

Clinico-Epidemiological Study Of Sexually Transmitted Diseases At Tertiary Care Centre

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Abstract: Background: Sexually Transmitted Diseases (STDs) pose a significant threat to human health, causing substantial psychosocial and economic burdens among young and sexually active adults. Factors such as rapid population growth, rural-urban migration, commercial sex work and inadequate awareness have contributed to the spread of STDs within communities. This study examines the patterns of STDs among patients presenting to our hospital over a 10-year period. Aim: To study the clinico-epidemiological profile of the patients with Sexually Transmitted Diseases. Material and Methods: This is retrospective study. This included consecutive symptomatic STD patients presenting between January-2015 to December-2024. Diagnoses were established through detailed history, clinical examination and relevant investigations. Results: Most common affected age group was 21-30 years. Incidence of STD was high among Males (79.05%). Married persons were more commonly affected as compared to unmarried. Herpes Genitalis was the most common STD followed by Genital warts, Genital Molluscum Contagiosum. The Overall seroprevalence of HIV among STD patients was 29.62%. Herpes Genitalis was the most common coinfection among seropositive individuals. Conclusion: The proportion of viral STDs was higher compared to bacterial STDs. Increase of viral STDs has been attributed to widespread use of broad- spectrum antibiotics, asymptomatic shedding of virus and incurable nature of viral STDs. Since STDs are indicators of high -risk sexual behaviour in the community and a major health burden with risk of development of HIV and other consequences, prompt diagnosis and adequate treatment of STDs is necessary. [Patel H Natl J Integr Res Med, 2026; 17(1): 10-14, Published on Dated: 07/07/2026]

Keywords: Sexually Transmitted Disease, Herpes Genitalis, Viral Stds

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Introduction: Sexually transmitted diseases are a group of infections and syndromes that are primarily transmitted through sexual contact.

Sexually transmitted diseases (STDs) are a significant public health concern in India, with high prevalence and severe health and economic consequences. Accurate diagnosis is hindered by limited laboratory infrastructure, and the link between STDs and HIV transmission underscores the need for effective control strategies.

This study aims to understand the epidemiological pattern, clinical characteristics, and trends of STDs, with a focus on identifying viral and bacterial etiologies, to inform targeted interventions and disease control strategies.

Material and Methods: The present study is retrospective study carried out during a period of 10 years from January 2015 to December 2024.

A comprehensive clinical evaluation was conducted on symptomatic sexually transmitted diseases patients attending the skin out-patient department. The study collected data on clinical history, Demographics, lesion characteristics, spouse history, and treatment history.

A thorough physical examination was performed, including general cutaneous examination, local examination including genitals, perianal region, oral cavity and lymph node palpation.

Relevant laboratory investigations were conducted, including Rapid plasma reagent test, HIV test, Gram's stain, Giemsa stain, KOH smear, Biopsy for Hematoxylin and eosin stain as and when required.

Patients received counselling on disease nature, course and prognosis, sexual behaviour and risk factors, Barrier protection and condom use,

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partner treatment and notification. Patients received education on disease management, prognosis, and prevention strategies. Treatment was provided according to NACO guidelines.

Result: 4000 patients were diagnosed with STDs during 10 years study. In this study, Males were more commonly affected with 79.05% than

females (20.95%), making male female ratio of 3.77:1.

Most common affected age group was 21-30 years (56.75%), followed by 31-40 years with 23.95 %.

58.34% patients were married and 37.3% were unmarried in this study.

Table 1: Epidemiological Profile

Epidemiological Profile	Variable	Percentage Of Patients (%) (N=4000)
Sex	Male	79.05
	Female	20.95
Marital Status	Married	58.34
	Unmarried	37.3
	Divorced	3.15
	Widow	1.15
Age Group	20 Or Less	8.28
	21-30	56.75
	31-40	23.95
	41-50	6.48
	Above 50	5.38
Socio-Economic Status	Lower	84.03
	Middle	12.95
	Upper	3.02

In males labourers were more commonly affected with (27.62%), followed by driver (25.53%) while in females, housewives were more commonly affected. Most of patients had heterosexual behaviour (94.64%), followed by homosexual (4.25%) and bisexual (1.11%). A significant gender

disparity was observed in positive sexual exposure history with males (74.22%) outnumbers females (26.96%). Among male patients 30.25% were having sexual exposure with commercial sex workers. Occasional use of barrier contraception among exposed individual was 58.10%.

Table 2: Occupation

Occupation	Males (%) (N=3162)	Females (%) (N=838)
Labourer	29.31	8.71
Farmer	15.65	1.31
Driver	26.69	-
Skilled Worker	7.71	3.93
Service Class	9.99	3.22
Unemployed	1.73	21
Students	8.88	1.78
Housewife	-	60.02

Table 3: Sexual Behaviour

Sexual Behaviour (N=4000)	Heterosexual	94.64%
	Homosexual	4.25%
	Bisexual	1.11%
Extramarital Sexual Exposure History (N=4000)	Present	63.20%
	Absent	36.80%
Extramarital Sexual Exposure History	Males (N=3162)	74.22%
	Females (N= 838)	26.96%
Use Of Barrier Contraception Among Exposed Patients (N=2573)	Regular	33.38%
	Occasional	58.10%
	Never	8.51%
Exposure With Commercial Sex Worker Among Males (N=2347)	Present	35.32%
	Absent	64.67%

Viral STDs including Herpes genitalis 58.6%, Genital warts 17.62% and Genital Molluscum Contagiosum 17.12% were the most common STD with 93.34% of all the cases. Primary syphilis 2.25%, secondary syphilis 1.37%, Non-Gonococcal Urethritis 2.45%, Ngonococcal Urethritis 1.37%

and mixed VD were 0.2%. RPR reactivity was seen 5.4% patients. HIV seropositivity was seen in 29.62% patients. It was most commonly seen in Herpes genitalis 57.21%, followed by Genital wart 23.88%, Molluscum contagiosum 17.80%, Primary syphilis 0.4%, and Secondary syphilis 0.3%.

Table 4: STD

STD	Male	Female	Total	Percentage (%)
Herpes Genitalis	1952	392	2344	58.6
Genital Warts	486	219	705	17.62
Genital Molluscum Contagiosum	465	211	676	16.9
Primary Syphilis	83	7	90	2.25
Secondary Syphilis	48	7	55	1.37
Gonococcal Urethritis	11	0	11	0.2
Non-Gonococcal Urethritis	98	0	98	2.45
Chancroid	12	0	12	0.3
Mixed VD	7	2	09	0.2

Table 5: RPR And HIV Reactivity

	Males (N=3162)	Females (N=838)
RPR Reactive (N=216) 5.4%	5.59%	4.65%
HIV Reactive (N=1185) 29.62%	28.65%	33.29%

Discussion: The numbers of new STD cases are declining overall due to better diagnostic and management facilities by NACO and also due to increased awareness among people about STDs.

In our study, Males were more commonly affected (79.05%) than females (20.95%) making male female ratio of 3.77:1 which is comparable to a study done by Jain et al¹ in which males (83.79%) were more commonly affected with male to

female ratio of 5.17:1. The relatively low attendance of female patients may be attributed to several factors including asymptomatic nature of STDs in females which may lead to delayed or avoided treatment, social and cultural restrictions limiting their access to healthcare².

In this study, 56.75% patients belonged to the age group of 21-30 years, which is comparable to study done by Ray et al³.

Sexually active and high-risk demographic. This age group is behaviourally more vulnerable to STD acquisition due to factors such as higher number of sexual partners, frequent change of partners which is consistent with other Indian studies.

People belonging to lower socio-economic class (84.03%) were most commonly affected with STD as comparable to Nayyar et al⁴. Study, 83.34%. This suggests a substantial knowledge gap regarding STD transmission modes among lower socioeconomic class.

Among all patients, 58.34% patients were married compared to a study done by Saika et al with 46.3%² and 77.2% in Vora et al⁵. This suggests that married individuals who engage in extramarital sexual activity are at a higher risk of acquiring STDs. This higher prevalence of STDs among married individuals underscores the importance of contact tracing, counselling for safe practices and treatment of partners.

In present study among males, Labourers (29.31%) were more commonly affected, followed by drivers (26.69%). Certain occupation such as drivers, construction labourers and other labourers, require prolonged periods of separation from family, increasing the likelihood of promiscuous behaviour.

This suggests that these individuals may serve as a bridge population, transmitting STDs to the general population. While in females, housewives were more commonly affected.

Among all patients, 94.64% patients were having heterosexual behaviour comparable to Vora et al⁵. Study 97%, Narayan et al⁶. Study 95.9%, and Devi et al study 89.6%⁷. 4.25% patients were having homosexual behaviour. Many people especially homosexuals, hide their sexual history from doctors.

This can hinder effective STD management. Proper counselling of this patient helps in building trust, enabling patients to share their sexual history.

In the present study, 63.2% patients had sexual exposure history. In males, 74.22% patients while in females 26.96% patients had positive sexual exposure history. Use of barrier contraception was occasional by 58.10% of patients. Using barrier

contraception is a simple and effective way to prevent STDs as it is easily available, cost-effective and easy to use. Exposure with commercial sex workers was 35.32% among exposed males.

In this study, most common STD was Herpes genitalis (58.6%) followed by Genital Wart (17.62%), Genital Molluscum Contagiosum (16.9%), Primary syphilis (2.5%) and secondary syphilis (1.37%) which is comparable to Jain et al¹. study. The proportion of viral STDs was higher compared to bacterial STDs⁸.

Increase of viral STDs has been attributed to widespread use of broad-spectrum antibiotics, asymptomatic shedding of virus and incurable nature of viral STDs.

RPR reactivity was seen in 5.4% patients with 5.59% males and 4.65% females. HIV seropositivity was seen in 29.62% of patients. Sexually Transmitted Disease increase a patient's susceptibility to HIV by creating pathway for the virus to enter the body. In our study, Common STD associated with HIV was herpes genitalis which is consistent with study done by Kumarasamy et al⁹.

Conclusion: Incidence of viral STDs are increasing compared to bacterial STDs. Education of rural communities, healthcare providers training, prompt referrals to higher centres when necessary, education to reduce risky behaviours, implementing these strategies will help to combat this trend.

Since STDs are indicators of high -risk sexual behaviour in the community and a major health burden with risk of development of HIV and other consequences, prompt diagnosis and adequate treatment of STDs is necessary.

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