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Clinico-epidemiological assessment of all genital dermatoses in adult males- a hospital based observational study

[1]Dr. Ramesh Rebari, Resident Doctor, Department of Dermatology, Venereology and Leprology Mahatma Gandhi Medical College and Hospital, Jaipur, Rajasthan, India

[2]Dr. Sankalp Awasthi, Professor, Department of Dermatology, Venereology and Leprology Mahatma Gandhi Medical College and Hospital, Jaipur, Rajasthan, India

[3]Dr. Manisha Nijhawan, Professor& Head of Department, Department of Dermatology, Venereology and Leprology Mahatma Gandhi Medical College and Hospital, Jaipur, Rajasthan, India

[4]Dr. Manish Rijhwani, Associate Professor, Department of Dermatology, Venereology and Leprology Mahatma Gandhi Medical College and Hospital, Jaipur, Rajasthan, India

[5]Dr. Shivi Nijhawan, Assistant Professor, Department of Dermatology, Venereology and Leprology Mahatma Gandhi Medical College and Hospital, Jaipur, Rajasthan, India

[6]Dr. Priyanka Sharma, Resident Doctor, Department of Dermatology, Venereology and Leprology Mahatma Gandhi Medical College and Hospital, Jaipur, Rajasthan, India

Corresponding Author: Dr. Sankalp Awasthi, Professor, Department of Dermatology, Venereology and Leprology Mahatma Gandhi Medical College and Hospital, Jaipur, Rajasthan, India.

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Abstract

Introduction: Male genital dermatoses are a common problem encountered in a Dermatology OPD. It is a general belief that genital dermatoses are poorly understood, difficult to diagnose and treat. But careful history taking, evaluation and complete dermatological examination along with relevant investigations enable for easy diagnosis in most of the cases. This study is an overview of patterns of dermatoses affecting male genitalia.

Materials and Methods: After obtaining consent, 847 adult males ranging from 18 to 81 years with genital dermatoses, confirmed by relevant investigations were enrolled in the present study.

Results: Out of 847 adult males, 17% of patients had venereal dermatoses and 31.1% of patients had non-venereal dermatoses while 51.94% had dermatoses which could be due to venereal and nonvenereal causes and were grouped as mixed entities. Among venereal dermatoses, viral etiology accounted for 62.5% and bacterial infections 37.5% cases. Among non-infective dermatoses, inflammatory conditions (41.06%) and drug induced dermatoses (21.67%) were commonest. In mixed entities parasitic and arthropod infestations (70.22%) and fungal infection (25.22%) were predominant.

Conclusion: Parasitic and Arthropod infestations are more prevalent in adult males reflecting the status of health, poor personal hygiene & low socio-economic status. This study was helpful in knowing the clinico-etiological characteristics and management of various male genital dermatoses and distinguishing them from venereal dermatoses which helped in reducing anxiety and stigma among the patients.

Keyword: Venereal, Nonvenereal, Genitalia.

Introduction

Genital lesions may be manifestations of venereal or non-venereal genital dermatoses and many can be due to both venereal and non-venereal causes (mixed entities). Venereal dermatoses are sexually transmitted infections while non-venereal genital dermatoses are acquired through different sources.

Genital dermatoses may confer persistent discomfort in the form of chronic itch or pain. It may interfere with normal activities of daily living. It may also lead to relationship problems due to sexual hesitancy. The incidence of sexually transmitted infections is rising which may be attributed to sexual encounters at an early age and multiple partners.[1]

A comprehensive understanding of the various presentations, their causes and appropriate management options is therefore essential.

Due to constant changes in the attributing factors and trends of these diseases, this study was carried out to study the recent clinico-epidemiological patterns of these diseases.

Material and method

This is a hospital based prospective study conducted in department of Dermatology, Venereology and Leprology at Mahatma Gandhi Medical College and Hospital, Jaipur (Rajasthan). An informed consent was obtained from all the 847 adult male patients. Detailed clinical history, complete physical examination & relevant investigations were done to establish the diagnosis. The data was analysed and tabulated.

Results

This study included 847 adult male patients (Table.1, Graph.1) ranging from 18 to 81 years with a mean age of 37.78 years. The most common age group involved was 25-39 years. The dermatoses involving the genitalia were divided into venereal dermatoses, non-venereal dermatoses and mixed entities. Venereal genital conditions accounted for 17% cases, non-venereal conditions for 31.1% cases and mixed ones for 51.94% cases.

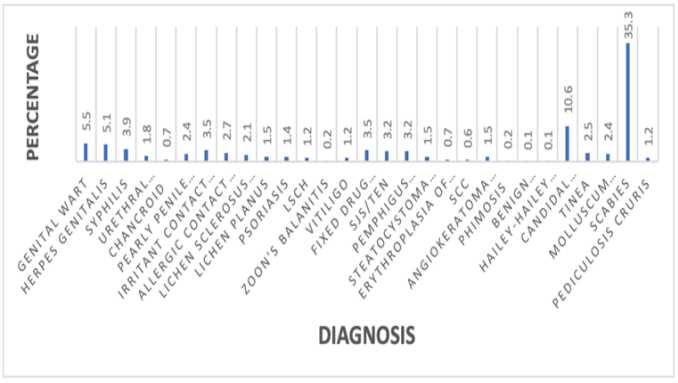
Most of the patients in the study were field/manual workers (25.86%, 219 cases) followed by business professionals (16.06%, 136 cases). In our study, we reported that 80.87% cases had heterosexual contact, 2.36% cases had homosexual contact and 16.76% cases had no sexual contact. In homosexuals, most common dermatoses was syphilis (40%) followed by genital warts (35%) and herpes genitalis (20%).

Table.1 Result

		Diagnosis	Number	Percentage
Venereal	Viral infections (62.50%)	Genital wart	47	5.5
		Herpes genitalis	43	5.1
N=144	Bacterial infections (37.50%)	Syphilis	33	3.9

(17%)		Urethral discharge	15	1.8
		Chancroid	6	0.7
Non-venereal N=263 (31.1%)				
	Inflammatory dermatoses (41.06%)	Irritant contact dermatitis	30	3.5
		Allergic contact dermatitis	23	2.7
		Lichen sclerosus et atrophicus	18	2.1
		Lichen planus	13	1.5
		Psoriasis	12	1.4
		LSCH	10	1.2
		Zoon's balanitis	2	0.2
	Drug induced (21.67%)	Fixed drug eruption	30	3.5
		SJS/TEN	27	3.2
	Immunobullous (10.26%)	Pemphigus vulgaris	27	3.2
	Physiological (7.6%)	Pearly penile papules	20	2.4
	Benign tumor (4.94%)	Steatocystoma multiplex	13	1.5
	Precancerous & carcinoma in situ (4.18%)	Erythroplasia of queyrat	6	0.7
		SCC	5	0.6
	Pigmentary (3.80%)	Vitiligo	10	1.2
	Others (6.4%)	Angiokeratoma of fordyce of scrotum	13	1.5
		Phimosis	2	0.2
		Benign melanocytic nevus	1	0.1
		Hailey-Hailey disease	1	0.1
Mixed N=440 (51.94%)	Parasite and arthropod infestations (70.22%)	Scabies	299	35.3
		Pediculosis cruris	10	1.2
	Fungal infections (25.22%)	Candida balanoposthitis	90	10.6
		Tinea	21	2.5
	Viral infections (4.54%)	Molluscum contagiosum	20	2.4

Graph 1: Distribution of study participants depending upon diagnosis



Amongst the venereal dermatosis, viral etiology (62.5%) {genital warts, (52.22%, 47 cases) and herpes genitalis (47.77%, 43 cases)} was common than bacterial etiology (37.5%) {syphilis (61.11%, 33 cases), urethral discharge (27.78%, 15 cases) [Neisseria gonorrhoea (60%, 9 cases) and chlamydia trachomatis (40%, 6 cases)] and chancroid (11.11%, 6 cases).}

Among the non-venereal dermatoses, Inflammatory disorders (41.06%) predominated [irritant contact dermatitis (27.77%, 30 cases), allergic contact dermatitis

(21.29%, 23 cases), lichen sclerosus et atrophicus (16.66%, 18 cases), lichen planus (12.03%, 13 cases), psoriasis (11.11%, 12 cases), lichen simplex chronicus (9.2%, 10 cases) and zoon's balanitis (1.8%, 2 cases)] followed by drug induced conditions (21.67%) [fixed drug eruption (52.63%, 30 cases) and stevens-johnson syndrome/toxic epidermal necrolysis (47.36%, 27 cases)]. Among the immunobullous disorders, physiological condition and Benign tumor only dermatosis observed was pemphigus vulgaris (10.26%, 27 cases), pearly penile papules (7.6%, 20 cases) and steatocystoma multiplex (4.9%, 13 cases) respectively. Precancerous lesions & carcinoma in situ (4.18%) included erythroplasia of queyrat (54.54%, 6 cases) and SCC (45.45%, 5 cases). Among pigmentary disorders only vitiligo was seen (3.8%, 10 cases). Other conditions (6.4%) included angiokeratoma of fordyce of scrotum (1.50%, 13 cases), phimosis (0.20%, 2 cases), benign melanocytic nevus (0.1%, 1 case) and hailey-hailey disease (0.1%, 1 case).

Among the mixed entities, Parasite and arthropod infestations (70.2%) [scabies (96.7%, 299 cases) and pediculosis cruris (3.23%, 10 cases)], fungal infections (25.2%) [candidal balanoposthitis (81.08%, 90 cases) and tinea (18.91%, 21 cases)] and viral infections [molluscum contagiosum (4.5%, 20 cases)] were commonest.

Discussion

Genital dermatosis often pose a diagnostic dilemma to the treating physician, who has to effectively manage & allay the anxiety associated with the condition. Contrary to popular belief, all lesions on genitalia are not manifestations of venereal diseases. The prevalence and pattern of certain skin diseases in genital area can reflect the status of health, personal hygiene, external environment and socio-economic status.

In our study, the age of patients presenting with genital dermatoses ranged from 18 to 81 years (mean= 37.78 years). In a study conducted by P. Sandeep Kumar et al. [2] the age of the patients ranged from 18-78 years (mean age 48 years). In a study conducted by Neerja Puri et al [3] the mean age of the patients was 38 years which was similar to results of our study.

In our study, 20.77% (176) patients had multiple sexual partners and genital wart (9.6%) and herpes genitalis (8.5%) were commonest manifestation in those patients and this was comparable to the study conducted by Gullette et al [4] who observed that 39.3% patients had multiple sexual partners. It was observed that the proportion of sexually transmitted infections was higher in patients who had multiple sexual partners because of high-risk sexual behaviour.

91.97% (779) patients were uncircumcised. Most common genital dermatoses in uncircumcised males was scabies (33.76%), followed by genital warts (5.7%) and syphilis (4.2%) while in the circumcised males, scabies (52.9%) followed by pemphigus vulgaris (10.2%) and allergic contact dermatitis (8.8%) were commonest. Our results slightly differed from a study conducted by Ealearon M et al. [5] where most cases of inflammatory dermatoses were diagnosed in uncircumcised men, suggesting that circumcision protects against inflammatory dermatoses.

In our study, 17% cases (144) had venereal dermatoses, 31.1% had (263) non-venereal dermatoses and 51.94% (440 cases) had mixed entities which was in concordance with a study conducted by Nagireddy Himaja et al. [6] reported 13% cases of venereal, 38% non-venereal and 49% of mixed entities.

Venereal dermatoses included bacterial infections seen in 37.5% (22.9% syphilis, 10.4% urethral discharge, 4.1% chancroid) patients, while the study conducted by Shah

BJ et al [7] reported 5% cases of syphilis, Choudhary et al [8] reported 1% cases of chancroid and Banger H S et al [9] reported 5% cases of urethral discharge. In our study, viral infections were observed in 62.5% cases (32.6% genital warts and 29.8% herpes genitalis) while the study conducted by Arakkal GK et al [10] reported 8% cases of genital warts and Vora R et al [11] reported 7.9% cases of herpes genitalis to be the most common viral infections.Non-venereal dermatoses (31.1%, 263 cases) included physiological manifestation (7.6% pearly penile papules), inflammatory dermatoses (6.2% contact dermatitis, 2.1% lichen sclerosus et atrophicus, 1.5% lichen planus, 1.4% psoriasis vulgaris, , 1.2% lichen planus chronicus, 0.2% zoon's balanitis), pigmentary dermatoses (1.2% vitiligo), drug induced dermatoses (3.5% fixed drug eruption, 3.2% steven johnson syndrome/ toxic epidermal necrolysis), immunobullous dermatoses (3.2% pemphigus vulgaris), benign tumours (1.5% Steatocystoma multiplex), precancerous and carcinoma in situ (0.7% erythroplasia of queyrat, 0.6% squamous cell carcinoma) and others (1.5% angiokeratoma of fordyce of scrotum, 0.1% hailey-hailey disease and 0.1% benign melanocytic nevus). A study conducted by Nagireddy Himaja et al [6] reported 38% cases of non-venereal dermatoses which is in concordance with our study.

Mixed entities (51.94%, 440 cases) included parasitic & arthropods infestation (67.9% scabies and 2.2% pediculosis) which is comparable to study conducted by Jain V et al[12] in which 38% scabies and 4% pediculosis were reported. Prevalence of fungal infections (25.2% candidal balanoposthitis and 4.7% tinea) was in concordance with a study conducted by Vora et al[11] in which 16% candidal balanoposthitis and in study by Shah BJ et al [7] 6% cases of tinea were reported. Number of patients with viral infections (4.5% molluscum contagiosum) was comparable with a study conducted by Arakkal GK et al [10] which reported 4% cases of molluscum contagiosum.

Conclusion

Male genital dermatoses are more prevalent among sexually active males and has more or less uniform clinical pattern. Dermatoses ranged from infectious to inflammatory and benign to malignant disorders. Maximum number of dermatoses in males are of infectious etiology and require a targeted therapeutic approach. Objective of the study was to educate the male patients to overcome the stigma associated with genital dermatoses (especially due to venereal causes) and provide confidence to seek medical help which was achieved up to an extent. This study was helpful in knowing the clinico-etiological characteristics and management of various male genital dermatoses and distinguishing them from venereal dermatoses which helped in reducing anxiety and stigma among the patients.

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