

Epidemiological profile of HIV/ADS Patients in Salem

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ABSTRACT

The Present study declared the prevalence of 1.79% of HIV/AIDS patients from the attendees of Sexually Transmitted disease department, Government Mohan Kumaramangalam Medical College Hospital, Salem. Sex incidence showed 4 9.1% of males and 50.9% of females. In our study, 112 collegiate were recorded and we have attained failure of education among literates also. Hence concentration on easy and passive education is needed for better interruption of HIV transmission. Regarding occupation, farmer, housewives, caterers, weavers, painters and tailors were also recorded along with high risk groups like drivers and masonry workers. From this, we came to know that HIV has encroached all sectors. Nine hundred and seventy nine males were uncircumcised. All used condoms inconsistently. The Present Study Concluded that the predominant mode of transmission was by heterosexual route. PID, Trichomoniasis, Genital Candidiasis, HSV2 infections, Genital HPV infection and Syphilis were the prevalent STDs co-infected with HIV. Community care and risk reduction counseling are needed for the interruption of HIV transmission.

Keywords: HIV/AIDS, Epidemiology, Salem, Survey.

1. INTRODUCTION

Proper understanding about the HIV/AIDS epidemic is essential for developing better public health strategies and allocating sources more effectively to prevent the spread of HIV. Heavily populated India estimated about 5.7 million people are living with HIV/AIDS than any other nation in the world. Overall around 0.9% of India's population is living with HIV but still exact incidence of HIV/AIDS is remains unclear [1]. Majority of the patients were transmitted heterosexually, some through blood transfusions and sharing of improperly sterilized sharp instruments and Male to female transmission are more. Majority of the patients were belonging to sexually active period and low socio-economic groups. HIV infected women can transmit HIV to their children during pregnancy, delivery and through breast milk (late postnatal transmission). Median time of progression of HIV to AIDS may be as long as 8 to 10 years. As a result of the prevalence of HIV/AIDS, HIV has had a major impact on morbidity and mortality among the adults between 21-39

Greater understanding of the spectrum of opportunistic infection is necessary. Vast majority of the infected persons are identified by antibody test only. HIV/AIDS patients need a life time follow up medically and psychologically. In India, still there is a lack of laboratories equipped with

advanced techniques, research facilities, equipments and medical personals to deal with HIV/AIDS patients. National HIV/AIDS surveillance provides information's on current HIV prevalence, it's morbidity and mortality which is essential to predict accurate trends and pattern of HIV in India. The Study of trends in HIV spread has contributed to a better understanding of dynamic and impact of the epidemic in India and various parts of the world also. [2]

2. METHODOLOGY

The study was conducted in Mohan Kumaramangalam Medical College Hospital, Salem, Tamilnadu. The hospital is multispecialty and super specialty government hospital having capacity of 500 beds for inpatient hospitalization along with excellent out patients facilities maintained by qualified specialists. STD Department was chosen for the present Epidemiological study. 982 HIV/AIDS Males and 1018 HIV/AIDS Females were included in this study. All the data obtained from patients were calculated, tabulated and analyzed.

2.1. Study period

The Present Study was conducted for 180 days. All the Patients were counseled in a separate room confidentially and informed consent obtained from the patients for this study.

2.2. Inclusion criteria

Both the HIV/ AIDS, All the age groups, both the sexes and Patients with sequelae infections of HIV/AIDS were included in this study.

2.3. Exclusion criteria

The patients do not cooperate for studies were excluded.

2.4. Ethical approval

The above proposal was submitted for the ethical approval from the directorate of medical education and it was approved before starting the study in the hospital, and proper ethical approval from the concern government hospital was obtained.

2.5. Observation

We have enrolled 982 males and 1018 female HIV/AIDS patients for our study. Age profile showed 19 males and 21 females were below 10 years of age. Twenty one males and 32 females were in between 11 and 20 years of age. Three hundred and thirty males and 436 females were in between 21 and 30 years of age. Four hundred and twenty three males and 372 females were in between 31 and 40 years of age. One hundred and sixty one males and 141 females were in between 41 and 50 years of age. Twenty eight males and 16 females were above the age of 50 years. Regarding the domiciliary pattern 636 males and 821 females were rural dwellers; 346 males and 197 females were urbanites. Marital status showed that 118 males and 44 females were unmarried; 682 males and 907 females were married only one time; 160 males and 64 females have married more than one time; 22 males and 3 females were living together with their partners. Regarding promiscuity 856 males and 107 females were promiscuous; 126 males and 911 females were non promiscuous. Educational profile showed 286 males and 412 females were illiterates; 392 males and 381 females were upto primary level of education; 244 males and 123 females upto secondary level of education; 60 males and 52 females were collegeates. Regarding the occupational profile 444 males and 452 females were agri workers; 286 females were housewives; 186 males were lorry drivers; 81 males and 92 females were masonry workers; 73 males and 62 females were doing silver works; 54 males and 34 females were cooks; 51 males and 32 females were weavers; 38 males and 6 females were tailors; 9 males were painters; 46 males and 54 females were miscellaneous workers. Regarding the personal habits 731 males and 2 females were alcoholics; 684 males were smokers; 41 males were khasha addicts; 56 males and 147 were tobacco chewers; 17 males were hans

chewers; 43 males and 869 females didn't showed any bad habits. Regarding the clinical profile, 24 males and 33 female children were HIV seropositives; 2 males and 2 female children were suffering from AIDS; 2 male children and 2 female children with AIDS were expired during the study. In adults 887 males and 916 females were HIV seropositives; 28 males and 24 females were suffering from immunological AIDS; 27 males and 25 females were belonging to clinical AIDS; 12 males and 15 females were expired due to AIDS. Obstetric history revealed that 66 females were nulliparous, 946 females were multiparous and 6 females were pregnant at the time of screening. They were counselled for caesarean delivery. Only twelve females underwent caesarean delivery. 940 females delivered their children via naturalis. Associated STD's were PID, TV, Genital candidiasis, Herpes progentalis, Genital Warts, Syphilis, Granuloma inguinale, LGV and NGU.

3. DISCUSSION

India's epidemic is 'on an African trajectory' [3]. Each national epidemic is composed of multiple epidemics. Each one is composed of its own rates, pattern and trends. The differences and their influences will continue for a long spell. Unless the study of epidemiology is not known very well, it is difficult to interrupt the continuous transmission of HIV.

HIV is an un welcomed guest of the human host. Global estimates of HIV/AIDS reported that nearly 65 million people are infected by HIV worldwide [4] which made us to study the prevalence and epidemiology of HIV/AIDS patients in Government Mohan Kumaramangalam Medical College Hospital, Salem.

In Asia 8.3 million people are living with HIV/AIDS [3]. HIV infection is common in India. Exact incidence is unknown. HIV infection is widespread and rapidly penetrated the societies in India which does not recognize as being at risk. AIDS is coming out of the closet in India, there were about 5.7 million people living with HIV/AIDS (I). Nearly 52,036 AIDS cases were reported in Tamilnadu [5] which was the highest number than any other states. HIV infection among pregnant women is also raising. Our 4 years study in GMKMCH STD Department reported 55465 attendees. Out of this, 11162 patients were suffering from HIV/AIDS/STDs. In these patients, 2000 (1.79%) HIV/AIDS patients were recorded. This incidence was only a small quantum. Further screening is necessary in reached and un reached segments.

Forty nine point one percent (49.1**) of males and 50.9% of females were the victims in

our study. Sex incidence was almost equal. In developing world, women account for at least 50% of all HIV cases. In industrialized nations, the proportion of women with HIV is increasing steadily. Unfortunately, the women's incidence of HIV/AIDS continues to be under reported [6]. Therefore routine screening of HIV should be a standard care not only in STD clinics but also in obstetric and gynecology clinics to bring out more number of cases.

Age profile of our study showed that 1561 patients (78.05%) were in between 20 and 40 years of age simulated the study of Ellerbrock [7].

HIV occurs disproportionately in poor people living in rural areas, low level of education, sexual contacts with csWs at early age, number of life time sex partners, alcohol, unprotected sex and multiple sex partners may be the factors facilitating the transmission of HIV [8]. Our study also disclosed these factors which paved the road for transmission of HIV. In our study, 112 collegiate were recorded. Among these collegiate even after repeated counseling, two post graduate lecturers became pregnant second time showed failure of education in some literates also. Sexual drives are increasingly strong as arousal increases, hence planning for protective sex is mandatory.

Most of our patients were married which may facilitate the transmission of HIV to their innocent and ignorant spouses and to their casual contacts. There is a potential danger of vertical transmission through the infected female spouses. Infected unmarried patients can transmit HIV to their lovers and casual contacts.

HIV epidemic affected all sectors of Indian society. Increased cases were noticed among people who had been previously thought as low risk groups [9]. In our study along with the high risk groups, Farmers, masonry workers, silver workers, cooks, weavers, tailors, housewives and rich member of the society were observed. This may be a slight variation from the previous literature.

Incidence of HIV seropositives were also on the rise. Few losses were observed due to AIDS which was mainly due to poor nutrition, poverty and lack of ART in many places.

Most of the cases had occurred through heterosexual contact [10]. Heterosexual men and women who have had the greatest number of different sex partners are most likely to be HIV infected [10]. In our study also, the predominant mode of transmission was by heterosexual route.

Uncircumcised men may be at increased risk for transmission of HIV [12]. In our study 979

patients were uncircumcised and only 3 were circumcised remained the risk of HIV.

Use of condom decreased the risk since it limits the exposure of semen to vagina! mucosa but this can be used as a precautionary measure only and not as a full protective method. Even with application of condom HIV transmission is equivocal [13]. Our study observation showed that all male patients used condoms inconsistently.

STDs are a good marker of HIV risk behavior [14]. In our cases most of the victims either has had suffered or suffering from either ulcerating STDs or discharge producing STDs and reproductive tract infections.

PID, the infection of the internal reproductive organs in women is co-epidemic with HIV of reproductive age. PID is a clinical syndrome of polymicrobial etiology and attributed to the ascent of the organisms from the vagina. The seroprevalance of HIV was 15-17% among patients with PID [15]. Higher incidence of PID was noted in our HIV / AIDS patients (63.06%). This may be due to the PID as the cause for acquiring HIV or HIV as the cause for PID. Exact pathogenesis is unknown. In developing countries and in our study PID may be due to induced abortion, puerperal sepsis, IUCDs and the rest by STDs. Clinical diagnostic criteria for PID are not conclusive. Diagnosis of PID was made on by following clinical criteria ie., white discharge per vaginum, LBA, Lower abdominal tenderness, monorrhagea, passing clots, irregular periods and chandelier's sign positivity. PID may present with subtle or mild symptoms or asymptomatic even in HIV seropositives. Infection with HIV may also influence the course and clinical manifestations of PID particularly in AIDS patients. HIV infected women respond equally well to the standard antibiotic regimens.

Trichomonas vaginalis infection is associated with PID in HIV infected women. HIV-1 may also alter the host microbe relationship resulting in an apparent increased risk of PID in the presence of *T. Vaginalis* [16] which may be true with our cases also.

Genital candidacies may enhance HIV transmission during vaginal intercourse through the inflammatory cells and disruption of the genital epithelium by *Candida* sp which may create a portal of entry for this tiny virus.

HSV2 acts as a significant risk factor for acquisition and transmission of HIV. HSV2 seropositivity is an independent risk factor for acquisition of HIV among heterosexual men and women. Genital ulcers appear to facilitate the

transmission of HIV [17] which may be the route cause for HSV/HIV co epidemic is our patients.

It is likely that most HIV seropositive adults acquired HPV before acquiring HIV. It is unknown whether persons who are coinfectd with HIV and HPV may be more efficient of transmitting HPV to susceptible sexual partners. HPV related neoplusia may be more in HIV infected person [18]. It is unpredictable in our small quantum of patients.

The prevalence of HIV and syphilis was higher in lower communities [19]. The seroprevalance of syphilis may be an association or our patients might have acquired HIV during the ulcerative stage of syphilis.

Caesarean delivery may minimize the risk of transmission of HIV. Awareness should be given to HIV positive pregnant mothers for caesarean delivery and not for breast feeding. In our study, only 6 deliveries planned and conducted by caesarean section. Remaining 940 cases, delivery occurred via naturalis ignorantly.

Education, counseling, HIV test conduction, appropriate medical and psychological follow up, behavioral change and supportive environment and planning for protection are the ultimate goals for the prevention of HIV transmission. Large scale of India's HIV epidemic, the diversity of spread, the country's lack of finances and resources act as the present barriers to Indian's programme. Our motto is strict vigilance in preventing the extension of the epidemic to uninfected humans.

ACKNOWLEDGEMENT

We acknowledged to the Patients, Managements and staffs of Government Mohankumaramangalam Medical college, Salem, India

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