Original Research Article

Study of socio-demographic profile of retrovirus cases attending ICTC of tertiary care Bharati Hospital, Sangli, Maharashtra

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Abstract

Aims and objectives and research question: To study what are the socio-demographic profile of retrovirus positive subjects, common sources of referral to ICTC and their HIV status of spouse or partner. **Materials and Method:** Hospital record based retrospective study for those cases that visited ICTC centre in Bharati Hospital, Wanlesswadi, Sangli, IEC permission was taken, the study included only retrovirus test positive cases, all (1103). 347 (67.24%) females, 649 (58.83%) study subjects belong to 15-49 years age group. 312 (53.15%) males and 377 (70.01%) females were married. 389 (35.26%) study subjects visited ICTC voluntarily and 494 (44.78%) were referred by private health facility and OBG and Maternity homes, Majority of the study subjects responders had Heterosexual behavior 1037 (94.01%). In 1037 heterosexual partners, both were Retro virus infected. **Conclusion:** Our present study shows high prevalence of HIV (Retrovirus) positive especially among of 15-49 years. People are using ICTC voluntarily; using ICTC facility itself reflects greater awareness about HIV infection. It will help to control spread of infection and bring about a change in the attitude towards the disease in the community.

Key Words: HIV positive, ICTC, Risk behavior, Counseling.

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Email: vijayrokz00@gmail.com
Received Date: 12/03/2017 Revised Date: 23/05/2017 Accepted Date: 30/06/2017
DOI: https://doi.org/10.26611/1021339

Access this article online

Quick Response Code:

Website: www.medpulse.in

Accessed Date: 16 September 2017

INTRODUCTION

The HIV virus infection was the cause of AIDS confirmed by Barre Sinoussi from France in 1983.The AIDS was first reported in 1981 in US. The first case was seen in Tamil Nadu in 1986 and found in intravenous drug user in India. Epidemic extreme was seen in Southern India. In India, 5.1 people are infected with HIV infection, overall prevalence of HIV/AIDS is 0.96%. The AIDS is considered as a devastating disease that the mankind has ever faced and acquired epidemic proportion mainly in 15-25 age group. It has taken too long for HIV and AIDS to be recognized as an integral problem to development and it's important that the gaps between HIV infection and AIDS work development be bridged. Prevalence and incidence of HIV/AIDS is rapidly increasing in India, unfortunately at present, even in the most urban population, knowledge, awareness and aptitude about this disease is low. HIV infection continues to be a major public health problem. Global summary of AIDS epidemic update 2013 shows approximately 35 million people are living with AIDS/HIV (Adults-31.6 million, woman 16.0 million, and children<15 years 3.2 million). 60% of the population resides in Asia; it is second to Sub-Saharan Africa in terms of number of people living with HIV/AIDS of which 0.27% accounts for the prevalence in India according to provisional estimate by NACO in 2012.[5,8,3] Routes of transmission according to NACO update in 2012-2013 is 1) Heterosexual behavior 88.2% 2) Through blood and blood products 1.0% 3) infected syringes and needles including intravenous drug users 1.7 % 4) Homosexual 1.5% 5) parents to child 5.0 %

How to cite this article: Jadhav V B, Tammanagoudar V A. Study of socio-demographic profile of retrovirus cases attending ICTC of tertiary care Bharati Hospital, Sangli, Maharashtra. *MedPulse International Journal of Medicine.* September 2017; 3(3): 93-97. https://www.medpulse.in/Medicine/

(vertical) transmission 6) not specified 2.7%. HIV prevalence among key population in the range of high risk groups and bridge population is: ANC 0.40%, migrants 0.99%, truckers 2.59%, FSW 2.6%, MSW 4.43%. IDU 7.14% total group 8.82%. Maharashtra belongs to higher prevalence state with HIV infection rate more than 8.42% among high risk groups, 0.4% or more in antenatal woman. In Maharashtra Mumbai is most vulnerable as most of the population residing in Mumbai, were migrants, FSW, MSW and intravenous drug users etc. Maharashtra is sidelined by high prevalent states like Karnataka 10% and Andhra Pradesh 20%, West Bengal 7%, Tamil Nadu 6%, Gujarat 6%, Bihar 6%, Punjab 6%, Orissa 5% these are the state wise distribution of PLHIV and rest of India 19%. HIV epidemic in India shows declining trend at national level and it is incurred that heterosexual rate transmission accounts for 88% of HIV/AIDS cases detected (2). NACO estimated HIV prevalence of 0.27% and total living with HIV a 2,100,000 in India [5.] HIV testing at ICTC centre is carried by pretest and post-test counseling which has become standardized component of prevention of HIV infection. Introduction of ICTC has decreased toll of economic pressure over states because of targeted interventions among truckers, migrants, CSW etc. and the ones involved in industries and transport.

MATERIALS AND METHOD

The present cross-sectional hospital based record study was conducted in ICTC of Bharati hospital, Sangli, Maharashtra. IEC permission was taken for study; Sangli district has population of 2,820575 comprising males and females according to 2011 census, 2.51% of total Maharashtra population. Total area of Sangli district is 8,572. Average literacy rate was 81.42% according to 2011 censes. The data was collected by going through the hospital based record. Going through the record of all 1103 HIV positive cases who visited to the ICTC department of Bharati hospital Sangli during 1st January 2009 to 31st January 2015. The detailed, anonymous and unlinked information of the HIV positive individuals like age, sex, occupation, marital status, education, address, source of referral to ICTC, risk behavior pattern, HIV status of spouse/ partner etc. was entered in the register maintained at ICTC as per national AIDS control organization (NACO) guidelines, by the counselor who counseled all visitors under strict confidentiality. All this information was recorded when the individual first time visited ICTC. After pre-test counseling and obtaining the consent from the visitors, blood samples were collected HIV status was diagnosed by using 3 different antigens (Comb Aids, Capillus / Triline and Tridot) as recommended by NACO. This collected data was sorted, tabulated and analyzed by using SPSS software version 11. Chi square test was used to test statistical differences in the study parameters. P value less than 0.05 was considered statistically significant.

RESULTS

Table no. 1 shows, the general profile of ICTC visitors revealed that all registered visitors (5694) had received pre-test and counseling all of them (99.7%) gave the consent for HIV testing. 5534 (99.2%) clients who underwent HIV test. And also received post-test counseling.1103 (19.37%) of the total tested visitors were HIV positive after three specified tests.

Table 1: General profile of ICTC visitors

Characteristics	Males	Females	Total
1.total no. of clients registered	2842	2852	5694
2.total no. of clients received pre-test counseling	2842	2852	5694
3. total no. of clients HIV tested	2842	2852	5694
4. total no. of clients received post-test counseling	2800	2735	5535
5. total no. of clients received HIV test results	2800	2735	5535
6. total no. of clients tested HIV positive	587	516	1103
7. total no. of HIV-TB co-infection detected	70	25	95

General socio-demographic profile of study subject (table no.2) shows that out of 1103 HIV positive cases, 516 (46.78%) were female and 649 (58.83%) belong to age group of 15 to 49 years (sexually active and economically productive age group), 67 (6.3%) being less than 15 years age. The data on educational status: 268 (45.65%) male, 273 (52.9%) female were illiterate.

The distribution of case

According to occupation, 519(47.05%) subject were engaged in unskilled and semi skilled work and 275(53.25%) female work housewives, student contributed to 2.9%. all the female and 587(10.3%) male were with their family members. 14.21% were married male and 21.20% were married female. More than half of 71% subjects belong to rural areas.

Table 2: General socio-demographic profile of study subject

Characteristics		Male N=587		Female N=516		Total N=1103	
		Total test	+ve (%)	Total test	+ve(%)	Total test	+ve(%)
Age Group	>15 years	288	55(9.3)	45	12(2.3)	333	67(6.07)
	15-49 years	1321	302(51.44)	1535	347(67.24)	2856	649(58.83)
	>50 year	1233	230(39.1)	1272	157(30.42)	2505	387(35.08)
Educational status	Literate	1446	268(45.6)	1677	273(52.9)	3123	541(49.0)
	Primary	872	175(29.81)	569	131(25.38)	1441	306(27.74)
	Secondary	241	98(16.6)	388	58(11.24)	629	156(14.14)
	Higher secondary	256	25(4.2)	130	25(4.8)	386	50(4.53)
	Graduate and above	27	21(3.5)	88	29(15.6)	115	50(4.53)
Occupation	Unemployed	75	28(4.7)	12	11(2.1)	87	39(3.53)
	Unskilled	1249	224(38.1)	26	12(2.3)	1275	236(21.39)
	Semi-skilled	968	135(22.9)	557	148(28.68)	1525	283(25.65)
	skilled	195	154(26.2)	126	23(4.45)	321	177(16.04)
	Professional	67	28(4.7)	45	33(6.39)	112	61(5.53)
	Student	288	18(3.06)	117	14(2.7)	405	32(2.9)
	Housewife	0	0	1969	275(53.29)	1969	275(24.93)
Marital status	Married	2195	312(53.15)	1778	377(70.01)	3973	689(62.46)
	Unmarried	359	275(46.84)	957	139(26.93)	1316	414(37.53)
Residence	Rural	1739	403(68.65)	2168	381(78.83)	3907	784(71.07)
	Urban	1103	184(31.34)	684	135(26.16)	1787	319(28.92)

Table no. 3 shows the source of referral to ICTC: 3590 (81.08%) were referred by different department from Bharati hospital, while 466 (8.90%) that visited ICTC were referred by OBGY department and 579 (196) subjects were referred from DOTs department.

Table 3: Source of referral to ICTC

Source	Male n=587 (positive)	Females n=516 (positive)	Total n=1103 (positive)
Voluntarily	468(268)	215(121)	683(389)
Govt. Health Facility	-	-	-
NGO	-	-	-
RNTCP(DOTS)	357(98)	219(98)	579(196)
Blood Bank	-	-	-
Private Health facility	1996(197)	1595(259)	3590((456)
OBG/Maternity Homes	-	564(38)	564(38)
Other	121(24)	-	121(24)

Table no. 4 shows risk behavior pattern of study subjects in only positive patients. In our study, distribution of heterosexual partners was 93% in males and 94.37% in females. Other risks are through blood transfusion: males 19 and females 12 in number, Parent to child transmission is 18 and 17 in male and female children respectively. In our study homosexual behavior pattern was not observed.

Table 4: Risk behavior pattern of study subjects (Only +ve patients)

Risk behavior	Males n=587	Females n=516	Total n=1103
Heterosexual partners	550(93.00%)	487 (94.37%)	1037
Homosexual partners	-	-	-
Blood transfusion	19	12	31
Parent to child	18	17	35
Others	-	-	-

DISCUSSION

HIV counseling and testing services were started in India in 1997. An ICTC is place where a person is counseled and tested for HIV, of his own free will or as advised by medical provider. As on 31st march 2016, in India, 74.4% percent of PLHIV are aware of their HIV status[6]. The prevalence of HIV positivity in our study is 19.37%, which is seen in similar studies from Mangalore, Karnataka where it is 22.05% [2, 8, 7]. In BIMS study 2013, it is higher (32.8%) [4] and lower in Ahmedabad study (4.8%)[2], In West Bengal study it is 17.1%[2,4,7]. In our study, Females and children below 15 years of age accounted for 46.78% and 6.07% of total referral with HIV infection in ICTC centre, respectively, with similar findings, in Andhra Pradesh study, but higher than national study average of 39.0% females and 3.5% children[3]. The major concern is high HIV infection rates in females as it will lead to a proportionate increase in children being infected by transmission from the infected

mother, 649 (58.83%) HIV infected subjects belong to the age group of 15-49 years, which is relatively lower than the national (88.6%) and the same is found in similar studies[3,4]. High prevalence in this age group can be considered as a financial burden as well as loss of youth for the nation. Similar to other studies the distribution of case according to occupation showed that 236 (21.39%) subjects were unskilled/ semiskilled workers and 689 (62.46%) females were housewives, students attributed to 2.9%. Majority of patients were referred by private health facility for their illness, while in our study 61.9% visited voluntarily for routine screening purpose which was higher than the, Bengal study 25.2% and Ahmedabad study 38.5% and less than the Mangalore study 70.2%.[2,7] This improved tendency of voluntary visit to ICTC could be attributed to the increasing awareness in the community which is created by media advertisement etc. 196 (17.76%) subjects were referred by DOTs centre while relatively higher figures were found in BIMS (North Karnataka) study, and lower figures were found in Udupi study (11.6%)[1,6], HIV-TB co-infection was found in 435(12.6%) cases of HIV-TB subjects. The risk behavior pattern in the positively responding cases showed that 93% males and 94.37% females were having heterosexual pattern which is lower than that Udupi study 98.9% males 75.0% females[1,6]. Most common mode of HIV infection is transmission found in heterosexual behavior, which has similar findings to Ahmedabad study (51.3%), Bengal study 74% and Udupi study 97.0%[1, 6]. The data of HIV status of spouse / partner revealed that in majority of couples (3.17%S) both partner were HIV positive. Integrated counseling and testing centre is an unit where strict confidentiality is maintained, test are done free of cost after pretest counseling, post test counseling and test is done after consent of the patient. ICTC centre provides counseling regarding information, education and positive prevention of HIV infection (transmission), targeted intervention among high risk groups, 100% ANC testing for HIV infection, referral of positive patients to ART centre, positive ANC patients to PPTCT and ART program, suspected TB-HIV positive patients to RNTCP program. The main function of ICTC is to provide different modes of interventions in HIV prevention and preventing HIV transmission from mother to child during child birth and referrals to PPTCT and STD treatment, use condom promotion and those individuals with opportunistic infections treatment is advised. Management of HIV-TB co-infection and referral to RNTCP and ART centre. Introduction of HAART has dramatically improved prognosis of HIV infected patients. In the industrialized world the survival of individuals with HIV infection is increased. So, HIV counseling and testing service is a key entry point to prevention of HIV infection and to treatment and care of people who are infected with HIV. When availing counseling and testing services, people can access accurate information about HIV prevention and care and undergo HIV test in a supportive and confidential environment. People who are found HIV negative are supported with information and counseling to reduce risks and remain HIV negative. People who are found to be HIV positive are provided a psycho-social link to treatment and care.

CONCLUSION

HIV/AIDS infection is due to HIV virus; our present study shows high prevalence of HIV positive especially among age group of 15 – 49 years of age. And HIV virus has no cure yet, there is an imminent need for improvement of IEC and HIV/AIDS awareness is one of the most effective strategies to control HIV/AIDS.A successful communication program helps to change behavior, in addition to increase knowledge about disease. Such ICTC services will help to provide the patients with required treatment to control the viral load and improve their health and increases survival of subjects and improve their health quality. Thus, preventing the spread of HIV infection.

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Source of Support: None Declared
Conflict of Interest: None Declared