A clinico-epidemiological profile study of venereal genital dermatoses in a tertiary hospital in southern Nigeria: A 5-year review

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Abstract

Venereal genital dermatoses are cutaneous morbidities contracted and transmitted by sexual contact. They are caused by microorganisms that survive on the skin or mucous membranes, or that are transmitted via semen, vaginal secretions, or blood during sexual intercourse. Data on pattern of presentation and diagnoses of venereal genial dermatoses are limited in Nigeria. The aim of this study was to determine the pattern of presentation of venereal genital dermatoses over a 5-year period in the University of Benin Teaching Hospital (UBTH), Benin City, Edo State, Nigeria. Information extracted from patients' medical records included socio-demographic data, duration of symptom, distribution of lesions, symptomatology and diagnoses of the venereal genital dermatoses. There were 121 patients with venereal genital dermatoses amongst 1600 new cases seen over the 5-year period constituting a prevalence of 7.6%. The male:female ratio of the study population was 1.5:1 and their mean age was 26.2 ± 10.5 years. The predominant symptoms at presentation were abnormal genital growth in 108 (89.3%), genital ulcer in 12 (9.9%), and genital pain in 11 (9.1%). The common venereal genital dermatoses were anogenital warts in 108 (89.3%) and genital herpes in 11 (9.1%). Venereal genital dermatoses are a relatively common dermatological presentation in UBTH and anogenital wart was the most common type. Venereal genital dermatoses were more common in the young age group and males. The most predominant site of affectation was the vulva in females and penis in males.

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Informed consent: Written informed consent was obtained from a legally authorized representative(s) for anonymized patient information to be published in this article.

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Introduction

Dermatoses involving genital areas are not always transmitted sexually.[1] They can be divided into two groups: venereal and non-venereal dermatoses. The diseases that are not sexually transmitted are referred as non-venereal dermatoses. Non-venereal genital dermatoses include a wide array of diseases with varied etiologies.[2] Venereal genital dermatoses are cutaneous morbidities contracted and transmitted by sexual contact. They are caused by microorganisms that survive on the skin or mucous membranes, or that are transmitted via semen, vaginal secretions, or blood during sexual intercourse. The common venereal dermatoses include anogenital warts, genital herpes, syphilis, chancroid, donovanosis and lymphogranuloma venerum.

Data on pattern of presentation and diagnoses of venereal dermatoses are still limited especially in Nigeria probably because reporting of some sexually transmitted diseases like anogenital warts is not mandatory.[3,4] The aim of this study was to describe the clinic-epidemiological pattern of venereal dermatoses observed over a 5-years period in the University of Benin Teaching Hospital, Benin City, Edo State, Nigeria.

Materials and Methods

This was a retrospective descriptive study that was carried out in the University of Benin Teaching Hospital, Benin City, Edo State. Medical records of all patients with venereal dermatoses who attended the out-patient clinic between December 2014 to December 2019 were analyzed. Information extracted from the case notes were socio-demographic information, clinical presentation and diagnosis of venereal dermatoses. The diagnosis of venereal dermatoses was essentially clinical, confirmed where expedient with a skin biopsy, swabs from ulcers for microscopy culture and sensitivity, dermoscopy, treponemal and non-treponemal tests where applicable for identifying syphilitic lesions.

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Ethical considerations

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Data analysis

Data entry and analysis was done using IBM Statistical Package for Social Science version 21. Categorical variables were expressed as frequencies and proportions. Continuous variables were expressed as mean±standard deviation. Data were displayed in tables and charts.

Results

The study was comprised of 121 clients with venereal genital dermatoses accounting for 7.8% of 1600 new patients attending dermatology outpatient clinic during the study period (Table 1). There were 73 men and 48 women (M:F 1.5:1) aged between 1 and 80 years. The mean age of the study participants was 26.2±10.5 years. The clients were distributed across all age groups; 113 (93.4%) were ≤40 years, 6 (5%) were 41-64 years while 2 (1.7%) were ≥ 65years.The duration of symptoms varied between 1 month and 8 years and the mean duration of symptoms was 11.1±13.2 months.

The sites of the lesions were penis 59 (48.8%), vulva 40 (33.1%), anus 13 (10.7%), scrotum 5 (4.1%), vagina 3 (2.5%) and gluteal region 1 (0.8%) The clinical presentation were abnormal genital growth 108 (89.3%), genital ulcer 12 (9.9%), genital pain 11 (9.1%), genital itching 4 (3.3%), and genital rash 1 (0.8%).

The venereal genital dermatoses observed in this study were anogenital warts 108 (89.3%), genital herpes 11 (9.1%), chancroid 1 (0.8%) and molluscum contagiosum 1 (0.8%, Figure 1).

The venereal genital dermatoses occurred more in males 73 (60.3%) *vs* 48 (39.7%) for females. This observation was not statistically significant (P>0.05, Figure 2). The young population had a higher prevalence of venereal genital dermatoses 113 (93.4%) compared to the middle aged and elderly. This observation was statistically significant p<0.001 Figure 3.

Discussion

More than 1 million Sexually Transmitted Infections (STIs) are acquired every day worldwide.[2]

In this study, venereal genital dermatoses accounted for 7.8% of cases seen in the dermatology out -patient clinic. This is comparable to findings of Nnoruka *et al.* where they found sexually transmitted dermatoses to account for 5.4% of cases seen in their outpatient clinic.[5] Anogenital warts was the most frequently diagnosed venereal genital dermatoses in our study and accounted for 89.3% of all venereal genital dermatoses. This is similar to previous report that showed that anogenital Human Papillomavirus (HPV) is the most frequent sexually transmitted viral infection in the world.[6] It can result in cancers or benign skin and mucosal tumors. Anogenital wart commonly presents as visible lesions which may occur as single or multiple papules on the vulva, perineum, perianal area, vagina, cervix, penis, anus, scrotum and urethra (Figure 4).[5] Majority of the lesions are self-limiting and often regress spontaneously within 6 months to 6 years of onset of symptoms.[7] Approximately 90% of all genital warts are related to HPV types 6 and 11 which are least likely to have neoplastic potential.[8]

There was a male preponderance of anogenital warts in our study, although this was not statistically significant. Our finding was different from studies reported by Andahi *et al.*[9] in North-eastern Nigeria, and Okesola *et al.*[10] in South-western Nigeria where they reported a female preponderance in their study. This was explained by the increased incidence of warts in patients with venereal infections caused by *Trichomonas vaginalis* and *Gardnerella spp* which have been documented to be more common in females.[9] The increased awareness about HPV vaccines for women may have begun to reflect in the incidence of HPV infections, thus reducing the prevalence rates amongst women. This may explain the male preponderance in our study. The advent of HPV vaccines and subsequent recommendation for use present an opportunity to lessen the burden of cervical disease among a population disproportionately affected.

In 2014, the Advisory Committee on Immunization Practices (ACIP) recommended routine HPV vaccination for the immunosuppressed women living with HIV (WLH) not more than age 26.[11] Preferably, the HPV vaccine should be given prior to sexual initiation for the general population.[12]

The mean age of our clients with venereal genital dermatoses which was majorly anogenital wart was 26.2±10.5 years. This is comparable with the finding of Saad *et al.*[13] who reported that anogenital warts occurred more commonly in the 3rd decade of life in a study conducted in Northern Nigeria. This is also in keeping with report from some previous studies.[14,15]

Genital herpes was the second most common venereal genital dermatoses encountered in our study. It accounted for 9.1% of all venereal genital dermatoses in our study. Genital herpes is a common sexually transmitted viral disease. Higher prevalence rate of 40% was reported by Okwara *et al.*[16] in a study done in this region over 10 years ago. The explanation for this disparity may be that in

Table 1. Clinico-epidemiologic data of study population.

Parameter	N =121 N (%)
Age	
Mean±SD	26.2±10.5 years
Duration of symptoms	
Mean±SD	11.1±13.2 months
Age group	
Young (0-39years)	113(93.4)
Middle aged (40-64years)	6(5)
Elderly (>65)	2(1.7)
Sex	
Male	73(60.3)
Female	48(39.7)
Symptomatology	
Rash	1(0.8)
Ulcer	12(9.9)
Abnormal growth	108(89.3)
Pruritus	4(3.3)
Pain	11(9.1)
Predominant anatomical site involved	
Penis	59(48.8)
Vulva	40(33.1)
Anus	13(10.7)
Scrotum	5(4.1)
Vagina	3(2.5)
Gluteal region	1(0.8)

our study diagnosis was mainly clinical and asymptomatic patients were not included in this study unlike their study where serology test was used for diagnosis.

Chancroid was seen in only one patient in this 5-years review period. Chancroid is an acute infection and auto-innoculable disease.[17] The disease is more prevalent in Northern Nigeria partly due to permissive sexual practices especially for men.[18] This hypothesis is in support of our finding of low prevalence observed in our center which is in the Southern part of Nigeria.

Molluscum contagiosum was seen in the genital area in 0.8% of patients observed with venereal dermatosis during the 5-years review. Molluscum contagiosum is a self-limited infectious dermatosis, which is frequent in the pediatric population, but rare in adults except for the sexually active adults, and immune-compromised individuals. It is transmitted mainly by direct contact with infected skin and clinically characterized by umbilicated pink or skin-colored papules.[19,20] It is a frequent reason for consultation in pediatric dermatology and due to its self-limited nature, many of the lesions may resolve on their own without treatment within 12-18 months. This study was on venereal genital dermatoses explaining the paucity of the pediatric population.

The most predominant anatomical location of venereal genital lesions in females in our study was the vulva (83.3%). This finding was in keeping with report by Saad *et al.*[13] in Northern Nigeria where 75% of the females in that study had their lesions on the vulva.[13] Also, the penis (80.8%) was the most common site of venereal genital lesions in males. This observation in our study was at variance to reports by Saad *et al*.[13] where perianal area was observed to be the most predominant site for genital lesions among males. Homosexual practices have been associated with increased prevalence of anal warts. This difference may be related to the type of sexual practices such as anal sex among the male population studied, although this was not included as part of information extracted for our study.

The limitation of this study was that the findings may not reflect the characteristics of venereal genital dermatoses in a general population because it was hospital based. Also, because it was a retrospective study, the information that could be retrieved were limited by previous documentation.

In conclusion, venereal genital dermatoses is a relatively common dermatological presentation in the out-patient clinic and anogenital wart was the most common. It was more common in the young age group and males. The most predominant site of affectation were the vulva in females and penis in males.

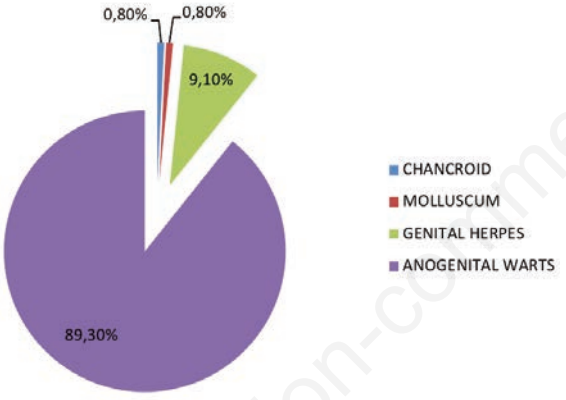

Figure 1. Frequency of venereal genital dermatoses.

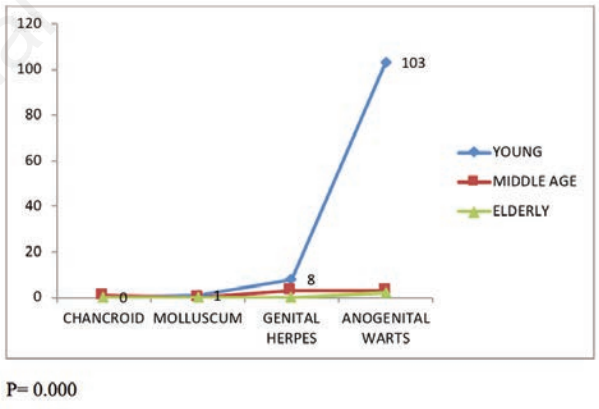

Figure 3. Age distribution of venereal genital dermatoses.

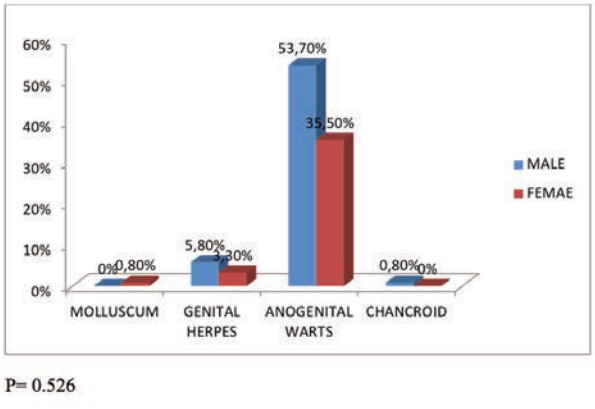

Figure 2. Gender distribution of venereal genital dermatoses.

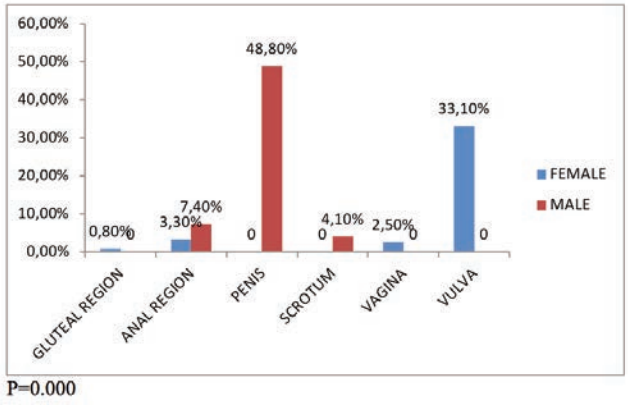

Figure 4. Pattern of distribution of venereal genital dermatoses.

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