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Non-Veneral Genital Dermatoses: A Study from Western Nepal

Kumar A[1], Pun J[1], Neupane D[1], Subedi S[2], Asim M[3], Sathian B[4]

[1]Department of Dermatology, Manipal College of Medical Sciences, Pokhara, Nepal, [2]Department of Dermatology, Gandaki Medical College, Pokhara Nepal, [3]Trauma Surgery, Surgery Department, Hamad General Hospital, Hamad Medical Corporation, Doha, Qatar, [4]Scientist, Geriatric Medicine Department, Rumailah Hospital, Hamad Medical Corporation, Doha, Qatar.

Abstract

Introduction: The etiology of dermatoses involving genital areas could be venereal or on-venereal. These disorders are responsible for mental distress and guilt which can be minimized by appropriate diagnosis and information to the patients.

Objectives: To assess the clinical pattern and prevalence of various non venereal genital dermatoses in a referral center.

Materials and Methods: This was a hospital-based descriptive study involving patients with non-venereal diseases visiting outpatient clinics of Department of Dermatology. After informed consent, all the parameters were recorded in a proforma and analyzed.

Results: Total of 70 patients with non-venereal genital dermatoses were included. Mean age of the patients was 33 years. Majority were male, married and had history of irregular use of contraceptives. Duration of symptoms ranged from one to 36 months with mean of four months.

Total 19 types of non-venereal skin diseases were noted with major complaint of itching in genitalia in 22 (31.4%). Primary site of involvement/complaint was vulva in 19 (27.1%), scrotum in 17 (24.3%), groin in 18 (25.7%) and penile area in 14 (20.0%). The most common final dermatological diagnosis in majority was fungal infections and neurodermatitis in 12.9% each. Extramarital relationship was reported by 37 out of 70 patients (52.9%), while 31 patients correlated their symptoms with sexual exposure.

Conclusions: Itching was the most common presenting complaint with infective etiology. The current study highlighted the relevance of addressing non-venereal genital dermatoses in order to avoid the general misconception that all genital lesions are sexually transmitted..

Key words: Sexually Transmitted Diseases; Neurodermatitis; Dermatitis, Allergic Contact

Introduction

Dermatoses involving genital areas may or may not be sexually transmitted. Genital dermatoses can be divided into two groups, venereal and non-venereal dermatoses. The disease which is not transmitted through sexual contact is known as non-venereal dermatoses. Non-venereal genital dermatoses, manifested with a wide array of disease presentation with different etiologies among males and females. They can either affect genitalia alone or may affect other body parts also.[1]

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Address of Correspondence
Dr. Ajay Kumar
Associate Professor
Derpatment of Dermatology
Manipal Teaching Hospital,
Phulbari, Pokhara, Nepal.
E-mail: drajayk2002@yahoo.com

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The non-venereal dermatoses can be classified into several groups depending upon specific etiopathogenesis which includes infections and infestations (scabies, dermatophytosis), inflammatory cutaneous diseases (psoriasis, lichen planus, seborrheic dermatitis), benign abnormalities (sebaceous cyst, angiokeratoma of Fordyce), congenital disorders (median raphe cyst), exogenous (contact dermatitis, corticosteroid abuse, fixed drug eruption),autoimmune disorders (vitiligo), multisystem diseases (Reiter syndrome, Crohn's disease, Behcet syndrome), and premalignant and malignant cutaneous lesions (extramammary pagets diseases, squamous cell carcinoma, eryrthroplasia of Queyrat).[2,3] As these disease groups constituted various types of disorders which make the diseases identification and accurate diagnosis often challenging.

The non-venereal disorders can cause potential health concern to the patients that manifest as mental distress and feeling of guilt as these diseases are often incorrectly perceived as being acquired by sexual contact. Non-venereal dermatoses often pose a diagnostic dilemma for the treating physician in terms of effective management of the disease as well as dealing with the associated anxiety of the patient. Identification of the causal or aggravating factor and appropriate treatment of the disease could relieve the persistent discomfort of the patient and restricted socialization, which also substantially improve the dermatology-specific quality of life. A better understanding of clinical presentation of disease spectrum, etiological factors and appropriate management options is crucial for these complicated groups of disorders.[4]

Materials and Methods

This was a hospital-based descriptive study involving patients with non-venereal diseases visiting outpatient clinics of Department of Dermatology, Manipal Teaching Hospital. Prior approval was taken from institutional ethical review committee. After taking informed consent, all the parameters were recorded in a preformed proforma. The present study excluded patients presented with venereal disease.

Detailed information regarding demographic characterstics, chief complaints related to skin and genitalia, onset, skin lesions, presence of itching, menstrual and pregnancy status and associated medical or skin related disorders were obtained and recorded for analysis. Moreover, enquiry was made with regard to history of correlation of symptoms and sexual exposure and extramarital relationships if any.

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A detailed physical examination was performed to observe any associated lesions elsewhere. In order to establish the diagnosis, laboratory investigations such as Gram's stain, Giemsa stain and Potassium hydroxide mount mount was performed, if indicated. Biopsy and histopathological examination of the specimen was performed. To exclude cases of sexually transmitted disease, VDRL and ELISA test for HIV was done in all the study patients. The data entry and statistical analysis was performed using Microsoft Excel 2010 in statistical package for social sciences (SPSS) version 14 for windows.

Results

A total of 70 patients with non-venereal genital dermatoses were included in our study. The mean age of the patients was 33 years and higher proportion of them were married 46(65.7%) and 24(34.3%) were unmarried. Males (57.1%) outnumbered females (42.9%) with a male: female ratio of 1.33:1. Majority of the male patients were from age group 21 years to 30 years of age (37.5%) and female were from age group 31 years to 40 years of age (23.3 %). Gender and age distribution is shown in Figure 1.

Majority of the patients were students (32.9%) followed by housewives (25.7%). Irregular use of contraceptives was found in 82.9%, while five percent had never used contraceptives. Duration of symptoms ranged from one to 36 months with mean of four months.

A total of 19 different types of non-venereal skin diseases were identified in our study and the age-wise distribution of different types is shown in Table 1. Majority of patients complained of itching in genitalia 22 (31.4% with 95%CI [20.9-43.6]), followed by some types of growth 18 (25.7% with 95%CI [16-37.6]), while nine (12.9% with 95%CI [6-23]) had burning sensations and seven (10.0% with 95%CI[4.1-9.5]) had discoloration (Table 2). The primary site of involvement/complaint was vulva in 19 (27.1% with 95%CI [17.2-39.1]), scrotum in 17 (24.3% with 95%CI

[14.8-36]), groin in 18 (25.7% with 95%CI [16-37.6]) and penile area in 14 (20.0% with 95%CI [11.4-31.3]). Final dermatological diagnosis in majority was fungal infection in 9/70 (12.9% with 95%CI [6-23]) and neurodermatitis in nine (12.9%) each followed by scabies and pearly penile papules in eight each (11.4% with 95%CI [5.1-21.3]) while allergic contact dermatitis was diagnosed in seven (10.0% with 95%CI [4.1-9.5]).

In males the most common non venereal dermatosis reported was pearly penile papules (20%) followed by scabies (17.5%), while in females it was tinea infection (26.7%) followed by allergic contact dermatitis (16.7%) as shown in Table **3.**

Extramarital relationship was reported in 37 out of 70 patients (52.9% with 95%CI [40.6-64.9]), while 31 patients had perception of genital dermatosis with sexual exposure. Figure 2 shows the relationship between patient's perception of genital dermatosis and extramarital sexual exposure. Patients with perception of genital dermatoses were less likely to have extramarital relationship (p=0.250).

Table 1: Age-wise distribution of non-venereal dermatoses

	≤20 yrs (n=12)	**21-30 yrs (n=22)**	**31-40 yrs (n=13)**	**41-50 yrs (n=16)**	**>50 yrs (n=7)**
Allergic Contact Dermatitis	1 (8.3%)	2 (9.1%)	2 (15.4%)	1 (6.3%)	1 (14.3%)
Neurodermatitis	0 (0.0%)	3 (13.6%)	2 (15.4%)	3 (18.8%)	1 (14.3%)
Scabies	5 (41.7%)	3 (13.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Pearly penile papules	1 (8.3%)	4 (18.2%)	1 (7.7%)	2 (12.5%)	0 (0.0%)
Lichen Sclerosus	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (12.5%)	1 (14.3%)
Acrochordon	0 (0.0%)	0 (0.0%)	2 (15.4%)	2 (12.5%)	1 (14.3%)
Vitiligo	1 (8.3%)	0 (0.0%)	1 (7.7%)	1 (6.3%)	0 (0.0%)
Steatocystoma multiplex	0 (0.0%)	2 (9.1%)	0 (0.0%)	1 (6.3%)	0 (0.0%)
Tinea	2 (16.7%)	4 (18.2%)	1 (7.7%)	0 (0.0%)	2 (28.6%)
Inflammatory Skin Conditions	0 (0.0%)	0 (0.0%)	1 (7.7%)	0 (0.0%)	0 (0.0%)
Irritant Contact Dermatitis	1 (8.3%)	0 (0.0%)	1 (7.7%)	0 (0.0%)	0 (0.0%)
Sebaceous cyst	0 (0.0%)	1 (4.5%)	0 (0.0%)	2 (12.5%)	0 (0.0%)
Scrotal eczema	0 (0.0%)	1 (4.5%)	0 (0.0%)	1 (6.3%)	0 (0.0%)
Granulomatous Vulvitis	0 (0.0%)	0 (0.0%)	1 (7.7%)	0 (0.0%)	0 (0.0%)
Bartholin cyst	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (6.3%)	0 (0.0%)
Lymphedema vulva	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (14.3%)
Folliculitis	1 (8.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Fordyce spot	0 (0.0%)	0 (0.0%)	1 (7.7%)	0 (0.0%)	0 (0.0%)
Non-specific	0 (0.0%)	2 (9.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Table 2: Chief complaints related to skin

Itching	22 (31.4%)
Growth	18 (25.7%)
Burning	9 (12.9%)
Discoloration	7 (10.0%)
Swelling	6 (8.6%)
Mass	3 (4.3%)
Rash	4 (5.7%)
Discharge	1 (1.4%)

Table 3: Gender-wise distribution of non-venereal dermatoses

	Males (n=40)	Females (n=30)
Allergic Contact Dermatitis	2 (5.0%)	5 (16.7%)
Neurodermatitis	5 (12.5%)	4 (13.3%)
Scabies	7 (17.5%)	1 (3.3%)
Pearly penile papules	8 (20.0%)	0 (0.0%)
Lichen Sclerosus	2 (5.0%)	1 (3.3%)
Acrochordon	5 (12.5%)	0 (0.0%)
Vitiligo	1 (2.5%)	2 (6.7%)
Steatocystoma multiplex	2 (5.0%)	1 (3.3%)
Tinea	1 (2.5%)	8 (26.7%)
Inflammatory Skin Conditions	0 (0.0%)	1 (3.3%)
Irritant Contact Dermatitis	1 (2.5%)	1 (3.3%)
Sebaceous cyst	2 (5.0%)	1 (3.3%)
Scrotal eczema	2 (5.0%)	0 (0.0%)
Granulomatous Vulvitis	0 (0.0%)	1 (3.3%)
Bartholin cyst	0 (0.0%)	1 (3.3%)
Lymphedema vulva	0 (0.0%)	1 (3.3%)
Folliculitis	0 (0.0%)	1 (3.3%)
Fordyce spot	0 (0.0%)	1 (3.3%)
Non-specific	2 (5.0%)	0 (0.0%)

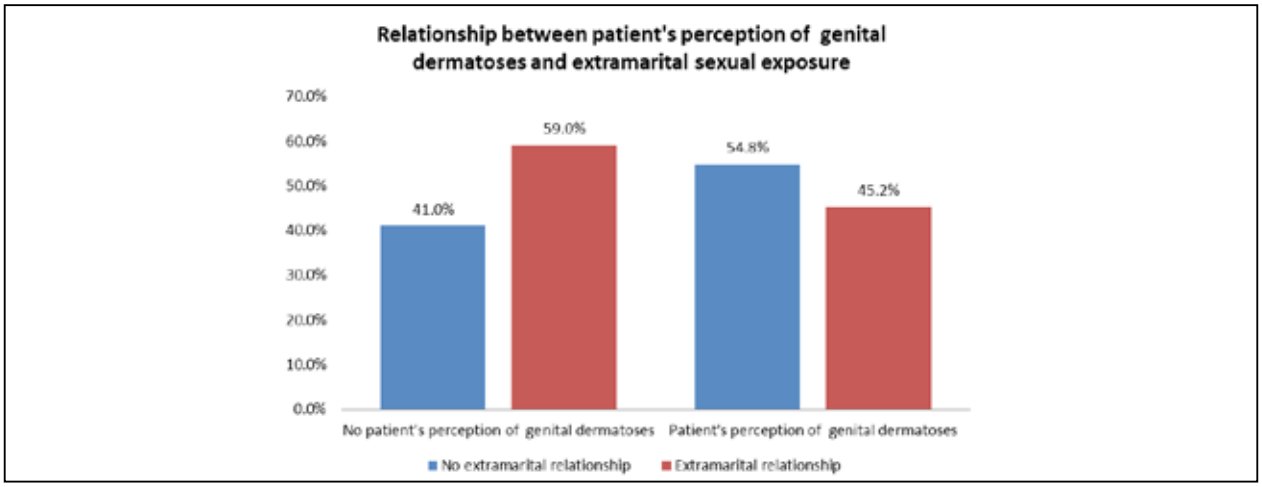

Figure 1: Gender and age distribution

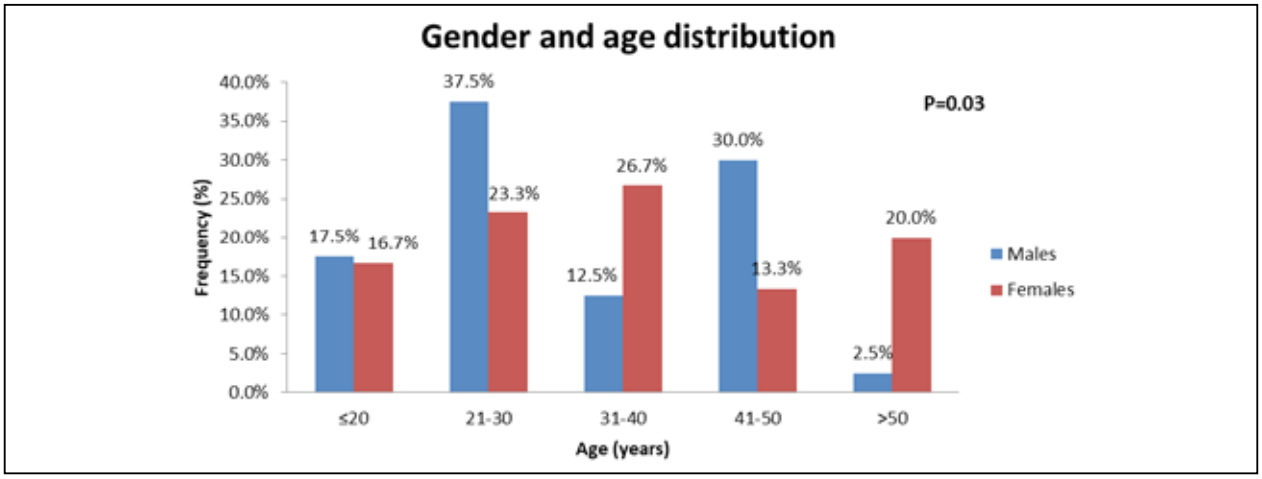

Figure 2: Relationship beteewn patient's perception of genital dermatoses and extramarital sexual exposure

Discussion

The non-venereal dermatoses of external genitalia include a spectrum of dermatoses with varied presentations and etiology. These dermatoses may be associated with considerable psychological stress and feeling of guilt as they may be wrongly correlated with sexual behavior. It can also be confused as sexually transmitted infections by physicians leading to diagnostic dilemma. So it is necessary to properly diagnose and address this complicated group of dermatoses to relieve the patient from the stigma and phobia of sexually-transmitted diseases and even cancer.

Majority of patients in our study were from sexually active age group 33.0±13.4 years, which was similar to other studies.[4-7]

Majority of the patients were students (32.9%), followed by house makers (25.7%), labourers and business person constituted nine (12.9%) each. Whereas in study by Rao et al[7] majority were workers followed by students. The most common presenting complaints were itching in and around genitalia, some types of growth, burning sensation and discoloration of genital area. Vulva in female and scrotum in male were the most commonly involved area.

In total 19 types of non-venereal dermatoses were noted in our study, whereas 16 different types were reported by saraswat et al[6] 15 by Rao et al[7] and Karthikeyan et al[9] had 25 and Kumar et al[10] had 28 different non-venereal dermatoses in their study.

The study by Acharya et al[8] reported infections as the commonest disorder contributing 40% cases. Similarly, in our study the most common non-venereal dermatosis noted was fungal infections and neurodermatits followed by pearly penile papules and allergic contact dermatitis of genitalia. Genital vitiligo was the commonest finding in other similar studies; 18 % in a study by Saraswat et al[6] and 16% by khoo et al.[11] Lichen sclerosus was the commonest vulval disorder reported by Joshi et al[12] with itching as common presenting complaint. Most of the patients with pearly penile papules (seven out of eight) came to visit with apprehension of some venereal disease mainly warts. They were counseled and provided printed reading materials regarding the nature and course of the disease. Majority of patients confessed about extramarital relationship. About 60% male and 23.3% female correlated their symptoms with sexual behavior. Lack of knowledge, misconceptions in beliefs and attitude, poor personal and sexual hygiene, poor sanitary condition in living and working environment do contribute to patients' beliefs.[7]

Cases which presented to a single consultant dermatologist were included, so it doesn't reflect the prevalence even in a single institution.

Conclusions

Itching was the most common presenting complaint with infective etiology. The current study highlighted the relevance of addressing non-venereal genital dermatoses in order to avoid the general misconception that all genital lesions are sexually transmitted. Knowledge of pattern and prevalence of various non venereal genital dermatoses are a great help in arriving at diagnosis and creating awareness among clients to improve their personal hygiene and social habits. Some patients, particularly teenagers who have fear and misinformation need more attention.

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