

## Prospective Observational Clinical Study of Non Venereal Diseases of Genitalia in a Tertiary Care Hospital.

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### Abstract:

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

**Materials and Methods:** The study was conducted on 200 patients with genital lesions of all age groups during the period of December 2016 to August 2018. 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 200 cases were analysed during the study period of December 2016 to August 2018. Most of the cases belong to the age group 21 - 30 years (23.5%). Males were slightly more than females. Most common non venereal genital dermatoses recorded were vitiligo(14%), the least number of cases were premalignant conditions(4%). Most of the patients belong to the category infections and infestations. Most common symptom presented by the patients was pruritus, most common primary lesion among the cases were plaques. **Keywords:** Non venereal diseases of genitalia, venereal diseases, genitalia.

Date of Submission: 22-12-2019

Date of Acceptance: 05-01-2020

### I. Introduction

Non-venereal dermatoses tend to get confused with sexually transmitted diseases, which may be responsible for considerable concern to the patients as well as to the physicians. Non-venereal dermatoses are often a diagnostic dilemma to the treating physician, who has to treat the condition effectively and also relieve the associated anxiety of the patient. A comprehensive understanding of the various clinical manifestations like etiology, disease course, associated malignancies and appropriate treatment options, is therefore essential. Determining the etiological or aggravating factor can save the patient from the distress of the persisting discomfort and restricted social life thereby significantly improving the Dermatology Life Quality Index (DLQI)<sup>1</sup>.

### II. Aims and Objectives

1. To study the clinical aspects of non-venereal diseases of genitalia.
2. To study the epidemiological aspects of non-venereal diseases pertaining to prevalence of individual dermatoses, age and sex of the individuals.

### III. Materials and Methods

This study was an observational prospective study which was conducted at department of DVL, Santhiram Medical College and General hospital, Nandyal from december 2016 to august 2018. All the patients who attended DVL outpatient department and those who were admitted in the wards having genital lesions were included.

The patients with following criteria were excluded from the study:

1. Patients who have received treatment for venereal disease previously.
2. Patients having active or history of venereal disease.
3. Patients with HIV, HBsAG positive status .
4. Patients with VDRL positive status.
5. Uncooperative patients or patients who are unable to understand the study protocol or give consent.

The study was conducted on 200 patients with genital lesions of all age groups during the period of December 2016 to August 2018. Informed written consent taken. Detailed history including age, sex, duration of the disease and the site of affection and history of sexual exposure were taken in a Pre structured proforma. Thorough General Physical and dermatological examination of genitalia and other body parts was done to see for associated lesions. When required, patients are subjected to investigations like complete blood counts, Blood sugar, KOH mount, Gram's staining, Culture and Biopsy. Data collected was analysed pertaining to clinical and epidemiological aspects (age, sex) and conclusions were drawn.

#### IV. Results

Total of 200 cases with non venereal diseases of genitalia were recorded from december 2016 to august 2018, of which 111 were males(55.5%), 89 were females(44.5%)(table 1). Predominance of patients were in the age group were 21 - 30 years(26.6%)(table 2). According to Fitzpatrick and Gentry classification<sup>10</sup>, most common were Infections and Infestations (34.5%), least common were premalignant conditions (4%)(table 3). In our study a total of 38 different non venereal diseases of genitalia were studied(table 4), most common non venereal genital dermatoses were vitiligo - 28(14%), followed by scabies - 26(13%), least common were premalignant conditions - 8(4%) which include erythroplasia of queyrat, LSA and pseudoepitheliomatous micaceous keratotic balanitis. Different non venereal genital dermatoses include vitiligo 28(14%), scabies 26(13%), lichen planus 11(5.5%), pearly penile papules 4(2%), acrochordons 4(2%), calcified scrotal cysts 8(4%), dermatophyte infections 10(5%), erythrasma 5(2.5%), psoriasis 7(3.5%), insect bite reactions 6(3%), irritant contact dermatitis 7(3.5%), fixed drug eruption 9(4.5%), stevens johnson syndrome 2(1%), toxic epidermal necrolysis 2(1%), pemphigus vulgaris 7(3.5%), angioedema 4(2%), paraphimosis 4(2%), erythroplasia of queyrat 1(0.5%), pseudoepitheliomatous micaceous keratotic balanitis 1(0.5%). Most common site of genitalia affected was scrotum in males and Labia majora in females. Most of the patients presented with pruritus at presentation. Most common primary lesions at presentation were plaques.

**Table 1: sex distribution**

SEX	NO.OF PATIENTS	PERCENTAGE
Females	89	44.5%
Males	111	55.5%
<b>Total</b>	<b>200</b>	<b>100%</b>

**Table 2: age distribution**

AGE GROUP	NO.OF PATIENTS	PERCENTAGE
0 - 10 YEARS	09	4.5%
11 - 20 YEARS	30	15%
21 - 30 YEARS	47	23.5%
31 - 40 YEARS	39	19.5%
41 - 50 YEARS	32	16%
51 - 60 YEARS	23	11.5%
61 - 70 YEARS	15	7.5%
71 - 80 YEARS	05	2.5%
<b>TOTAL</b>	<b>200</b>	<b>100%</b>

**Table 3: Fitzpatrick and Gentry classification of non venereal diseases of genitalia.**

<i>DERMATOSES</i>	<i>NO.OF CASES</i>	<i>%</i>
BENIGN AND NORMAL VARIANTS	23	11.5%
INFECTIONS & INFESTATIONS	69	34.5%
INFLAMMATORY DERMATOSES	37	18.5%
ADVERSE DRUG REACTIONS	13	6.5%
BULLOUS DISORDERS	10	5%
PREMALIGNANT CONDITIONS	08	4%
MISCELLANEOUS	40	20%
<b>TOTAL</b>	<b>200</b>	<b>100%</b>

**Table 4: Non venereal diseases of genitalia**

<i>GENITAL LESIONS</i>	<i>MALES</i>	<i>FEMALES</i>	<i>TOTAL (%)</i>
<b><u>BENIGN AND NORMAL VARIANTS</u></b>			
PEARLY PENILE PAPULES	4	0	4 (2%)
SKIN TAGS (ACROCHORDON)	1	3	4 (2%)
FORDYCE SPOTS	2	0	2 (1%)
MEDIAN RAPHE CYST	1	0	1 (0.5%)
ANGIOKERATOMA	1	1	2 (1%)
CALCIFIED SCROTAL CYSTS	8	0	8 (4%)
SCROTAL CALCINOSIS	2	0	2 (1%)
<b><u>INFECTIONS AND INFESTATIONS</u></b>			
SCABIES	24	2	26 (13%)
FOLLICULITIS	1	3	4 (2%)
ERYTHRASMA	1	4	5 (2.5%)
FOURNIER'S GANGRENE	2	0	2 (1%)
DERMATOPHYTE INFECTIONS	5	5	10 (5%)
VULVO VAGINAL CANDIDIASIS	0	5	5 (2.5%)
INTERTRIGO	1	5	6 (3%)
HERPES ZOSTER	0	1	1 (0.5%)
BALANOPOSTHITIS	3	0	3 (1.5%)
BACILLARY ANGIOMATOSIS	1	0	1 (0.5%)
MC*	1	5	6 (3%)
<b><u>INFLAMMATORY DERMATOSES</u></b>			
PSORIASIS	5	2	7 (3.5%)
LICHEN PLANUS	4	7	11 (5.5%)

INSECT BITE REACTIONS	3	3	6 (3%)
IRRITANT CONTACT DERMATITIS	4	3	7 (3.5%)
LSC*	2	2	4 (2%)
HIDRADENITIS SUPPURATIVA	0	2	2 (1%)
<b>ADVERSE DRUG REACTIONS</b>			
FDE*	4	5	9 (4.5%)
SJS*	1	1	2 (1%)
TEN*	2	0	2 (1%)
<b>BULLOUS DERMATOSES</b>			
PEMPHIGUS VULGARIS	2	5	7 (3.5%)
BULLOUS PEMPHEGOID	0	3	3 (1.5%)
<b>PREMALIGNANT CONDITIONS</b>			
ERYTHROPLASIA OF QUEYRAT	1	0	1 (0.5%)
LICHEN SCLEROSUS	2	4	6 (3%)
PEMKB*	1	0	1 (0.5%)
<b>MISCELLANEOUS DERMATOSES</b>			
VITILIGO	14	14	28 (14%)
URTICARIA WITH ANGIOEDEMA	2	2	4 (2%)
REITER'S DISEASE	1	0	1 (0.5%)
CIRCINATE BALANITIS	2	0	2 (1%)
PARAPHIMOSIS	4	0	4 (2%)
DARIER'S DISEASE	0	1	1 (0.5%)
<b>TOTAL</b>	<b>111</b>	<b>89</b>	<b>200 (100%)</b>

\*MC molluscum contagiosum, LSC lichen simplex chronicus, FDE fixed drug eruption, SJS steven johnson syndrome, TEN toxic epidermal necrolysis, PEKMB pseudoepitheliomatous keratotic micaceous balanitis

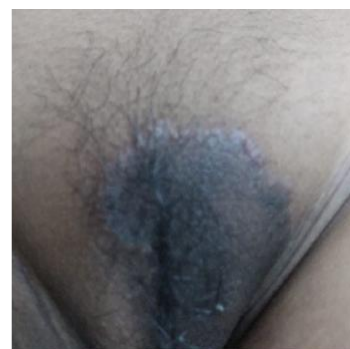
**Clinical photographs:**



Genital vitiligo



scabies



dermatophyte infection



Psoriasis



Pearly penile papules



calcified scrotal cysts



Toxic epidermal necrolysis



PEMKB



Paraphimosis



Angioedema



Pemphigus vulgaris



Erythroplasia of Queyrat

## V. Discussion

Non venereal genital dermatoses include a wide range of diseases with varied etiology and clinical presentations. This study was done on 200 patients with non venereal genital dermatoses attending DVL OPD Santhiram Medical College, Nandyal, during December 2016 to August 2018. Very few studies exist with regard to prevalence, classification and clinical pattern of different non venereal genital diseases. In this study, the age of the patients ranged from 6 months to 80 years, whereas the age ranged from 1 month to 80 years in the study conducted by Acharya et al<sup>4</sup> and 1 to 85 years in the study conducted by Singh N et al<sup>2</sup>. Out of 200 patients, 111 (55.5%) were males and 89 (44.5%) were females with male to female ratio of 1.24:1. Males were slightly more than females in this study, inferring the equal prevalence of non venereal genital dermatoses in both males and females, which is similar to the study done by Neerja puri et al<sup>5</sup>. Vitiligo was the most common non venereal disease affecting genitalia in this study, which is similar to the study done by Saraswat et al<sup>3</sup> and also to the study done by Thappa DM et al<sup>2</sup>, constituting 28 patients (14%). Second most common non venereal genital disease was Scabies 26 (13%), which was the most common disease in the study done by Acharya et al<sup>3</sup> and also in the study done by Maalik babu et al<sup>6</sup>. Infections and infestations were the most common non venereal diseases of genitalia in this study constituting 34.5%, which were also the most common in the study done by Acharya et al<sup>3</sup> and in the study done by Karthikeyan et al<sup>7</sup>. Scabies was most common constituting twenty six cases (23%), which is similar to the study done by Acharya et al<sup>3</sup> and Maalik babu et al<sup>6</sup>, where scabies was the commonest of all non venereal genital dermatoses. Dermatophytic infections were second most common among the infections constituting ten cases (5%), which is almost similar to the study done by Maalik babu et al<sup>6</sup>, among them 5 were males and 5 were females. 7 patients were encountered with psoriasis involving genitalia which constitutes 3.5% of all patients. Out of 7 patients 5 were males and 2 were females. six patients

had involvement of both genitals and extra genital skin, only one case had involvement of genitals only. Acharya et al<sup>3</sup> and Singh G et al<sup>8</sup> reported 5 patients with psoriasis affecting genitalia each. 17 cases were reported by Geeta Shinde et al<sup>9</sup>:

In this study calcified scrotal sebaceous cysts were 8(4%), which is almost similar to the study done by Saraswat et al<sup>4</sup> and 6 patients were reported by Maalik babu et al<sup>6</sup>. Most of the patients belonged to the age group 21 - 30 years (50%). Most of the patients presented with pruritus and nodules over the scrotum. There were no malignant conditions encountered in our study.

## VI. Conclusion

Common non venereal genital dermatoses were Vitiligo, Scabies, Lichen planus, Fixed drug eruption and psoriasis, among them the most common non venereal dermatoses was vitiligo. Most of the patients belong to Infections and Infestations. There were no malignant conditions encountered in this study. Most of the patients presented with pruritus at presentation. This study helps in understanding the etiological causes of non venereal genital dermatoses and their pattern in this region. This study highlights the importance of diagnosing common non venereal genital dermatoses and helps in avoiding the general misconception that all genital lesions are sexually transmitted.

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Dr. Preetham Pottipati.et.al. "Prospective Observational Clinical Study of Non Venereal Diseases of Genitalia in a Tertiary Care Hospital." *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, 19(1), 2020, pp. 77-82.