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Original Research Article

A retrospective study on the incidence of non-venereal genital dermatoses in patients attending STI clinic at a tertiary care centre

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ABSTRACT

Background: To study the clinical and epidemiological pattern of occurrence of non-venereal genital dermatoses among the patients attending STI clinic. Also an attempt was made to know the level of awareness among the patients studied and the level of psychological impact on the affected persons before they were diagnosed as anon venerealdermatoses.
Methods: A study was conducted among 125 patients who attended the STI Clinic in a tertiary care center in a period of 6 months. Detailed history was taken along with complete physical examination and local examination.
Results: 125 patients attended the STI Clinic. Among them 75 patients [40 males and 35 females] were diagnosed to have Non venereal genital dermatoses. A total of 14 different non venereal dermatoses were observed in our study The commonest age group affected were in the age group of 30-40 year. The most common non-venereal dermatoses in females in our study were Lichen sclerosuset atrophicus and in males were fixed drug eruptions Pearly penile papules. Mild anxiety and concern about the genital lesions were found in almost all the males and females.
Conclusions: A prompt and correct diagnosis of non-venereal genital dermatoses needs a greater clinical acumen along with various investigative methods Patient must be treated as a whole rather than treating the disease alone. The complete successful outcome lies not only in treating the disease but also treating the patient as a whole allying his undue fears, stress and misconceptions.

Keywords: Non venereal, Genital dermatoses, Venerophobia, Sexual counselling

INTRODUCTION

Significant percentage of people attending a STI clinic is diagnosed with a wide array of disorders which are not manifestations of a truly sexually transmitted disease. Majority of such patients are primarily seen by Gynaecologists, Obstetricians, Urologists or Family physicians and finally referred to dermatologists for expert opinion. Non-venereal dermatoses of female genitalia include inflammatory cutaneous disorders (psoriasis, lichen planus, lichen sclerosus), autoimmune (vitiligo), multisystem diseases (Behcet syndrome, Crohn disease), exogenous (contact dermatitis, fixed drug eruption), and benign and malignant neoplasms (extramammary Paget disease).[1-3] The non- venereal dermatoses in males encompasses two group of disorders.[4,5] Group one consists of disorders that are seen only in the genitalia like angiokeratoma of Fordyce, median raphae cyst, group two comprises of disorders that affect genitalia as well as other parts of the body. These conditions are very complex and their diagnosis very challenging. Among the common people any lesion in genitalia is something to be worried as it can be associated with a promiscuous act and causes a great deal

of mental distress and anxiety till they are diagnosed.[6] Aim of this study was to study the clinical and epidemiological pattern of occurrence of non-venereal genital dermatoses among the patients attending STI clinic and the level of distress and anxiety among them at a tertiary care center over a period of six months from April to September 2016.

METHODS

All the patients attending STI Clinic over a period of 6 months from April to September 2016 at Department of Dermato-venereology were included in our study. Detailed history was taken along with complete physical examination and local examination. Of the 125 patients who attended the clinic 75 patients were diagnosed with non-venereal genital dermatoses. Informed consent was taken from all the patients for the study and ethical committee clearance from hospital also was taken for the study. Patients having venereal disease were excluded from the study. Enquiry was made with regard to history of sexual exposure. The external genitalia were examined and findings were noted. A detailed physical examination was done to diagnose non genital lesions elsewhere in the body. VDRL and Elisa test for HIV were done in all the patients.

RESULTS

125 patients attended the STI Clinic in the studied period of 6 months. Among them 75 cases (40 males and 35 females) were diagnosed to have Non venereal genital dermatoses. The commonest age group affected was in the age group of 30-40 years. 65% of males and 80% of females were married. A total of 14 different non venereal dermatoses were observed in our study. The most common non venereal dermatoses observed in our study were fixed drug eruption and pearly penile papules in males and Lichen sclerosis etatrophicus in females. Mild anxiety and concern about the genital lesions were found in almost all the males and females. Suicidal tendency was noted in one male patient and was sent for psychiatric counselling and management.

Table 1: Age group.

Age range	No. of males	Percentage	No. of females	Percentage
<20	2	5%	1	2.8%
20-30	6	15%	5	14.3%
30-40	12	30%	13	37.1%
40-50	10	25%	8	22.8%
50-60	5	12.5%	5	14.3%
60-70	3	7.5%	2	5.7%
70-80	2	5%	1	2.8%
Total	40		35	

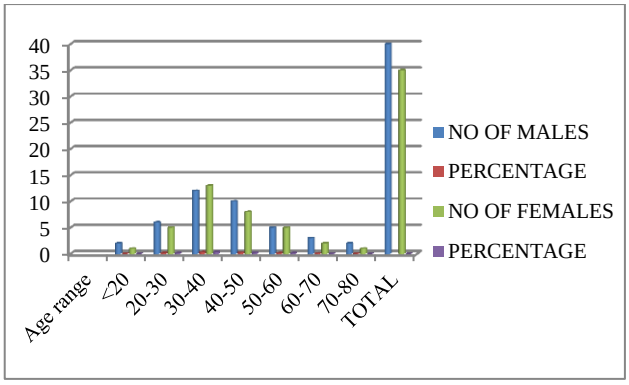

Figure 1: Bar diagram for sex and age range.

Table 2: Marital status.

	Males	%	Females	%
Unmarried	14	35 %	7	20%
Married	26	65%	28	80%

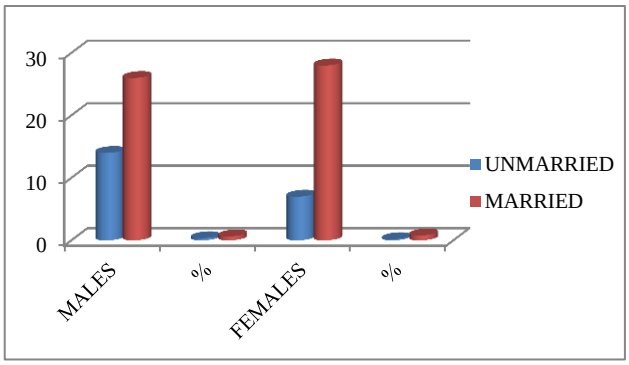

Figure 2: Bar diagram for marital status.

Table 3: Genital dermatoses in females.

S. no	Genital dermatoses Diagnosed	Number	Percentage
1	Haemolymphangioma	1	2.80%
2	Varicosities vulva	3	8.60%
3	Carcinoma	2	5.70%
4	Candidiasis	4	11.40%
5	Tinea	4	11.40%
6	Lsa	5	14.30%
7	Lichen simplex	2	5.70%
8	Extra mammary pagets	2	5.70%
9	Giant acrochordon	1	2.80%
10	Vitiligo	2	5.70%
11	Molluscumcontagiosum	2	5.70%
12	Giant epidermal nevi	1	2.80%
13	Lichen planus	4	11.40%
14	Bartholin's cyst	2	5.70%
	Total	35	100%

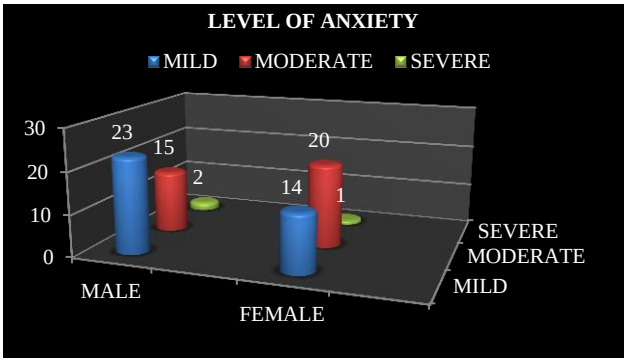

Figure 3: Bar diagram for level of anxiety.

Table 4: Genital dermatoses in males.

S no	Genital dermatoses diagnosed	Number	%
1	Tinea	4	10%
2	Scabies	4	10%
3	Vitiligo	2	5%
4	Scrotal Dermatitis	4	10%
5	Sebaceous cyst	2	5%
6	Fixed Drug Eruption	5	12.5%
7	Lichen Planus	2	5%
8	Zoon's Balanitis	2	5%
9	Psoriasis	3	7.5%
10	Pearly penile papule	5	12.5%
11	Carcinoma	1	5%
12	BXO	1	2.5%
13	Fournier's gangrene	3	7.5%
14	Balanoposthitis	2	2.5%
	Total	40	100%

Table 5: Level of anxiety.

	Male	%	Female	%
Mild	23	57.5%	14	40%
Moderate	15	37.5%	20	57.1%
Severe	2	5 %	1	2.9%

DISCUSSION

Out of the total 75 patients with non-venereal dermatoses, 40 were males and 35 were females. Males outnumbered females in the ratio 1.14:1.

In our study largest number of males and females were in the age group of 30 to 40 years, (30% males and 37.1% females) which is similar to study by Puri et al.[7] In a study by Karthigeyan et al, it belonged to 21-30 years age group.[8] 65% of males and 80 % of females were married in our study.

Figure 4: Lichen sclerosus et atrophicus.

The most common non-venereal dermatoses in females in our study were Lichen sclerosus et atrophicus (LSA) (5 cases, 14.3%) (Figure 4). Second most common dermatoses were candidiasis (Figure 5). Tinea and lichen planus were diagnosed in 4 patients each, (11.4%) and 3 patients suffered from varicosities of vulva (8.6%). 2 cases each of Vitiligo, lichen simplex, extra mammary Paget's, Vulval carcinoma and Bartholin's cyst were also noted in our study. Giant epidermal nevi and Haemolymphangioma (Figure 6) were diagnosed in one patient each.

Figure 5: Candidiasis.

Figure 6: Extra mammary Paget's disease and haemolymphangioma.

Figure 7: Fixed drug eruption.

Figure 8: Pearly penile papules.

The most common genital lesions in our study in males were due to fixed drug eruptions (12.5%) (Figure 7) and Pearly penile papule (12.5%) (Figure 8) noted in 5 patients each, which accounted for one fourth of the total patients, followed by Tinea, Scabies and Scrotal dermatitis in 10% each. The study by Acharya et al reported infections as the commonest disorder contributing 40% cases.[9] Genital vitiligoasthe most common disorder (16%) was observed in another study.[8] In our study Psoriasis and Fournier's gangrene (Figure 9) were seen in 3 patients (7.5%) followed by Vitiligo, Lichen planus, Zoon's balanitis, Ulcerative Balanoposthitis and Scrotal sebaceous cyst (Figure 9) in 2 patients (5%) each. Squamous cell Carcinoma and Balanitisxerotica were diagnosed in one patient each (2.5%). Khoo and Cheong had pearly penile papule asthe most common nonvenereal dermatoses (14.3%).[10]

Figure 9: Sebaceous cyst and Fournier's gangrene.

Lichen sclerosus commonly affects the anogenital region (85-98%) (Figure 3). Extragenital LS can be seen in 15-20 percent cases.[11] LSA is chronic inflammatory dermatoses characterised by atrophic plaque with a cellophane-paper like texture, depigmentation wrinkled and fragile surface.[2,5,11] Perianal lesions occur in 30 percent of cases.[12] Figure 11 appearance was present in three of our cases. LSA has two peak ages of presentation. Prepubertal girls and postmenopausal women, but is commonly present in peri or postmenopausal women.[13] In our study both the 2 cases in females were in postmenopausal females above 60 years.

Figure 10: Lichen planus.

Lichen planus can present as violaceous or erythematous papules or annular plaque or erosion. Lichen planus of Penis can affect the glans penis or occur on the penile shaft, as a single lesion or multiple lesions in a ring-like pattern. Erosive type is most commonly seen in isolated genital involvement, with most lesions around labia minora and clitoris in females. In Figure 10, Lichen planus was noted in four female and 2 male patients who also had generalised lichen planus lesions.

Figure 11: Vulval varicosity.

Vulval varicosity is an alarming disorder occuring in 10% of pregnant women, presenting as partially compressible, tortuous blue- coloured swelling having a 'bag of worms feel' on palpation. Colour doppler examination confirms the diagnosis.[14] Both females in our study were pregnant females in their second trimester (Figure 11)

Figure 12: Vitiligo.

Genital vitiligo could be an isolated diagnosis, or it can be associated with generalized vitiligo. Genital vitiligo accounted for 2% of male and 2% of female cases in our

study. Vitiligo is an acquired pigmentary disorder characterised by loss of melanocytes resulting in depigmentation affecting 0.5-1% of the world's population.[15-17] All the males (2) and females (2) had only genital vitiligo which was the cause of their concern and worry (Figure 12).

Figure 13: Bartholin's cyst.

Bartholin cyst is the most common cystic growth of the vulva.[18] Usually it presents as an asymptomatic, unilateral, nontender cystic swelling but increase in size causes pain and limitation of activity.[18,19] We observed 2 cases of Bartholin cysts in our study (Figure 13).

Figure 14: Tineacruris and scabies.

Infection and infestation contributed to significant number of Non- venereal dermatoses in our study in both males and females like Tinea, Molluscum contagiosum and Scabies. Tinea constituted the major disease diagnosed. Tinea was the major non venereal dermatoses affecting in a study by Nyati and Agarwal (30%). Molluscum contagiosum is very common disorder usually as a part of generalised eruption.[20] It is unusual to have isolated involvement of vulva. In adults, molluscum over vulva is a sexually transmitted disease.[20] We observed one case of molluscumcontagiosum in an 36 year old female (Figure 14).

Figure 15: Psoriasis.

Pearly penile papule is a common disorder found in up to 50% of men.[21] They were present in 12.5% cases in our study making it the commonest disorder diagnosed in males along with fixed drug eruption in our study (Figure 8). This is almost similar to the study conducted by Khoo and Cheong.[10] They are misdiagnosed as warts and ectopic sebaceous gland of Fordyce.[5] Patients must be convinced about the benign nature of the disease, otherwise it can cause a lot of mental stress to them as in one patient in our study. A diagnosis of PPP is not always accepted by the patients. In patients with venerophobia or in patients who wants them removed for cosmetic reasons methods like CO_2 or Nd:YAG laser vaporization, cryosurgery, and rarely curettage or electrosurgery or laser are used.[22,23]

Figure 16: Zoon's balanitis.

Fixed drug eruptions were observed in 12.5% of cases in our study as the most common disorder. This is in contrast with Karthikeyan et al, where only 3 cases had FDE and all of them because of cotrimoxazole (Figure 7).[8] NSAID'S, Carbamazepine, Ciprofloxacin were the commonest drugs implicated as causative factor in our study. Half of our patients with FDE also presented with oral lesions.

Psoriasis of ano-genital region can present alone or with generalised lesions (Figure 15). In general psoriasis affects 2% of general population. Genital appearance is very challenging to interpret.[5] Psoriasis was encountered in 7.5% (3 males) cases in our study along with generalised lesions. Karthikeyan et al reported a solitary case of psoriasis of glans penis while Acharya et al reported 5 cases of psoriasis involving genitalia.[8,9]

Figure 17: Vulval carcinoma.

Zoon′s balanitis or plasma cell balanitis (Figure 16) was observed in 5% cases in this study that had not been reported by Acharya et al, Khoo and Cheong, Karthikeyan et al.[8,9] It is a disorder of elderly, uncircumcised males, the etiology remains unknown.[24]

Squamous cell carcinoma (SCC) of vulva is a disease of postmenopausal women (Figure 17). Vulvar carcinoma is rare with an incidence of 1-2/100,000 women per year.[25,26] Penile cancer is one of the most common genitourinary cancer affecting mostly elderly, uncircumcised males with history of smoking. Most patients present at an advanced age. The incidence of Vulval SCC increases with age, the risk of malignancy increasing to 10 fold above 75 years.[5,27,28] 2 females and one male in our study were diagnosed as cases of vulval carcinoma and penile carcinoma respectively.

Figure 18: Giant fibroepithelial polyp.

Giant Fibro epithelial stromal polyps are very rare benign, mesenchymal lesions that typically occur in women of child-bearing age.[29,30] These polyps have a predilection for the vulval region (Figure 18). One case of such lesion was seen in one female in our study which was surgically removed allying the distress and worry in the female who believed that she had got a malignant lesion.

Venereophobia is an anxiety-related disorder that includes fear to sexually transmitted infections, abnormal disease conviction, and factitious STIs and AIDS.[31] In the present study, venereophobia was present in 2 males diagnosed with isolated genital vitiligo and one with pearly penile papule and 1 female with LSA. A morbid fear of venereal disease was more common among the males along with guilt and low self-esteem. It is our prime duty to ally the fear among these people who have a benign lesions or non STI's, but with strong conviction that they have a STD. Severe psychiatric breakouts and depressions, marital disharmony or even suicidal tendencies can be averted if we intervene at the right time with right diagnosis.

Bier spots are small, irregular, hypo pigmented spots that are usually found on the arms and legs of young adults. It can sometime develop on genital areas like penis. They are thought to be caused by vasoconstriction in small vessels which may be due to anatomical and functional damage to the small vessels of the skin. Some papers have associated biers spots with systemic disease such as scleroderma renal crisis, lymphoma and mixed cryoglobulinemia.[32,33] We did not observe this diagnosis among the patients studied. This very rare phenomenon which can be observed in people also poses a lot of concern and worry among the patients.

Mild anxiety and concern about the genital lesions were found in almost all the males and females. 2 unmarried males with lesion of genital vitiligo and pearly penile papule were convinced that a prior history of exposure and self-masturbation were the reason for their lesion. They have undergone multiple HIV and VDRL screening tests on monthly basis in different hospitals. Suicidal tendency was noted in one patient and was sent for psychiatric counselling and management. Similar concern and undue fear was seen in a 70 year old female diagnosed with LSA, her major concern being why she should get such disease at her age. They were all counseled and also referred for further Psychiatry workup.

CONCLUSION

A prompt and correct diagnosis of non- venereal genital dermatoses needs a greater clinical acumen along with various investigative methods. In our study we diagnosed only a narrow set of diagnosis among the wide array of clinical conditions that can affect genital skin. Patient must be treated as a whole rather than treating the disease alone. The importance of diagnosing such conditions not only lies in allying the anxiety among the people with venerophobia, but conditions like penile and vulval carcinomas if diagnosed at early stage can pave path for more complete treatment and survival of the patients. Doctors of various fields must have knowledge about such conditions in addition to Dermatovenereologists. Importance of counselling as the most essential part of the treatment plan must be stressed. The complete successful outcome lies not only in treating the disease but also treating the patient as a whole allying their undue fears, stress and misconceptions.

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