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Original Research Article

To Determine the Clinico-Etiological and Epidemiological Pattern of Presentation of Non-Venereal Dermatoses in Male Genitalia

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Abstract

Aim: The aim of the present study was to determine the clinico-etiological and epidemiological pattern of presentation of non-venereal dermatoses in male genitalia.

Methods: This was a hospital based descriptive study. A series of 100 male patients over the age of 18 years with non-venereal dermatoses of external genitalia were screened among the patients attending Department of Skin & V. D, Nalanda Medical College & Hospital, Patna, Bihar, India from July 2020 to June 2021.

Results: The age of the patients ranged from 18 to 78 years with the mean age of 48 years. Majority were in the age group of 21-30 years (30%) followed by 31-40 years (27%). Infections and infestations group formed the majority (37%) followed by inflammatory disorders (15%), Benign variants (16%), Miscellaneous conditions, Malignancies (3%). The most common disorder was scabies which accounted for 19% followed by candidiasis and vitiligo 12% each.

Conclusion: Understanding the prevalence, clinical, and etiological aspects of non-venereal genital dermatoses help diagnose and educate patients about personal hygiene and social practices. Clinicians should be impartial while treating genital issues so patients feel comfortable seeking care. Venerophobia may be overcome by explaining the lesions' benignity. Early detection of premalignant and malignant disorders allows for less intrusive surgery and reduced morbidity.

Keywords: Non-venereal dermatoses, Male genitalia, Pattern

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Introduction

Dermatoses affecting genital regions are not necessarily sexually transmitted. They may be split into two groups: Venereal and nonvenereal dermatoses. The disorders, which are not sexually transmitted, are termed as nonvenereal dermatoses. Nonvenereal genital dermatoses, comprise a vast variety of disorders with different origin. They may either harm genitalia alone or may affect other body part aswell. [1]

The nonvenereal dermatoses may be categorised into five categories depending on pathogenesis: Inflammatory diseases (psoriasis, seborrheic dermatitis, lichen planus), infections and infestations (scabies, dermatophytosis), congenital disorders (median raphe cyst), benign abnormalities (angiokeratoma of Fordyce, sebaceous cyst), premalignant and malignant lesions (erythroplasia of Queyrat, Squamous cell carcinoma). [2] As these groupings contain numerous sorts of ailments, the diagnosis of diseases is rather complex.

Genital dermatoses in adult men may be split into two categories: venereal and non-venereal. Between these two categories, the non-venereal is the more prevalent. Non-venereal genital dermatoses may be observed over the genitalia, and are not sexually transmitted. [3] Some of the illnesses are observed just in the genitalia such as balano-posthities and scrotal dermatitis while others are found in various body areas separate from the genital area, for example, vitiligo, psoriasis, etc. They may be inflammatory (psoriasis) or autoimmune (vitiligo). others of them are exogenous (contact dermatitis, fixed-drug eruption), while others are infectious (scabies, tinea). [4] The pattern of genital dermatoses changes according to age, since malignancies frequently occur in the elderly.[4]

Genital disorders caused by non-STD dermatoses commonly mirror those caused by sexually transmitted infections, thus it is necessary to be aware of that. It creates significant anxiety in patients4 since venereal disease is generally the patient's major worry.
The purpose of the current research was to identify the clinico- etiological and epidemiological pattern of presentation of non-venereal dermatoses in male genitalia.

Materials and Methods

This was a hospital based descriptive study.A series of 100 male patients over the age of 18 years with non-venereal dermatoses of external genitalia were screened among the patients attending Department of Skin & V.D., Nalanda Medical College & Hospital, Patna, Bihar, India from July 2020 to June 2021.

Patients with any sexually transmitted infection were not included in the research. Following the patient's informed consent, a comprehensive history was obtained, including information on the patient's age, education, marital status, sexual practices, circumcision status, history of trauma, drug use, use of topical creams, recurrence of symptoms, initial site of infection, duration and progression of the disease, and any associated medical or skin disorders. An first comprehensive and systematic evaluation was conducted. The examiner assessed the external reproductive organs, anus, and the area around the anus.

A thorough evaluation of the skin and mucous membranes was conducted to identify any abnormalities in other parts of the body. Gram's stain, KOH mount, Tzanck smear, patch test, and skin biopsy were performed as necessary to confirm the diagnosis. VDRL and HIV tests were conducted in suspected cases to exclude the presence of sexually transmitted diseases (STDs). The pertinent information on the patient, examination results, tests conducted, and diagnosis were documented in the standardised form. The data was organised into spreadsheets in Excel and analysed using SPSS version 22.

Results

Table 1: Age distribution of patients

Age in years	No. Of patients
<20	5
21-30	30
31-40	27
41-50	19
51-60	6
61-70	7
71-80	6

The age of the patients ranged from 18 to 78 years with the mean age of 48 years. Majority were in the age group of 21-30 years (30%) followed by 31-40 years (27%).

Table 2: Categorization of lesions based on etiology

Lesions	No. (%)
Benign conditions and physiological variants	
Pearly penile papules	10 (10%)
Lichen nitidus	1 (1%)
Angiokeratoma of Fordyce	2 (2%)
Acrochordons	1 (1%)
Seborrheic keratoses	2 (2%)
Infections & Infestations	
Scabies	19 (19%)
Candidiasis	12 (12%)
Furunculosis	3 (3%)
Tinea	2 (2%)
Phthriasis	1 (1%)
Inflammatory conditions	
Lichen planus	3 (3%)
Lichen sclerosus et atrophicus	2 (2%)
Psoriasis	2 (2%)
Contact dermatitis	4 (4%)

Scrotal dermatitis	3 (3%)
pemphigus	2 (2%)
Lymphangiectasia	2 (1%)
Fixed drug eruption	10 (5%)
Stevens-Johnson syndrome	5(2.5%)
Lichen simplex chronicus	9(4.5%)
Behcet's disease	1(0.5%)
Zoon's balanitis	1(0.5%)
Pre-malignant & malignant conditions	
Erythroplasia of Queyrat	1 (1%)
Squamous cell carcinoma	1 (1%)
Verrucous carcinoma	1 (1%)
Miscellaneous	
Vitiligo	12 (12%)
Sebaceous cyst	3 (3%)
Lupus vulgaris	1 (1%)

Infections and infestations group formed the majority (37%) followed by inflammatory disorders (15%), Benign variants (16%), Miscellaneous conditions, Malignancies (3%). The most common disorder was scabies which accounted for 19% followed by candidiasis and vitiligo 12% each.

Discussion

Fitzpatrick and Gentry [5] defined these dermatoses based on aetiology as 1) Benign abnormalities 2) congenital malformations 3) Trauma and artefacts 4) Inflammatory disorders 5) Non venereal illnesses and infestations 6) Benign tumours 7) Premalignant lesions 8) Malignant lesions 9) Miscellaneous lesions. Genital dermatoses give a problem in diagnosis since the morphology is affected by the particular environment of the genitalia such heat, friction and occlusion. Non-venereal genital dermatoses may not be confined to the genitalia alone but may also affect other parts of the body. So, checking the additional genital locations assists in the diagnosis. Even with benign tumours some people acquire venerophobia, cancer dread. Hence it is necessary to be aware of these conditions and to separate them from venereal illness. Clarifying the genuine and harmless characteristics of these lesions will alleviate this concern. Due to the negative perception around genital lesions, many patients avoid seeking medical help till the condition becomes painful. This delay in seeking treatment may be life-threatening, especially in cases of malignant lesions. [6]

The patients' ages varied from 18 to 78 years, with an average age of 48 years. The majority of individuals fell between the age range of 21-30 years, accounting for 30% of the total. This was followed by the age range of 31-40 years, which accounted for 27% of the total. These findings align with previous research conducted by Karthikeyan K et al [7] and Saraswat et al. [8] The bulk of cases (37%) were classified as infections and infestations, followed by inflammatory diseases (15%), benign variations (16%), miscellaneous ailments, and malignancies (3%). Scabies was the most prevalent condition, representing 19% of cases, followed by candidiasis and vitiligo, each accounting for 12%. In their research, Saraswat et al [8] reported a prevalence of 3% for genital psoriasis. However, it is important to note that all of these individuals also had lesions in other parts of their body. In their investigation, Acharya et al [9] saw five instances of psoriasis affecting the genitalia. Psoriasis may affect the genital area in around 30% of individuals. Lesions may arise only in this location in 2 to 5% of cases. [6] There have been several occurrences of lichen planus and psoriasis occurring specifically on the glans penis. [10-13] The reason may be attributed to Koebnerization, which occurs as a result of sexual intercourse, wearing tight clothing, or contact with urine.

Currently, superficial fungal infections are quite prevalent. While it may infect many parts of the body such as the crural areas, buttocks, face, scalp, and trunk, it unexpectedly has a limited ability to infect the genitalia. Our investigation revealed that 1.5% of the patients had a vaginal infection. It bears resemblance to a prior investigation when the percentage was 2%. [7] In other research, it has a slightly elevated percentage (10%). [14] Perhaps the over use of fixed-dose combo treatments containing topical corticosteroids might be a contributing factor to this phenomenon.

Conclusion

Understanding the frequency, clinical features, and causes of different non-venereal genital skin conditions is valuable for making a diagnosis and educating patients about the need of maintaining good personal hygiene and social practices. It is important for clinicians to maintain an impartial attitude while dealing with genital issues in order to instill confidence in patients and encourage them to seek medical assistance. Clarifying the genuine and harmless characteristics of the lesions can alleviate

venerophobia. Early detection of premalignant and malignant diseases enables the use of less invasive surgical procedures, leading to reduced morbidity for patients.

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