ORIGINAL ARTICLE

# Clinico-Epidemiological Profile of Patients Attending Sexually Transmitted Disease Clinic at the Department of Dermatology, GMC Jammu

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**Abstract**

The current Study was done to understand the demographic factors and pattern of diseases in patients of STDs. This is a tertiary care based retrospective study of all the patients attending STD clinic at the department of Dermatology, Government Medical College, Jammu for a period of 2 years from Jan 2014 to Dec 2015. Detailed history, demographical data and clinical features with relevant investigations were recorded and analysed in all the patients. All the patients were screened for HIV and Venereal disease research laboratory (VDRL) test. A total of 275 patients with complaints of genital lesion were included in this study. The male to female ratio was 1.3:1. Most of the patients were in the age group of 15-30 years. 79.3% patients were married. The history of extramarital and premarital sexual exposure was seen in 38.5% of the married and 86% of the unmarried patients respectively. Herpes genitalis was the most common STD (24.7%), followed by molluscum contagiosum (23.3%), genital warts (22.6%), syphilis (20%) and others. Syphilis was the most common bacterial STD observed. 5.1% of the STDs patients were found to be HIV positive.A comprehensive study of the epidemiological data of STDs is very important in order to reduce the incidence or prevalence of STDs in a geographical area. The persistent and recurrent nature of viral infections is responsible for their increasing trends in current STD scenario. STD being higher in married individuals further emphasizes the importance of contact tracing, counselling and prompt management of the partner.

**Key Words**

Sexually Transmitted Disease, Epidemiology, Disease Pattern

## Introduction

Sexually transmitted diseases (STD) are a group of communicable diseases that are transmitted predominantly by sexual contact and manifest as disease of genitalia and other parts of body involved in sexual interaction. Sexually transmitted infections (STI) includes STDs and those diseases which may remain asymptomatic or do not cause genital lesions.(1) However, for all practical purposes, both STD and STI are used synonymously Sexually transmitted diseases constitute a major public health problem throughout the world and their importance has been magnified with the emergence of Human immunodeficiency virus (HIV) infection as they play important role in acquisition and transmission of HIV. High risk factor for STDs which is of utmost importance, is unprotected sex with an infected partner, either active or asymptomatic.(2) STDs are commonly more active than other prevailing infections in the community amongst the sexually active population and the epidemiological profile is very distinct and more dynamic than other diseases.(3) In India, there is marked heterogeneity in the epidemiology of STD in different parts of the country. A proper knowledge of the pattern of STDs in different geographical regions is necessary for evolving proper and better control measures. The present study was conducted to study the pattern of disease and demographic factors in the patients attending

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**Material and Methods**

A retrospective analysis of data collected from clinical records of patients attending STD clinic at department of Dermatology from January 2014 to December 2015 was carried out. Diagnosis was based on detailed history, clinical examination and relevant investigations. The VDRL (Venereal Disease Research Laboratory) and HIV tests were done in all cases. Other investigations like Gram stain, Tzanck smear and potassium hydroxide wet mount were done in relevant cases. Data were collected on STD case card which records the information regarding age, sex, occupation, marital status, residence, type of sexual contact, detailed history, clinical examination investigations, final diagnosis and treatment of the cases. Counselling regarding the risk involved in unprotected sexual contact, need for partner treatment and use of protective diseases was being done in all patients.

**Results**

A total of 275 cases were diagnosed to have different STDs from Jan 2014 to Dec 2015. Males outnumbered females with male: female ratio of 1.3 :1. Most of the patients were from rural area. The age of patients ranged from 17 to 60 years and majority of them were in the age group of 16-30 years (*Table-1*). 69.4% males and 92.4% females were married at the time of presentation and all of them except eleven (5%) were cohabiting with their spouse. Students, armed personals and unskilled workers constituted major proportion of the male patients. Most of the females were housewives. History of pre-marital exposure was present in 93.7% unmarried males and 4.4% unmarried females. Of the total 218 married patients only 77 males and 7 females gave the history of extramarital contact while others blamed their spouse for the source of infection. Three male patients were found to be homosexual.

Genital Herpes was the most common STD observed in males and Molluscum contagiosum in females (*Table 2*). Viral infections accounted for 70.6% of the total cases. Syphilis was the most common bacterial STD observed in both sexes. Candidial infection was seen in 5.7% of males and 5.1% of females. Least observed STDs were uretheritis and pediculosis pubis. 20% patients were found to be reactive for VDRL test. HIV infection associated with STDs was found to be in 14 (5.1%) patients and of them, 10(71.4%) were males and 4(28.6%) were females. 71.4% of HIV seropositive patients had concurrent viral STDs. Past history of STD was found in 38(13.8%) patients and most of them were of recurrent herpes genitalis (76.3%) followed by latent syphilis (21.1%) and balanoposthitis (2.6%).

**Discussion**

India has a population of more than 1.25 billion, with half of them in the sexually active age group. Among the 275 studied cases, majority were males (57.1%) with male to female ratio of 1.3:1. Male predominance in our study is in agreement with observation of Arakkal *et al*.(4)

***Table 1. Showing Demographic profile of 275 study cases***

| Demographic Feature | No. of patients | percentage |
|---|---|---|
| Gender | | |
| Male | 157 | 57.1 |
| Female | 118 | 42.9 |
| Rural/Urban Distribution | | |
| Rural | 179 | 65.1 |
| Urban | 96 | 34.9 |
| Marital status | | |
| Married | 218 | 79.3 |
| Unmarried | 57 | 20.7 |
| Age | | |
| <15 | 0 | 0 |
| 16-30 | 155 | 56.4 |
| 31-45 | 88 | 32.0 |
| 46-60 | 32 | 11.6 |
| >60 | 0 | 0 |
| Occupational status | | |
| House wife | 92 | 33.4 |
| Govt. Employee | 23 | 8.4 |
| Pvt. Employee | 17 | 6.2 |
| Unskilled worker | 30 | 10.9 |
| Skilled worker | 16 | 5.8 |
| Driver | 7 | 2.6 |
| Student | 30 | 10.9 |
| Armed personal | 28 | 10.2 |
| Business man | 24 | 8.7 |
| Others | 8 | 2.9 |
| History of pre/extra-marital contact | | |
| Unmarried male | 46 | 16.7 |
| Married male | 77 | 28.0 |
| Unmarried female | 3 | 1.1 |
| Married female | 7 | 2.6 |
| Total | 133 | 48.4 |
| Past h/o STD | | |
| Male | 34 | 12.36 |
| Female | 4 | 1.5 |

*Table 2. Showing Clinical Diagnosis of STD in 275 study cases*

| Clinical Diagnosis | Male | | Female | | Total | |
|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % |
| Syphilis | 33 | 21.0 | 22 | 18.6 | 55 | 20 |
| Chancroid | 5 | 3.2 | 0 | 0 | 5 | 1.8 |
| Uretheritis | 2 | 1.3 | 0 | 0 | 2 | 0.7 |
| Vaginal Discharge | 0 | 0 | 2 | 1.7 | 2 | 0.7 |
| Genital Herpes | 40 | 25.5 | 28 | 23.7 | 68 | 24.7 |
| Molluscum contagiosum | 33 | 21.0 | 31 | 26.3 | 64 | 23.3 |
| Genital Warts | 33 | 21.0 | 29 | 24.6 | 62 | 22.6 |
| Candidial Balanoposthitis | 9 | 5.7 | 0 | 0 | 9 | 3.3 |
| Candidial vulvovaginitis | 0 | 0 | 6 | 5.1 | 6 | 2.2 |
| Pediculosis Pubis | 2 | 1.3 | 0 | 0 | 2 | 0.7 |
| Total | 157 | 100 | 118 | 100 | 275 | 100 |

and Jain *et al*.(5) The low attendance of female patients might be due to social and cultural restrictions and also due to fact that female patients prefer to attend the gynaecology department first rather than STD clinic for the treatment of STDs.

In our study, majority of the cases were in age of 16-30 years (56.4%) as sexually activity is at peak in this age group. Similar finding was observed in other studies by Jain *et al*.,(5) Choudhary *et al*.,(6) Thakur *et al*.,(7) Chandragupta *et al*.,(8) and Saikia *et al*.(9)

Most of the patients were housewives (33.4%) and similar finding was also observed by Thakur *et al*.(7) in their study. Unskilled workers (10.9%), students (10.9%) and armed personals (10.2%) were other major groups.

In present study, 79.3% patients were married as compared to 77.2% in Vora *et al*.(10) study, 46.3% in Saikia *et al*.(9) study, 50% in Jain *et al*.(5) study and 47% in Kumarasamy *et al*.(11) study. Heterosexual contact was the commonest type of sexual contact seen in 98.9% our patients similar to 97% reported by Vora *et al*.(10) and 95.9% by Naryanan *et al*.(12) Most of the married females( 93.6%) acquire infection because of conjugal transmission while extramarital contact was the source of infection in 70.6% of married males. This suggests weakening of traditional familial and social control on sexual behaviour of males. 49 out of 57 unmarried patients (86%) admitted history of premarital sexual exposure and 4(8.2%) of them were female. Premarital sexual contact and STDs among unmarried individuals point to potential danger of HIV transmission. Perhaps migration due to profession, decline in trend of joint family and increase in tolerance to antisocial activities might have contributed to pre/extramarital sexual contacts.

In present study, herpes genitalis was the commonest ulcerative STD, while molluscum contagiosum and genital warts were the common nonulcerative STDs observed which is comparable with Ray *et al* (13) study, Devi *et al* (14) study, Jain *et al*.(5) study and Chandragupta *et al*.(8) study. This apparent increasing trend of viral STDS as compared to bacterial STDs can be probably due to self medication with antibacterials and also because of syndromic treatment provided by general practitioners at primary health care level. Moreover, recurrent and unremitting symptoms of viral STDs prompt these patients to report voluntarily to a higher centre in search of treatment.

VDRL reactivity (confirmed by TPHA) was found in 20% of patients of our study as similar to 19.4% observed

by Vora *et al.*(10) HIV seropositivity was 5.1% in our patients which is higher than national average (2.5%) for STDs clinics as per NACO estimates.(15) This study provides the useful information regarding clinico-epidemiological pattern of STDs. Majority of the patients were married and suffered from viral infections. These infections are difficult to treat and have higher chances of recurrences. Moreover major proportion of HIV seropositive patients were suffering from other viral STDs also. Hence health resources should be adjusted to account and take care of these changes in STD clinics.

## Conclusion

The persistent and recurrent nature of viral infection and widespread use of antibacterials are responsible for their increasing trend in current STD scenario, HIV and STD are perfect examples of epidemiologic synergy as they are core transmitter of each other. STD being higher in married individuals further underlies the importance of health education, counselling and ensured followup of the patients and their partners for improvement in standards of health care. Similar studies at different levels are very essential to detect pattern and changing trends of them as they assist in the formulation of national STD and AIDS control programme.

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