

HIV SEROPREVALENCE IN VARIOUS HIGH RISK GROUPS AT JAIPUR

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100 patients of STD were subjected to HIV testing and this included cases of genital warts, chancroid, syphilis, genital herpes, balanoposthitis and gonorrhoea. 5% cases were positive for antibodies by ELISA/particle agglutination test and all were confirmed by W.B. test. 25 prostitutes showed 28% positivity for antibodies to HIV. This is an alarming fact and more stress for HIV positivity to be given in STD patients and prostitutes.

Key Words : STD patients, Prostitutes, HIV seroprevalence

Introduction

AIDS is spreading like a wild fire. It has established its root in every parts of India. The most common route of transmission is heterosexual/homosexual activity, transfusion of contaminated blood and its products, IVDUs, perinatal via breast feeding. Prevalence of HIV infection in female commercial sex workers is also very high.^{1,2}

Since no authentic study has been carried from the Rajasthan to determine the prevalence of HIV infection in various high risk groups and looking towards the rising trend of HIV infection in other parts of country this study was taken up to determine the incidence of HIV infection in various high risk groups.

Materials and Methods

A total 250 cases were taken in this study. This included 100 STD cases, 25 prostitutes, 25 blood recipients, 25 health care workers, 25 prisoners, 25 truck drivers and 25 intravenous drug addicts.

10 ml venous blood was collected by disposable syringe. Serum was separated and

sample were subjected to ELISA/particle agglutination test for HIV antibodies.

The test was repeated in positive samples and confirmed by WB test. A proforma was designed which included name, age, sex, occupation, marital status, sexual habit, any past history of STD, blood transfusion, general physical examination, and examination of genital organs.

Results

Out of 100 patients attending STD clinic, there were 23(23%) cases of genital warts, 22(22%) cases of chancroid, 19(19%) cases of syphilis, 15(15%) cases of genital herpes, 10(10%) cases of balanoposthitis, 8(8%) cases of gonorrhoea, 2(2%) cases of NSU, and 1(1%) case of scabies. Among the 100 STD cases, 5(5%) were positive for antibodies to HIV by ELISA/particle agglutination test and all were confirmed by WB. Out of 100 STD cases, there were 19 VDRL reactive cases. No other STDs showed VDRL reactivity. Out of 25 prostitutes 7(7%) were HIV seropositive and 10(40%) were VDRL reactive. No other group showed HIV seropositivity or VDRL reactivity.

The sexual behavior in these patients indicate that 98 (98%) were heterosexual. 2(2%) were bisexual and no homosexual was detected in this study.

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Discussion

AIDS is an infectious disease, the venereal transmission of HIV can occur in homosexuals, heterosexuals, and sex partner of high risk group members. The association of genital ulcer disease and HIV infection is quite strong. Sexually transmitted disease that causes inflammatory or ulcerative lesions of the genital tract act as an important cofactor in increasing the risk of transmission of HIV through sexual contact.³ Among the 100 STD cases, 82(82%) were in the age group of 21-40 years and this is the sexually active age group. Simosen et al⁴ observed 11.2% HIV seropositivity in 19-35 years of age group patients attending STD clinic. In this study 5% HIV seropositivity was seen in patients attending STD clinic.

In an another study Cameron et al⁵ observed 12% HIV seropositivity in 421 men attending STD clinic. In this study maximum (15.7%) HIV seropositivity was seen in patients who were VDRL reactive. 9.09% HIV seropositivity was detected from the cases of chancroid and no other STD group showed HIV seropositivity. 98% heterosexuals among STD cases indicate that heterosexual transmission is more common than homosexual or bisexual. Whereas in the study of Carne et al,⁶ Kingesley et al,⁷ Melbye et al⁸ showed 29.3%, 3.8%, 8.8% HIV seropositivity in homosexual respectively. Many authors have studied HIV seroprevalence among patients attending STD clinic. Tripathy et al,⁹ Pankaj Alakasmi et al,¹⁰ observed 13.6% and 6.5% HIV seropositivity respectively. In this study 5% HIV seropositivity is observed in patients attending STD clinic.

Commercial sex workers act as a reservoir of HIV infection and it is an important and efficient way of transmission of

HIV. Poverty, lack of education in prostitutes favours the rapid transmission of HIV.

Among the 25 female commercial sex workers, 7(28%) were HIV seropositive and all were in the age group of 21-30 years. Although this sample of study is small but it shows very high incidence (28) of HIV infection and all these prostitutes were from the road side areas. Their main clients were truck drivers. 40% VDRL reactivity was observed in commercial sex workers. Rubsamen et al¹¹ in 1992 at Bombay reported 18% HIV seropositivity in prostitutes.

Blood transfusion is most efficient way of HIV transmission. In this study 25 children of thalassaemia who required regular blood transfusion, were found neither VDRL reactive or HIV seropositive. Sen et al¹² in 1992 has reported 8.9% seropositivity for HIV in patients receiving blood and blood products.

25 health care workers coming in contact with STD patients or other patients were found negative for VDRL or HIV. 0.42% HIV seropositivity have been observed by Marcus et al¹³ in health care workers.

Prisoners are at high risk in acquiring the HIV infection because homosexuality and drug abuse are common practices in prisoners. In this study, none out of 25 prisoners were found VDRL reactive or HIV seropositive.

Truck drivers are at high risk for both receiving and transmitting HIV infection. They are often the clients of female commercial sex workers at road sides. In this study, none of the 25 truck drivers were found VDRL reactive or HIV seropositive. Singh et al¹⁴ studied 32 truck drivers and they showed 0.99% HIV seropositivity.

Intravenous drug abuse is very common in eastern states of India like Manipur, Mizorum and Nagaland. Sarkar et al¹⁵

reported 10-15% HIV seropositivity in I.V. drug users. In this study none of the 25 IVDUs were found HIV seropositive or VDRL reactive. In a study Saxena et al¹⁶ observed no HIV seropositivity among 40 IVDUs. It indicates that like eastern states of India, HIV seropositivity is not common in northern states.

This study clearly indicates that among the 5 HIV seropositive, 3 were from 19 VDRL reactive cases of syphilis and 2 were from 22 VDRL non reactive cases of chancroid. There was no homosexual patients in this study but most of these patients were heterosexually promiscuous. 7(28%) commercial sex workers were HIV seropositive. Other high risk groups like blood recipients, health care workers prisoners, truck drivers and IVDUs neither showed VDRL reactivity nor HIV seropositivity.

Patients attending STD clinic, heterosexual promiscuous persons, and commercial sex workers are the definite high risk group for the HIV transmission and more emphasis should be given for study of this population. STD clinic where most of these cases visit should be strengthened so that patients coming with sexually transmitted diseases can be diagnosed and treated in a shortest possible time. This is an established fact that ulcerative diseases are the definite portal of entry for HIV and once these sexually transmitted disease are diagnosed and treated in shortest possible time with best medicines, there is less risk of HIV transmission.

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