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HIV PREVALENCE AMONG PATIENTS OF SEXUALLY TRANSMITTED INFECTION IN A TERTIARY CARE HOSPITAL IN WESTERN INDIA

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ABSTRACT

Introduction: With rapid urbanization and Industrialization of our cities Sexually Transmitted Diseases (STD) and Human Immunodeficiency Virus (HIV) is becoming major public health problem. Present study was planned with following objectives to know the socio demographic profile of STD patients reporting to a tertiary care hospital during study period and to know HIV seropositivity amongst STD patients in a tertiary care hospital.

Material and Methods: This was an observational, descriptive case study of total 240 patients with sexually transmitted diseases who attended dermatological department of New Civil Hospital, Surat in time period between January 2003 and June 2004.

Observation: Total of 240 patients of STIs were evaluated. Male to female ration was 3.4:1. Majority of patients belongs to age group between 16-35 years of age group. Herpes progenitalis was commonest STI diagnosed (48.75). HIV seropositivity amongst studied patient was 18.3%. Commercial sex workers were most common source of infection. HIV sero positivity rate in migrant population was 17.56%.

Conclusion: Migration, lower socio-economic status, level of education are important social factor for spread of STIs and HIV. Viral Sexually Transmitted Infections (STI)s were prevalent than Bacterial STIs in this study.

Key Words: Sexually Transmitted Infection(STI)s, Migration, Urbanization, HIV

INTRODUCTION

STDs (Sexually transmitted diseases) constitutes a major public health problem. Surat is one of the industrialized cities of the Gujarat. In general, the diseases have been found commonly among the people of lower socio-economic status, slum dwellers, non-school going teenagers and adults from broken homes. In urban areas as research findings are evident, that those who are unmarried, divorced or separated or even married persons, away from home or due to marital disharmony are susceptible for being inflicted with the disease. The reason for increasing incidence and number of STDs are complex. The increasing drift of population into big cities in all societies changing marital patterns and tendency of engaging in sexual relationship at an early stage has all had their influence[1].

Keeping in view, an attempt is made in the STD clinic of the new civil hospital, Surat to study the socio-demographic profile and HIV prevalence among STD patients.

MATERIAL AND METHODS

This is a descriptive case study. Patients with sex-

ually transmitted diseases attending the department of dermatology, New Civil Hospital, Surat from January 2003 to June 2004 were enrolled in the study. Informed consent for the use of medical records and taking photographs was obtained from every patient. Confidentiality of patients was ensured. Investigators kept due precautions while taking informed consent from patients. Patient's appropriate referrals were done as well as patients' complete treatment and follow up was ensured.

Diagnosed cases of classical STDs (Syphilis, Gonorrhea, Chancroid, Granuloma Inguinale and Lymphogranuloma Venerum), Second generational STDSs (Herpes Genitalis, Genital Warts due to Human papilloma virus and Chlamydia infections) and third generations STDs (Human Immunodeficiency Virus(HIV) and Hepatitis B virus) reported during study period were included in the study.

Pretested proforma was used to record sociodemographic Profile of enrolled patients. Thorough general, systemic and cutaneous examination was done. Based on the examination, patients were subjected to relevant investigations like blood and serum chemistry, radiology, bed-side tissue smear and histopathological examination was carried out as required. Wet mount, KOH mount and gram staining was done whenever necessary to confirm clinical diagnosis. Appropriate referrals were made. After providing the suitable treatment, they were regularly followed up.

RESULTS

A total of 240 patients who gave informed consent were enrolled in the study for the period of 18 months in the tertiary care teaching hospital of Surat City. Majority (77.5%) patients were males. Most of the patients from age group of 26 to 35 years of age group followed by 16 to 25 years of age group (Table 1). The study shows majority of males were textile workers (60%) followed by diamond worker 12.9%. Out of 54 female patients enrolled during study period, majority were housewife (70.37%) followed by commercial sex workers (CSWs) (18.51%) in current study..HIV seropositive was highest among Drivers & other occupations followed by diamond workers and textile workers amongst males. Amongst females, HIV seropositivity was highest amongst CSWs. (Table 2). Current study shows majority of patients about 75% are illiterate or studied up to only primary level. Among them 36 HIV sero-reactive patients are illiterate or studied up to primary level. (Table 3).

Table 1: Age wise distribution of STD patients

Age Group	Male (%)	Female (%)	Total (%)
16-25	72 (38.7)	15(27.7)	87 (36.3)
26-35	81(43.5)	33(61.1)	114 (47.5)
36-45	30 (16.1)	06(11.1)	36 (15)
>45	3(1.6)	0(0%)	3 (1.3)
Total	**186 (100)**	**54(100)**	**240 (100)**

Table 2: Occupation wise distribution of enrolled male and female STD patients

Gender & Occupation	Patients (%)	HIV sero-positivity (%)
Male (n=186)		
Textile worker	111 (59.7)	19 (17.1)
Diamond worker	24 (12.9)	05 (20.8)
Student	13 (6.9)	0 (0)
Watch-man	7 (3.7)	1 (14.2)
Others (Drivers+ Waitress	31 (16.7)	7 (22.6)
Total	186 (100)	32 (17.2)
Female (n=54)		
Housewife	38 (70.4)	5 (13.2)
Commercial sex worker	10 (18.5)	7 (70)
Student	3 (5.6)	0 (0)
Others	3 (5.6)	0 (0)
Total	54 (100)	12 (22.2)

Table 3: Age group wise educational status & HIV seropositivity in STD patients

Age group	Illiterate	Primary education	Secondary Education & higher	Total
16-25	2/21(9.5)	2/30(6.6)	4/36(11.1)	8/87(9.2)
26-35	10/58(17.2)	10/42(23.8)	2/14(14.3)	22/114(19.3)
36-45	7/18(38.9)	5/13(38.5)	1/5(20)	14/36(38.9)
>45	1/2(50)	0/1(0)	0/0	0/3(0)
Total	20/99(20.1)	17/87(19.5)	7/55(12.7)	44/240(18.3)

Figure in parenthesis indicate percentage.

Table 4: Source of infection among enrolled STD patients and HIV seropositivity

Source of Infection	Patients (%)	HIV positive(%)
CSW or client	99 (41.3)	32 (32.3)
Husband or wife	55 (22.9)	5 (9.1)
Companion	46 (19.2)	1 (2.2)
Stranger	34 (14.2)	4 (11.8)
MSM	6 (2.5)	0 (0)
Total	240 (100)	44 (18.3)

Table 5: Distribution of STI among enrolled patients (other than HIV)

Disease	Male (%) (n= 186)	Female(%) (n= 54)	Total (%) (n= 240)
Herpes genitalis	101 (54.3)	16 (29.6)	117 (48.8)
Syphilis	26 (14)	1 (1.9)	27 (11.3)
Chancroid	13 (7)	3 (5.6)	19 (7.90
Lymphogranuloma Venereum	5 (2.7)	0 (0)	5 (2.1)
Urethral Discharge	17 (9.1)	0 (0)	17 (7.1)
Vaginal Discharge	0 (0)	20 (37)	20 (8.3)
Genital wart	17 (9.1)	7 (13)	24 (10)
Mollusum contagiosum	6 (3.2)	2 (3.7)	8 (3.3)
More than 2 STDs	3 (1.6)	0 (0)	3 (1.3)

Among 186 patients 148 (80%) are migrant and among them 26 (17.56%) are HIV sero-reactive while 38 (20.43%) are non-migrant and out of them 6 (15.78%) are HIV sero-reactive. Among 54 female patients 42 (77.77%) are migrant among them 10(23.80%) are HIV sero-reactive, while 12 (22.22%) are non- migrant and among whom 2 (16.66%) are HIV sero-reactive. Surat is industrial city so present study shows that 80% patients are migrant, were from different states of India. Majority of the patients were belonging to lower socio economic class. Contact tracing (source of infection in cases with HIV positivity) [Table 4 & 5]: Current study shows among 186 male patients 90(48.38%) having history of exposure to commercial sex workers and amongst them 27(30%) patients are HIV positive. Followed by 37 (18.27%) having exposure to stranger,4 are HIV positive amongst 37 (19.89%) having exposure to companion and 19 (10.21%) having exposure to wife and 6(3.22%) had history of homosexual exposure.

DISCUSSION

This is a hospital based study. So generalization for community is not possible. Our study showed highest prevalence of STIs in 26 to 35 year of age group which is consistent with study by Haripriya V. et al[1] and Vora et al[2] . As this age group is sexually active age group, the probability of STI is most in this age group. Male to female ration was 3.4:1 which was consistent with study by Raval RC et al[3]and Vora N et al. As Surat is hub of diamond industry and textile industry, in our study majority of patients were belong to labour class in consistency with PK Sharma[5] et al and Henry D et al. Desai V K et al[6] indicate higher prevalence of HIV amongst CSWs which is in consistency with our study. Illiteracy/ lower education status was considered as one of the determinanat of STI. In our study majority of patients were Illiterate or studied up to primary level in consistent with Sangole S et al[7] and Mehta D M et al[8] Haripriya V et al showed equal prevalence of genital wart as in our study. Makdani M et al[11] showed 55.43% patient of genital herpes which is consistent with this study. Genital Herpes is common cause of genital ulceration in present study which is consistent with study of Kinghorn G R[12]. Khanna N et al[13] showed decrease in bacterial STIs ad increase in viral STIs which is consistent with our study. In present study HIV sero positivity was found in 17.33% of patients with ulcerative STIs C.Johannes Van Dam et al[14] stated that there is increase in HIV prevalence in genital ulcerative diseases which is consistent with the present study. Makdani M et al studied that 61.7% STIs patients are married nearly correlate with present study. Understanding the multilevel and overlapping nature of these epidemics, and their social and structural determinants, is key to designing and implementing more effective prevention programs.[15] Individual risk behaviors influence the probability of contact with other infected or infectious individuals. However, these behaviors do not occur in a vacuum. With respect to STIs, an individual's sexual risk behavior occurs within the context of a sexual partnership or partnerships, which are, in turn, located within a wider sexual network. Social factors include the economic and social conditions that influence the health of people and communities as a whole, and include conditions for early childhood development, education, employment, income and job security, food security, health services, and access to services, housing, social exclusion, and stigma.

CONCLUSION

Present study shows the socio economic distribution and HIV seropositivity amongst STI patients of tertiary care hospital at Western India. Overall HIV prevalence among STIs patients was 18.33% and genital ulcerative diseases were most common STIs. In male patients who acquired infections from CSWs, HIV prevalence was 30%.

Limitations

This study is a hospital based study so generalization for community is not possible. Those who are attending tertiary care hospital either through referral or walk in are subjects of study. The study conducted in a Medical College Government hospital which generally caters specific group of patients, So no conclusive statement can be made for socio economic determinants' of STD/ HIV. But, this study gives the idea about sero positivity amongst STD patients as well as indicates the area for further research in community based studies.

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