

Original Research Article

A study of pattern of nonvenereal genital dermatoses of male attending skin OPD of tertiary centre in Kalaburagi

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ABSTRACT

Background: Dermatoses involving genital areas are not always sexually transmitted. The diseases, which are not sexually transmitted, are referred as nonvenereal dermatoses. These disorders are the cause of considerable concern to patients causing mental distress and guilt feeling in them. Nonvenereal dermatoses are quiet often a diagnostic dilemma to the treating physician also. The aim was to determine clinical and epidemiological pattern of nonvenereal dermatoses of male external genitalia.

Methods: This was a descriptive study of 50 consecutive male patients over age of 18 years, with genital lesions of nonvenereal origin, attending the skin outpatient department of BTGH, Kalaburagi. Study was done for a period of 6 months.

Results: The study included 50 male patients with nonvenereal genital lesions. A total of 14 nonvenereal genital dermatoses were noted. The most common nonvenereal genital dermatoses were vitiligo (20%), fixed drug eruptions (16%), scabies (14%), pearly penile papule (10%), and dermatophytoses (10%). Other dermatoses included psoriasis, plasma cell balanitis or Zoon's balanitis, lichen simplex chronicus, lymphangioma circumscriptum, squamous cell carcinoma, scrotal dermatitis, lichen planus, steatocystoma multiplex and candidiasis.

Conclusions: This study helps in understanding the etiological causes of nonvenereal genital dermatoses and their pattern in this region.

Keywords: Nonvenereal genital dermatoses, Male, Pattern, Etiological causes

INTRODUCTION

Dermatoses involving genital areas are not always sexually transmitted. They can be divided into two groups: venereal and nonvenereal dermatoses. The diseases, which are not sexually transmitted, are referred as nonvenereal dermatoses.^{1,2} Nonvenereal genital dermatoses, include a wide array of diseases with varied etiology.¹ They can either effect genitalia alone or may affect other body part also.¹

The nonvenereal dermatoses can be: Inflammatory diseases (psoriasis, scrotal dermatitis, lichen planus), infections and infestations (scabies, dermatophytosis), congenital disorders (median raphe cyst), benign abnormalities (pearly penile papules, sebaceous cyst, steatocystoma multiplex), pigmentary disorders (vitiligo) and malignant lesions (erythroplasia of Queyrat, Squamous cell carcinoma).¹⁻³ As these groups includes various types of disorders, the identification of diseases is quite challenging.

These nonvenereal disorders are the cause of considerable concern to patients causing mental distress and guilt feeling in them. Nonvenereal dermatoses are quiet often a diagnostic dilemma to the treating physician, who has to effectively manage the condition and also allay the associated anxiety.⁴ Determining any causal or aggravating factor can save the patient from the agony of persistent discomfort and restrict social life. A comprehensive understanding of various presentation, there cause and appropriate management options is, therefore, essential. The study is to find the pattern of nonvenereal dermatoses presenting with genital lesions and to correlate its various etiological parameters.

METHODS

A total of 50 consecutive male patients over age of 18 years, with genital lesions of nonvenereal origin, attending the OPD of Dermatology Venereology & Leprology, Basaweshwar Teaching and General Hospital, Attached to Mahadevappa Rampure Medical College, Kalaburagi were included. Cases having any venereal diseases and patients below 18 years of age were excluded. Informed consent was obtained. The study commenced from August 2016 to January 2017.

The external genitalia to be examined, and findings to be noted. A detailed physical examination was done to see any associated lesions elsewhere in the body. A detailed history including demographic data, chief complaints related to skin, onset and duration of disease and associated medical or skin disorders was elicited and recorded. History of sexual exposure was also recorded. All appropriate investigations such as Gram-stain, KOH mount, venereal disease research laboratory test, HIV test and histopathological examination are to be done.

Any appropriate treatment given to the patient for the dermatose does not form part of the study.

RESULTS

A total of 50 male patients with nonvenereal dermatoses of external genitalia were included in the study. The age of the patients ranged from 18 years to 65 years, with the mean age of 30.2 years. Most patients belong to the age group of 21-30 years (44%), followed by the age group of 31-40 years (24%). Thirty two patients (64%) were from the urban area while eighteen patients (36%) belong to rural background. Twenty four (48%) patients were married and the remaining twenty six (52%) patients were unmarried. Scrotum was involved in 68% and penis in 26% while both scrotum and penis were affected in 6% cases (Table 2).

A total of fourteen types of nonvenereal dermatoses were noted in this study (Table 1). The most common disorder was vitiligo (Figure 1) present in 10 cases, followed by fixed drug eruption (FDE) which accounted for 8 cases (Figure 2). The other disorder encountered included

scabies (Figure 3) in 7 cases ;pearly penile papule and dermatophytosis (Figure 4) 5 cases each ; other dermatoses are Candidiasis, Staetocystoma Multiplex (Figure 5), Lymphengectasia Scrotum, Lichen Simplex Chronicus (Figure 6), Psoriasis, Scrotal dermatitis, Squamous cell carcinoma, lichen planus and Zoon’s balanitis (Table 1).

Table 1: Genital dermatoses etiologies.

| Genital dermatoses | Number (out of 50) |
|--------------------------|--------------------|
| Vitiligo | 10 |
| Fixed drug eruptions | 8 |
| Scabies | 7 |
| Pearly penile papule | 5 |
| Lichen planus | 1 |
| Lymphengectasia scrotum | 2 |
| Psoriasis | 1 |
| Staetocystoma multiplex | 2 |
| Squamous cell carcinoma | 1 |
| Scrotal dermatitis | 2 |
| Dermatophytosis | 5 |
| Lichen simplex chronicus | 2 |
| Zoon’s balanitis | 1 |
| Candidiasis | 3 |



Figure 1: Vitiligo: depigmented macules over glans.



Figure 2: FDE: Erosion over glans.

The common presenting features were itchy genitalia, depigmentation. Other complaints were pain, burning sensation, redness, exfoliation of the skin, raised lesions

over the skin, oozing, ulceration, erosions and thickening of the skin.



Figure 3: Scabies: multiple papules.



Figure 4: Dermatophytic infection: polycyclic raised plaque over scrotum.



Figure 5: Staetocystoma Multiplex : Multiple cysts.



Figure 6: Lichen simplex chronicus: hyperkeratotic scrotum.

Table 2: Demographic characteristics

| Status | N=50 |
|-------------------------------------|------|
| Age groups | |
| <20 | 2 |
| 21 - 30 | 22 |
| 31 - 40 | 12 |
| 41 - 50 | 7 |
| 51 - 60 | 5 |
| >60 | 2 |
| Marital Status | |
| Married | 24 |
| Unmarried | 26 |
| Status by place of residence | |
| Rural | 18 |
| Urban | 32 |
| Status of involvement | |
| Scrotum | 34 |
| Penis | 13 |
| Both | 3 |

DISCUSSION

These disorders involving genitals are the cause of considerable concern to patients. It is, therefore, utmost important to distinguish between venereal and nonvenereal dermatoses to save them from mental distress and guilt feeling. Patients with genital dermatoses usually present to genitor-urinary experts or physicians, who are not oriented to adequate dermatological diagnosis and treatment.⁵ Disorders of genitalia have proved confusing to various and the problem is confounded by the fact that the normal characteristics of common diseases at flexural sites are lost or modified, making the diagnosis difficult for even an experienced dermatologist.

The nonvenereal dermatoses of male external genitalia include wide spectrum of disease with varied etiology.⁴ There are very few comprehensive study on the pattern of nonvenereal dermatoses in males from our country.^{3,6} Also, our study is first of its kind from this part of the country. Acharya et al had done a study of 200 patients with genital lesions of nonvenereal origin.³ Karthikeyan et al and Saraswat et al had done similar studies.^{6,7}

Most of the patients belong to the age group of 21-30 years (44%) in the present study which is similar to Karthikeyan et al and Saraswat et al (Table 2).^{6,7}

A total of 14 different nonvenereal dermatoses were observed in this study (Table 1) as compared to 25 for Karthikeyan et al and 16 for Saraswat et al.^{6,7}

The most common disorder was genital vitiligo (Figure 1), which accounted for 10 (20%) cases, is seen in all age groups from young adult to older age group. This is in

contrast with the study conducted by Karthikeyan et al, where the entire patients with vitiligo were in older age group.⁶ Fixed drug eruption (FDE) which accounted for 8 (16%) cases (Figure 2) is the second most common disorder. This is in contrast with Karthikeyan et al, where only 3 cases had FDE and all of them because of cotrimoxazole.⁶ In our study, various drugs were implicated such as, nonsteroidal antiinflammatory drugs, sulphonamides, ornidazole, fluconazole.

Acharya et al in their study recorded scabies as most common nonvenereal dermatoses accounting for 30 cases (15%), while it was third most common disorder 14% cases in our study (Figure 3).³ Other infectious dermatoses dermatophytic infection (Figure 4) was present in 10% cases in our study as scaly pruritic plaques over scrotum never over the penis same in number to pearly penile papule, which were present in 10% cases in our study is a common disorder found in up to 50% of men.⁸ They are frequently mistaken as warts and misdiagnosed as Tyson's gland or ectopic sebaceous gland of Fordyce.⁴

We came across 3(6%) cases of balanoposthitis etiological agent being *Candida albicans*. There were 2 cases (4%) each of lymphangectasia, LSC (Figure 6) and scrotal dermatitis. Steatocystoma of scrotum was second most common finding (14%) by Karthikeyan et al.⁶ Here we had only 4% cases of steatocystoma multiplex (Figure 5).

Itching particularly around scrotum is a common presenting problem. Contributory factors include, tight clothing, friction, maceration, atopy, over-washing, use of various toiletries, topical medicaments and indigenous preparations.^{9,10} Scrotal dermatitis accounted for 4% cases in our study inclusive of contact dermatitis.

Psoriasis was encountered in 2% cases in our study. Karthikeyan et al reported a solitary case of psoriasis of glans penis while Acharya et al reported 5 cases of psoriasis over genitalia.^{3,6} One case each of Zoon's balanitis, Lichen planus and squamous cell carcinoma were reported in our study.

CONCLUSION

All lesions involving genitalia are not sexually transmitted. So it's important to distinguish between venereal and nonvenereal causes of lesions. In addition to the mental agony to the patient, these present a diagnostic dilemma to the treating physician. This study goes a long way to understand the etiology and clinical characters of the various nonvenereal dermatoses. It also helps to

understand the epidemiology of these disorders. The most common etiology in our study was vitiligo.

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