HIV INFECTION IN PATIENTS OF SEXUALLY TRANSMITTED DISEASES

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A total of 1027 male patients suffering from sexually transmitted diseases (STD) during 1990 to 1996 were screened for HIV infection. All cases were in the age group 17 years to 48 years. One hundred and sixty-seven STD cases (16.3%) were found to have HIV infection. A rising trend in incidence of HIV infection in STD patients from 1990 (2.8%) to 1996 (27.8%) was noticed contrary to declining trend of STDs from 213 cases in 1990 to 79 cases in 1996. The incidence of HIV infection was 30.3% in lymphogranuloma venereum, 19.5% in chancroid, 13.5% in syphilis, 17.6% in herpes genitalis, 6.7% in gonorrhoea and 11.2% in other STD cases.

Key Words : HIV infection, Sexually transmitted disease (STD), Chancroid, Gonorrhoea, Syphilis, LGV, Herpes genitalis

Introduction

The modes of transmissions of HIV infection in majority of cases are limited and can be attributed to sexual contact, parenteral transmission, through receipt of infected blood and blood products, organ or tissue, percutaneous occupational exposure, drug injection and lastly perinatal transmission from an infected mother. Sexual transmission accounts for nearly 90% of cases of HIV infection throughout the world.[1] Some of the Indian studies have also attributed sexual route of transmission in 85% cases of HIV infection[2] High prevalence of HIV infection among commercial sex workers in India is the main cause of this transmission.[3] A genital or anorectal ulcer may increase the risk of HIV transmission by about 30-fold.[4] The present study has been done to find out association of HIV infection with various sexually transmitted diseases among Armed Forces personnel in India.

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Materials and Methods

The study was conducted at Department of Dermatology and Venereology, Military Hospital, Kirkee and Command Hospital (Southern Command), Pune. The material of this study comprised of all cases of sexually transmitted diseases admitted at above centres from July to December 1996. A detailed history covering all relevant points was recorded in all cases. Each patient underwent a thorough general physical, systemic, dermatological and venereological examination. All relevant investigations i,e. VDRL, DF microscopy for T.pallida, Gram staining etc were done to confirm stds. Competitive ELISA test was done in all cases for HIV infection. Those found positive were subjected to Western blot test for confirming HIV infection. The results were compiled and data analysed.

Results

A total of 1027 cases were diagnosed to have different STDs from 1990 to 1996. All our cases were males, in age group of 20-30 years (58%). The year wise incidence shows 213 cases in 1990, 228 cases in 1991, 174 cases in 1992, 114 cases in 1993, 99 cases in 1994, 120

cases in 1995 and 79 cases in 1996. Out of total 1027 cases 167 (16.3%) were having HIV infection. The year wise incidence of HIV infection among STD cases shows 6 (2.8%) cases in 1990, 16 (7%) in 1991, 23 (13.2%) in 1992, 43 (37.7%) in 1993, 24 (24.2%) in 1994, 33 (27.5%) in 1995 and 22 (27.8%) in 1996. An increasing trend of HIV infection among STD cases from 1990 to 1996 was noticed contrary to decreasing trend in incidence of STD itself. Out of total 1027 cases, 334 (32.5%) had chancroid, 237 (23%) had syphilis, 122 (11.9%) had LGV, 130 (12.6%) had gonorrhoea, 32 (3.2%) had herpes genitalis and 170 were of miscellaneous STDs which included balanoposthitis,NSU, condylomata acuminata etc. The HIV positivity was seen in 32 (13.5%) cases of syphilis, 65 (19.5%) cases of chancroid, 37 (30.3%) cases of LGV, 8 (6.7%) cases of gonorrhoea, 6 (17.1%) cases of herpes genitalis and 19 (11.2%) other STDs. All patients gave history of extramarital heterosexual exposure with commercial sex workers or amatures. Out of 167 HIV positive cases, 119 (71%) gave history of multiple exposures and 48 (29%) single exposure.

Discussion

Heterosexual exposure remains the most common route of transmission of HIV infection throughout the world. Genital trauma and exposure to blood during intercouse may be factors possibly facilitating transmission. Several studies have also established the role of genital ulcer diseases facilitating the transmission of HIV positivity in infection. [5,6] The higher prevalence of HIV positivity in chancroid, syphilis and herpes genitalis has also been described. [7,8] Gonorrhoea and chlamydial infection have also been identified as risk ractors for HIV infection among female prostitute. [9] The increased risk of transmission of HIV infection in genital ulcer disease is probablly due to break in mucosal integrity which facilitates entry of HIV.[10] It is also postulated that chlamydial and gonococcal infection leading to cervicitis provides an increased number of target cells or other cervical changes in female which may enhance likelihood of HIV infection.[11] There are reports of increasing HIV positivity in STD clinic at Bombay and Pune as well as among commercial sex workers.[3] Arora and Sastry have reported 17 cases of HIV positive STDs from Armed Forces and majority of them (88.2%) were having genital ulcer disease.[12]

In our study we found increasing trend of HIV positivity among STD cases. It was just 2.8% in 1990 which rose to 27.8% in 1996 and this is in spite of decrease in STD cases from 213 in 1990 to 79 in 1996. Our findings correlate with findings of high prevalence of HIV infection in STD clinic at Bombay and Pune.[3] The main reason for increasing incidence of HIV infection in STD cases is directly related with high prevalence of HIV infection and STDs among commercial sex workers (CSWs) from whom the infection was transmitted in 90% of cases. The higher incidence of HIV infection (81.4%) was seen in patients with genital ulcer disease as compared to nonulcerative STDs (18.6%) and almost similar trend was also seen in other studies.[12] Among genital ulcer dieseses our study shows highest incidence of HIV infection in LGV (30.3%) followed by chancroid (19.5%), herpes genitalis (17.6%) and syphilis (13.5%).

There is now sufficient evidence from different studies including present one that both genital ulcer diseases as well as nonulcerative STDs enhance sexual transmission of HIV. It is therefore imperative to control STDs and treat them at the earlest in order to reduce the risk of HIV transmission. More aggressive approach is required to impart health education to public and CSWs regarding preventive measures for both STD s and HIV infection. This will go a long way to reduce the incidence of HIV infecion.

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