

Seroprevalence of HIV Amongst the Patients Attending the ICTC Centre At RIMS, Ranchi

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ABSTRACT

Introduction: HIV is a major global disease, affecting millions of people worldwide. In 2015, it was estimated that 36.7 million people are affected with it. Among this, 1.8 million were children. The global HIV prevalence was then 0.8%. Majority of the sufferers reside in low and middle income countries. The people who died because of AIDS in 2015, were approximately 1.1 million. Since the beginning of this dreaded disease, an estimated 78 million people have become infected with HIV and 35 million people have died of AIDS related illnesses.

Materials & Methods: The aim of present study was to estimate the seroprevalence amongst the patients attending ICTC CENTRE at RIMS, RANCHI. It is a retrospective study. This retrospective study was conducted in the department of Microbiology, RIMS, Ranchi during April 2015 to March 2016. The HIV tests were done as per NACO guidelines using COMBAIDS, ALERE Determine and AIDS-SCAN TRISPOT tests.

Results: A total of 6112 clients were screened for HIV, out of which 4.69 % (287) were found to be positive with mean age 35-49 years (40%).

Conclusion: ICTC is a place where a person is counselled

and tested for HIV, on his own free will or as advised by medical provider and convinced that the test is mandatory. He/she is assured that the process will be confidential. More number of persons of higher socio-economic class are infecting, so education regarding HIV/AIDS is necessary for them also.

Keywords: HIV, Prevalence, NACO, ICTC.

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INTRODUCTION

HIV, the virus that causes AIDS, is one of the world's most serious health and development challenges. According to UNAIDS; There was approximately 36.7 million people worldwide living with HIV/AIDS at the end of 2015. Of these, 1.8 million were children (<15 years old).¹ Despite being home to the world's third-largest population suffering from HIV/AIDS (with South Africa and Nigeria having more), the AIDS prevalence rate in India is lower than in many other countries. In 2014, India's AIDS prevalence rate stood at approximately 0.26% — the 90th highest in the world.² The spread of HIV in India is primarily restricted to the southern and north-eastern regions of the country and India has also been praised for its extensive anti-AIDS campaign.³ India has the third largest HIV epidemic in the world. In 2015, HIV prevalence in India was estimated 0.26%.⁴ This figure is small compared to most other middle-income countries but because of India's huge population (1.2 billion) this equates to 2.1 million people living with HIV. In the same year, an estimated 68,000 people died from AIDS-related illnesses.⁵

Overall, India's HIV epidemic is slowing down, with a 32% decline in new HIV infections (86,000 in 2015), and a 54% decline in AIDS-related deaths between 2007 and 2015.⁴

The HIV epidemic in India is driven by heterosexual sex, which accounted for 87% of new infections in 2015. However, the epidemic is concentrated among key affected populations such as sex workers. The vulnerabilities that drive the epidemic are different in different parts of the country.⁶

The five states with the highest HIV prevalence (Manipur, Mizoram, Nagaland, Andhra Pradesh and Karnataka) are in the east or south of the country. Some states in the north and northeast of the country have also reported rising HIV prevalence.⁵

Integrated counselling and testing centre (ICTC) is the key component in preventing spread of HIV, promote behavioural changes to range of intervention in prevention and care ensuring availability of professional, client-centred counselling and testing services in an easily accessible, non-discriminating environment

where clients are treated with dignity and respect. Data generated in ICTC may provide important clues to understand the epidemiology of disease in a particular region.⁷

It is need of the time that people should be made aware of HIV in the country. Thus, counselling and testing services are important components of prevention and control of HIV/AIDS in the country.

MATERIALS AND METHODS

It is a retrospective study. The duration of study period was from April 2015- March 2016. The study was conducted at ICTC of Rajendra institute of medical sciences, Ranchi. The HIV tests were done as per NACO guidelines using COMBAIDS, ALERE

Determine and AIDS Scan TRISPOT tests. The samples were considered as positive when found reactive by all three different methods.

The samples tested positive in the first method, COMBAIDS, were subjected to tests with two different rapid tests, that is, ALERE Determine HIV-1/2 rapid test (Alere medical, JAPAN) and AIDS scan trispot test (Bhat biotech, KARNATAKA). All tests were done according to manufacturer's instructions.

Positive patients were sent to ICTC counsellor for further counselling. HIV infected persons were referred to antiretroviral therapy (ART) centre of our hospital for further management. All the data was entered in the Microsoft Excel sheet.

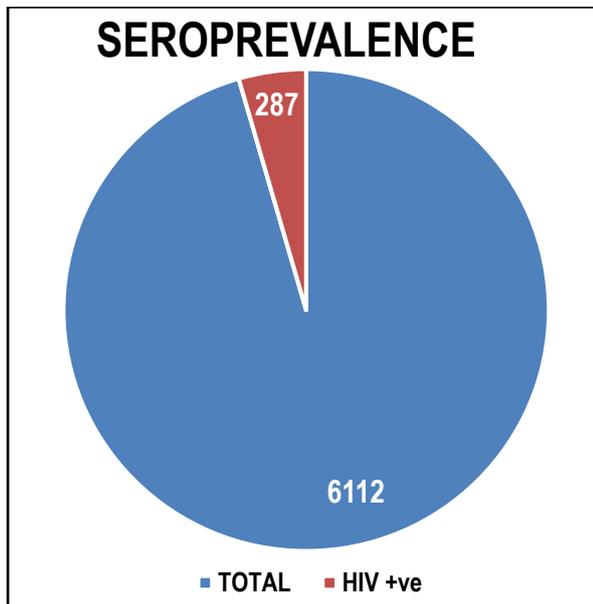


FIG 1: Pie chart depicting the fraction of population suffering from HIV among the total study population.

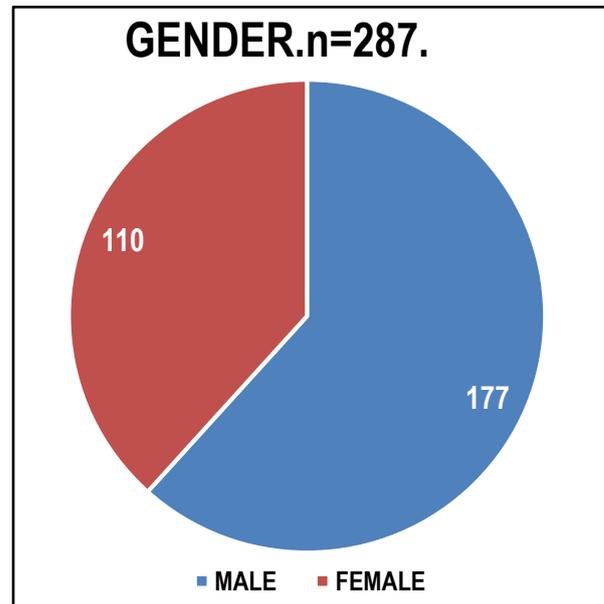


FIG 2: Pie chart depicting the gender-wise distribution of HIV among positive individuals.

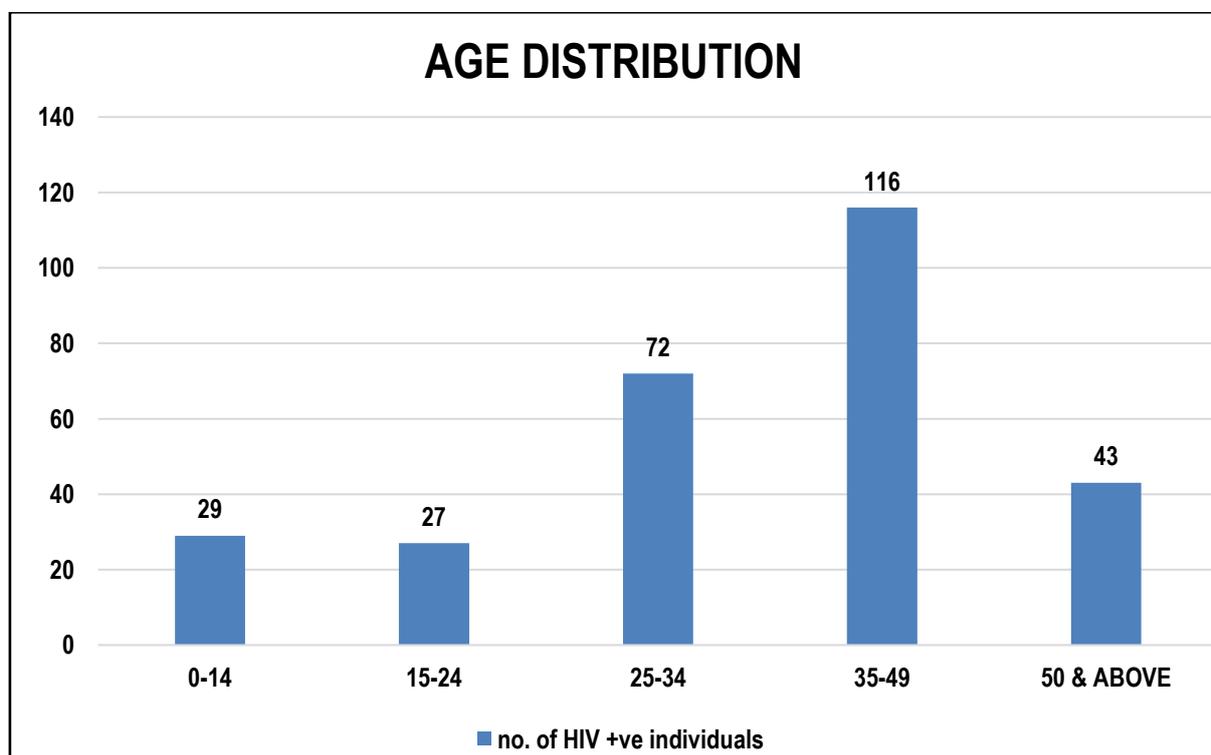


FIG 3: Bar chart showing age-wise distribution of HIV +ve individuals.

RESULTS

A total of 6112 patients visited our ICTC centre for HIV screening. They were referred from various departments of RIMS. Some of them also came voluntarily on suspicion of infection. Among them 287 (4.69%) patients were found to be HIV +ve. [FIG: 01]

It was found that more males (61.67%) than females (38.33%) were infected with HIV. (FIG: 02)

Maximum seropositivity (40.42%) are from 35-59 years age group followed by 25.09% in the age group of 25-34 years. (FIG: 03)

On observation of educational background, maximum infected patients (45.30%) are secondary school educated, followed by illiterate (34.84%). Least number (2.44%) are those who atleast completed their college education. (FIG: 05)

About 54.70% patients who were infected are married. Singles comprise only 10.45% of the scenario. (FIG: 06)

The most common route of transmission was heterosexual (82.93%), followed by parent to child transmission (9.76%) and homosexual (0.67%). (FIG: 06)

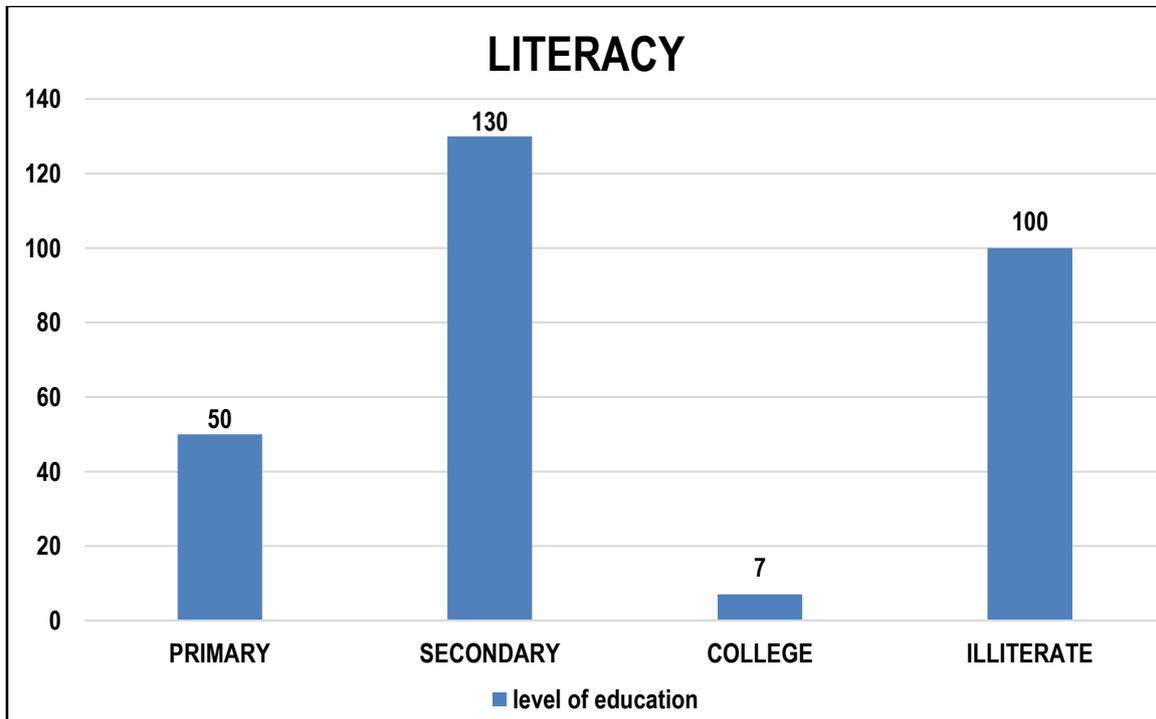


FIG 4: Bar-chart showing the correlation between the HIV +ve individuals and their educational status.

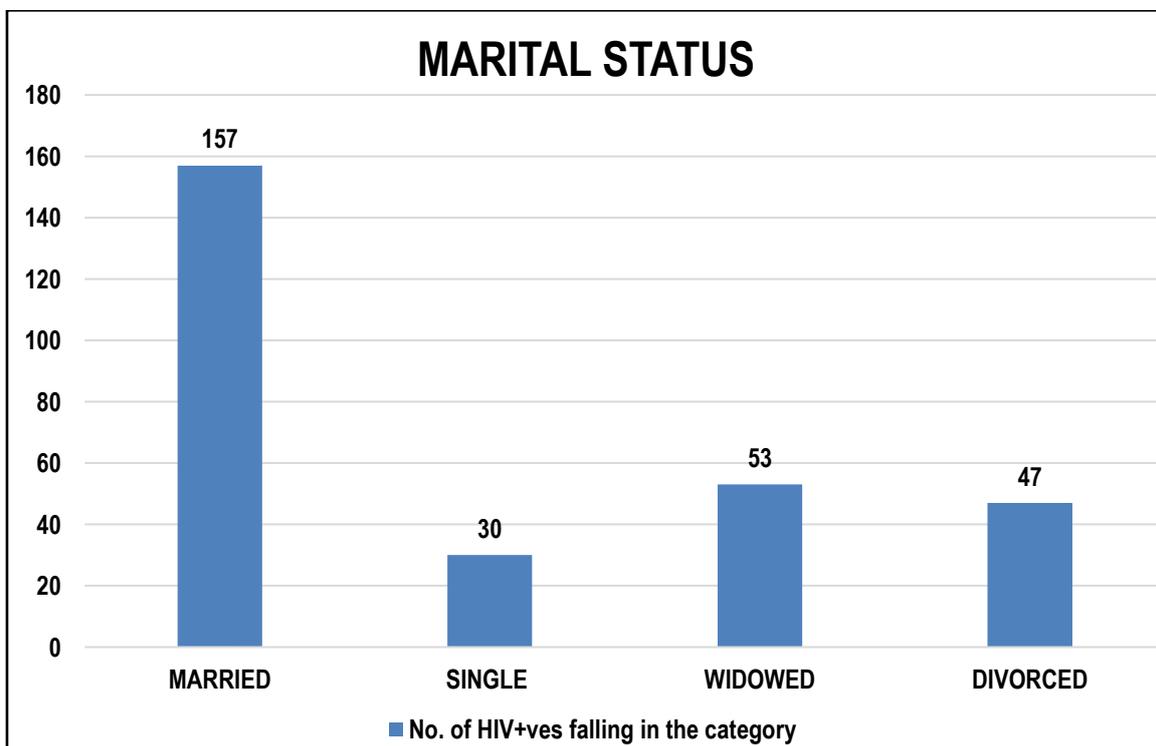


FIG 5: Bar chart depicting the correlation between HIV +ve individuals and their marital status.

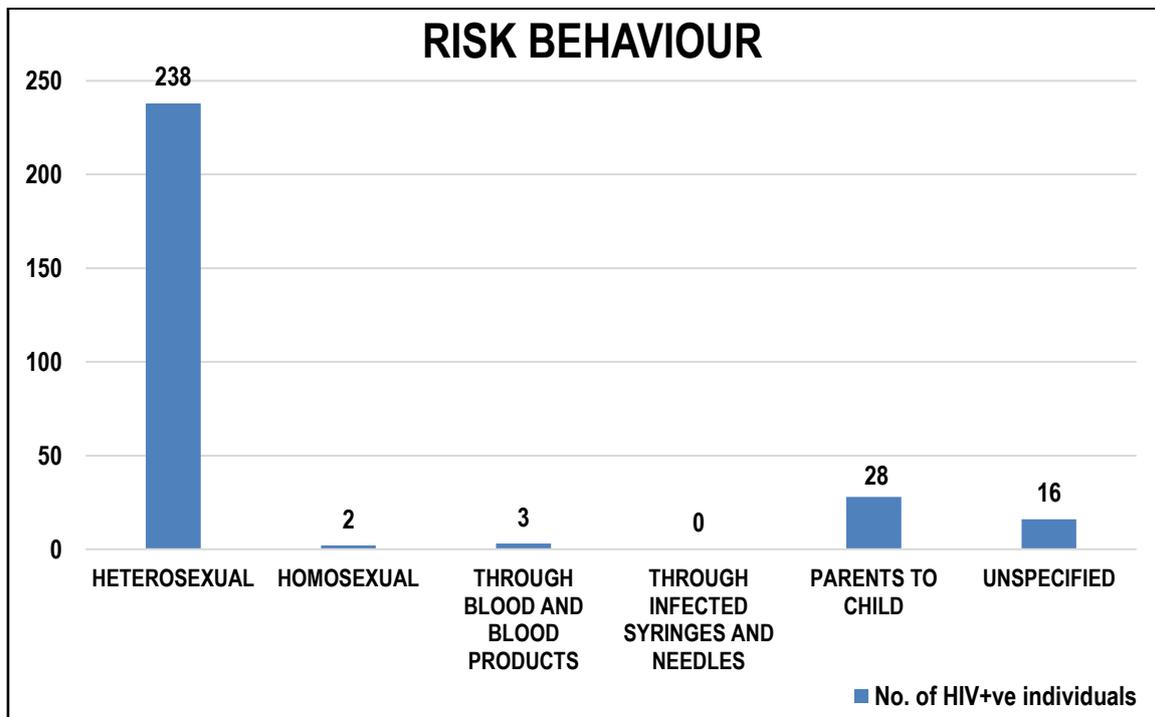


FIG 6: Bar chart showing the number of individuals getting infected by different routes of transmission.

OBSERVATIONS AND DISCUSSION

The present study is done for monitoring the prevalence and risk factors of HIV infection among a large number (6112) of clients attending ICTCs (excluding antenatal women, since surveillance in this group is being carried out routinely in PPTCT).

In present study, it is seen that seropositivity is 4.69%. This is similar to study done in Chennai (4.1%).⁸

In an another study done at a ICTC of North India, the seropositivity was found 3.8% in 2013.⁷ Same study also showed the remarkable decrease in prevalence rate from 2009-2013 i.e. 8.4% in 2009 to 3.8% in 2013.⁹

The estimated adult prevalence was 0.32% in 2008 and 0.31% in 2009. The states with high HIV prevalence rates include Manipur (1.40%), Andhra Pradesh (0.90%), Mizoram (0.81%), Nagaland (0.78%), Karnataka (0.63%) and Maharashtra (0.55%).³

The adult HIV prevalence in India is declining from estimated level of 0.41% in 2000 through 0.36% in 2006 to 0.31% in 2009. Adult HIV prevalence at a national level has declined notably in many states, but variations still exist across the states. A decreasing trend is also evident in HIV prevalence among the young population of 15-24 years. The estimated number of new annual HIV infections has declined by more than 50% over the past decade.³

More males (61.67%) than females (38.33%) were found infected. No transgender was found in our study. This finding is in accordance to the national figures.

In a study done at Ahmedabad, 64% males and 36% females are observed.¹⁰ In another study of North India, 62.4% are males, 37.4% are females and 0.2% are transgender.⁷

Seroprevalence was significantly high in males in this study, but HIV/AIDS in India is undergoing a feminization because females are increasingly getting infected, which is indicated by the increasing HIV prevalence in females.⁹

Heterosexuality (82.93%) is still the most common route of transmission in Indian scenario, followed by parents to child

(9.76%) transmission. Through blood and blood-products (1.05%) and homosexuality (0.67%) are the other less common modes of transmission.

It was seen that most (45.30%) infected persons are secondary educated followed by illiterate (34.84%). This is in contrary to other studies where more number of illiterate persons are the sufferer.^{7,8,10} This finding can be explained by increase in literacy rate in our society. Also, it reflects the increasing trend of high risk behaviour among highly educated class. Increasing extra-marital relationship, low moral value adding to the graveness of prevalence. This is seen in our study where maximum (54.70%) patients were married with least (10.45%) single patients.

LIMITATIONS

This a retrospective study and the results are collected from records of ICTC, hence bias can occur due to recall error and social stigma of patients. This data is collected from a tertiary care hospital and is not a true representation of the society. Additionally ANC patients were excluded from the society.

However this study can help in contributing data and planning for policy makers to improve the HIV/AIDS prevention policy.

CONCLUSION

ICTC is a place where a person is counselled and tested for HIV, on his own free will or as advised by medical provider and convinced that the test is mandatory. He/she is assured that the process will be confidential. More number of persons of higher socio-economic class are infecting, so education regarding HIV/AIDS is necessary for them also.

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