays early identification of dermatological conditions [1]. Non-venereal genital dermatoses (NVGD) may resemble venereal diseases, leading to diagnostic difficulties and psychological distress in affected patients[2]. Genital dermatoses are broadly classified into venereal and non-venereal types[3]. The term "non-venereal" is used for genital disorders that are not transmitted sexually. On genital skin, common dermatoses often present with altered morphology, complicating diagnosis[4]. Lesions may be localized or part of a systemic condition. Moisture, occlusion, and the local environment frequently modify clinical features[5]. Careful history-taking and full skin examination, with biopsy when needed, are essential for accurate diagnosis[6].

In females, the vulva comprises the clitoris, urethra, vagina, mons pubis, labia majora, labia minora, and vestibule[7]. NVGD have been broadly classified based on etiopathogenesis into benign abnormalities (angiokeratomas, Fordyce spots, vestibular papillomatosis,

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skin tags, labial varicosities and others), congenital and developmental abnormalities (ambiguous genitalia, labial or clitoral variations), infections and infestations (candidiasis, dermatophyte infections, molluscum contagiosum, herpes zoster, scabies and others), inflammatory dermatoses (irritant and allergic contact dermatitis, lichen planus, lichen sclerosus, seborrheic dermatitis, psoriasis), premalignant and malignant conditions (vulval intraepithelial neoplasia (VIN), squamous cell carcinoma, basal cell carcinoma, vulval melanoma, extramammary Paget's disease), and pigmentary disorders (vitiligo, post-inflammatory hypopigmentation, naevoid lesions)[1,8,9].

NVGD often present diagnostic challenges and impact both physical and emotional health. Addressing potential aggravating factors can improve patient comfort and quality of life. This study aims to analyze the clinical patterns of NVGD and explore relevant epidemiological correlations.

Objectives

Primary Objective: To study the clinical profile of female patients with NVGD in a tertiary care hospital.

Secondary Objective: To provide proper counselling and treatment to these patients.

Inclusion Criteria: All females who presented with non venereal lesions of genitalia and who were willing to participate in the study.

Exclusion Criteria: Cases who had venereal diseases (the six classical venereal diseases) and those who were not willing to take part, uncooperative patients or patients who were unable to understand the study protocol.

Material and Methods

This was a cross-sectional study. All the women who attended the Department of Dermatology, Venereology and Leprosy, SMGS Hospital, Government Medical College, Jammu, out of which 140 female patients met the inclusion and exclusion criteria over a period of 1 year (November 2019 to November 2020) were enrolled in the study by using universal sampling method. Ethical clearance was obtained (IEC/GMC/2021/394). Informed consent, including permission for clinical photography was obtained. All patients underwent detailed history-taking, complete cutaneous examination including vulva, perineal skin, nails, scalp, and oral mucosa and systemic examination to identify any associated lesions. Routine investigations included complete hemogram and urine examination. Additional tests such as liver function tests, renal function tests, lipid profile, chest X-ray (PA view), and ECG were performed when indicated.In suspected cases, serological tests like VDRL and HIV were done to rule out sexually transmitted infections. Other investigations tailored to clinical presentation included culture and pH assessment of vaginal discharge, Gram stain, KOH mount (for dermatophytosis), wet mounts, amine test, Tzanck smear (for genital ulcers), HBsAg and HIV 1&2 by ELISA, dermatoscopy, patch testing, direct immunofluorescence, and vulval punch biopsy.

Statistical Methods: Data were compiled in Microsoft Excel and analyzed using SPSS version 20.0 (SPSS Inc., Chicago, IL, USA). Descriptive statistics such as frequencies and percentages were used to summarize demographic and clinical characteristics.

Results

In our study a total of 140 patients were evaluated.The age of patients ranged from 16-80 years with mean age 38.3±15.26. Reproductive females (20-29) years were the most common age group and overall, nonvenereal genital dermatoses were seen predominantly in the young age group.

The commonest presenting complaint in our study was itchy plaque in 74 patients (53.1%), followed by vulval pruritus with discharge in 16 (11.4%), pruritus with burning in 17 (12.1%), itchy papules in 12 (8.6%), painful plaques in 9 (6.4%), tense blisters in 3 (2.1%), pain in 2 (1.4)%, painful nodule in 2 (1.4%) and swelling in 1 (0.7%).

60(42.8%) patients had lesions localised only to genitalia. 57 (40.7%) of the patients had lesions on genitalia as well as other body site.12 (8.6%) patients had orogenital lesions seen in pemphigus and lichen planus. 11 (7.9%) had oral+ genital+cutaneous involvement.

KOH mount was positive in 62 (44.3%) of the patients of Vulvovaginal candidiasis and Tinea cruris. Gram stain

Table 1: Age Distribution of Study Patients.

Age (Years)	Number	Percentage (%)
< 20	13	9.3
20-29	39	27.9
30-39	21	15.0
40-49	27	19.3
50-59	28	20.0
≥ 60	12	8.6
Total	140	100
Mean±SD (Range)=38.3±15.26 (16-80)		

Table 2 : List of Genital Dermatoses Observed in Our Study.

Genital Dermatoses	Number	Percentage (%)
Tinea cruris	50	35.7
Vulval candidiasis	16	11.4
Scabies	12	8.6
Lichen sclerosus	10	7.1
Lichen planus	8	5.7
Contact Eczema	7	5.0
Other infections	6	4.3
Pemphigus vulgaris	5	3.6
Bullous pemphigoid	3	2.1
Psoriasis	2	1.4
Hidradenitis suppurativa	2	1.4
Lichen simplex chronicus	2	1.4
Seborrheic dermatitis	2	1.4
Vitiligo	3	2.1
Pemphigus vegetans	1	0.7
Linear IgA disease	1	0.7
VIN	1	0.7
Benign variants	9	6.4
Total	**140**	**100**

was positive in 2 (1.4%) patients of furunculosis. Tzanck smear was conclusive in 16 (11.4%) comprising pemphigus vulgaris, bullous pemphigoid, herpes zoster, pemphigus vegetans and Linear IgA disease and histopathology was conclusive in 17 (12.1%) cases.

The most common genital dermatoses observed was Tinea cruris in 50 (35.7%), followed by Vulval candidiasis in 16 (11.4%). Scabies was the most common infestation seen in 12 (8.6%). Other infections observed were Furunculosis seen in 4 (2.9%) of the patients and Herpes zoster in 2 (1.4%).

Lichen sclerosus was the commonest dermatoses among the inflammatory group seen in 10 (7.1%) of the cases, followed by lichen planus in 8 (5.7%). Other cases seen were contact eczema in 7 (5%), pemphigus vulgaris in 5 (3.6%) bullous pemphigoid in 3 (2.1%), Vitiligo in 3 (2.1%), psoriasis in 2 (1.4%) , LSC in 2 (1.4%), SD in 2 (1.4%), HS and Seborrheic dermatitis in 2 (1.4%) each and pemphigus vegetans and Linear IgA disease in 1 (0.7%) each.

A case of vulval intraepithelial neoplasia was seen (0.7%).

The benign variants seen were 9 (6.4%) in number and included vestibular papillomatosis, Vulval skin tag, Angiokeratoma, Bartholin's cyst, melanocytic nevus, Vulval varicosities, lymphangiectasia, Seborrheic keratosis and Vulval calcinosis (Figures 1-4)

Discussion

Non-venereal genital dermatoses (NVGD) encompass a wide range of conditions with varied etiology. Diagnosis and management in the genital region can be challenging due to altered morphology, local environmental factors, and overlapping symptoms. A thorough understanding of these presentations is essential for effective management.

In our study, patients ranged from 16 to 80 years of age, with a mean of 38.3±15.26 years, consistent with studies by Elfaituri *et al* [10]., Prasad *et al* [11]., and Shaik *et al* [12]., where the average age was close to 38 years. Shinde *et al* [13]. also reported a similar age distribution.

The most common presenting complaint was itchy plaques in 74 patients (53.1%), followed by burning, discharge, and papules. Singh *et al*.[1] and Mondal *et al*.[14] reported similar symptoms, whereas Harlow *et al*. found vulvar pain to be most frequent (12%).

Genitocrural involvement was most common (40%), followed by labia majora and mons pubis, unlike the findings of Muktamani *et al*.[15] and Singh *et al*.[1], who reported labia majora as the most involved site in 64% and 68.6% cases, respectively.

We observed 27 different NVGD types. Infections and infestations were most frequent (60%), followed by inflammatory dermatoses (32.8%), benign variants (6.4%), and malignancies (0.7%). These results align with Sivayadevi *et al*[5], who found infections in 39% of cases.

Tinea cruris (35.7%) was the most common condition, as also reported by Singh *et al*.[1] , though Khoo *et al*[16] . reported no such cases. Scabies (8.6%) and candidiasis (11.4%) were also frequent, comparable to findings by Babu *et al*[17]. and Sivayadevi *et al*[5], respectively.

Among inflammatory dermatoses, lichen sclerosus et atrophicus (LSA) was most common (7.1%). Prasad *et al*.[11] found a much higher prevalence (24.4%). Contact dermatitis accounted for 5% in our study, similar to Sivayadevi *et al*[5]. Patil *et al*[18]. noted rising cases linked to hygiene products.

Genital lichen planus was observed in 7.1%, similar to findings by Sivayadevi *et al*.[5] and Prasad *et al*.[11]. Pemphigus vulgaris (3.6%) was also noted, consistent with studies by Prasad et al [11].

Vitiligo was seen in 2.1%, lower than study by Singh *et al*.[1] reporting 15.8%. Seborrheic dermatitis (1.4%) and lichen simplex chronicus (1.4%) matched rates reported by Shinde *et al*[13] and Singh *et al*.[1]. Genital

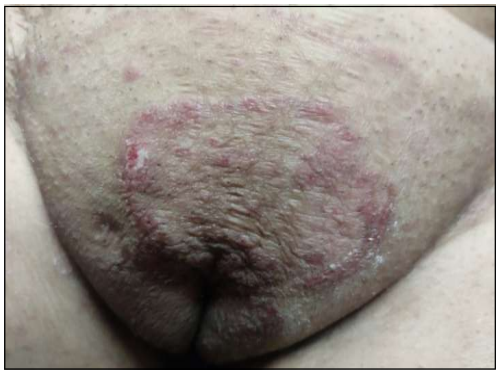

Figure 1: Tinea Cruris showing Erythematous Plaque with Central Clearing.

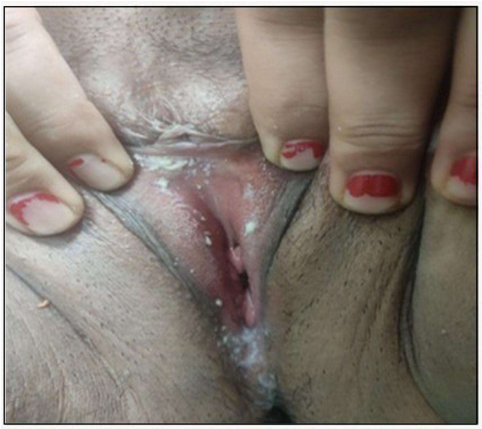

Figure 2: Vulvovaginal Candidiasis with Thick Curdy White Discharge.

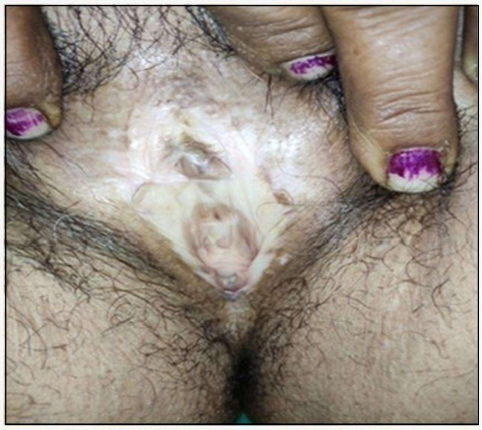

Figure 3: Lichen Sclerosus et Atrophicus with Atrophy of the Labia Majora and Clitoris.

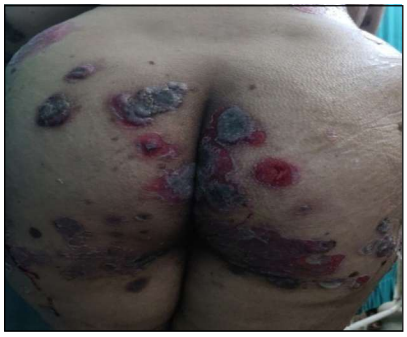

Figure 4: Pemphigus Vegetans showing Hypertrophic Vegetating Plaques.

psoriasis (1.4%) was comparable to Singh *et al*.[1] and Prasad *et al*.[11]. Hidradenitis suppurativa (1.4%) aligned with findings by Sivayadevi *et al*.[5]

Overall, the most common infections were dermatophytosis, candidiasis, and scabies correlating with Singh *et al*.[1] and Nyati *et al*[19] . Other dermatoses observed included lichen planus (5.7%), contact eczema (5%), pemphigus vulgaris (3.6%), furunculosis (2.9%), bullous pemphigoid (2.1%), vitiligo (2.1%), psoriasis (1.4%), herpes zoster (1.4%), hidradenitis suppurativa (1.4%), lichen simplex chronicus (1.4%), and seborrheic dermatitis (1.4%) in decreasing order of frequency. Rare cases included pemphigus vegetans (0.7%), angiokeratoma, Bartholin's cyst, melanocytic nevus, linear IgA disease, vulval calcinosis, vestibular papillomatosis, vulval varicosities, lymphangiectasia of the vulva, seborrheic keratosis, and vulval skin tag. No cases of pyogenic granuloma, pityriasis rosea, or autoinoculated molluscum contagiosum were recorded, in contrast to findings by Singh *et al*.[1]

Conclusion

In our study, most patients were of reproductive age, with tinea cruris being the most common non-venereal genital dermatosis and lichen sclerosus et atrophicus as the leading inflammatory condition. The NVGD had classical morphology and histopathology in most of the cases. Hence, it can be concluded that thorough knowledge about the morphology and histopathological features can aid in the correct diagnosis and management of these patients.

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Conflict of Interest: Nil

References

1. Singh G, Rathore BS, Bhardwaj A, Sharma C. Non venereal benign dermatoses of vulva in sexually active women: a clinical study. Int J Res Dermatol. 2016;2(2):25–9.
2. Hogade AS, Mishra S. A study of pattern of nonvenereal genital dermatoses of male attending skin OPD of tertiary centre in Kalaburagi. Int J Res Dermatol. 2017;3(3):407–10.
3. Kumar A, Pun J, Neupane D, Subedi S, Mohammad A, Sathian B. Non-veneral genital dermatoses: a study from western Nepal. Nepal J Dermatol Venereol Leprol. 2020;18(1):18–23.
4. Mroczkowski TF. Common nonvenereal genital lesions. Med Clin North Am. 1990;74(6):1507–28.
5. Sivayadevi P, Anandan H. A study of pattern of non-venereal genital dermatoses in female patients at a tertiary care centre. Int J Res Dermatol. 2019;5(1):134–8.
6. McKay M. Vulvar dermatoses: common problems in dermatological and gynaecological practice. Br J Clin Pract Suppl. 1990;1:5–10.
7. Lyoyd J, Crouch NS, Minto CL, Liao L, Creighton SM. Female genital appearance: 'normality' unfolds. BJOG. 2005;112:643–6.
8. Saraswat PK, Garg A, Mishra D, Garg S. A study of pattern of nonvenereal genital dermatoses of male attending skin OPD at a tertiary care centre. Indian J Sex Transm Dis AIDS. 2014;35(2):129–34.
9. Lewis F. Dermatoses of female genitalia. In: Griffiths CEM, Barker J, Bleiker T, Chalmers R, Creamer D, editors. Rook's Textbook of Dermatology. 9th ed. Oxford: Wiley Blackwell; 2016. p. 3155–96.
10. Elfaituri S. Vulvar dermatoses in Libyan adult patients. Clin Dermatol J. 2019;4(1):168.
11. Prasad AM, Babu AR, Shivakumar V. A clinical study of non-venereal genital dermatoses in women in a rural setup. Int J Med Public Health. 2020;10(1):29–33.
12. Shaik H, Konala S, Kolalapudi SA, Alluri R, Godha V, Navya B. Clinical and demographic patterns of vulval dermatoses and their impact on quality of life. Indian Dermatol Online J. 2022;14(1):44–9.
13. Shinde G, Popere S. A clinical study of non-venereal genital dermatoses of adults in a tertiary care centre. Int J Biomed Adv Res. 2017;8(4):147–51.
14. 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;26(3):276–82.
15. Muktamani G, Shivakumar V, Okade R. Non-venereal female genital dermatoses – a clinical study. J Med Sci Clin Res. 2014;2(11):2864–73.
16. Khoo LS, Cheong WK. Common genital dermatoses in male patients attending a public sexually transmitted disease clinic in Singapore. Ann Acad Med Singap. 1995;24:505–9.
17. Babu ANMM, Mathan R, Ramasamy PP. A clinical study of non-venereal genital dermatoses. J Evol Med Dent Sci. 2016;5(90):6694–7.
18. Patil S, Bhandarkar P, Deshmukh S. Irritant vulvar dermatoses due to cosmetic products: an emerging trend. Clin Dermatol J. 2022;5(1):42–8.
19. Nyati A, Agarwal P. Pattern of non-venereal dermatoses of female external genitalia in Rajasthan. Asian Pac J Health Sci. 2016;3(3):249–65.