

PERCEPTION OF HIV/AIDS AMONGST PREGNANT WOMAN

Tambe Vikas¹, Deshpande Hemant², Madkar Chandrakant³, Jethani Sumit⁴, Gosavi Kishor⁵, Musale Jayalaxmi⁶

HOW TO CITE THIS ARTICLE:

Tambe Vikas, Deshpande Hemant, Madkar Chandrakant, Jethani Sumit, Gosavi Kishor, Musale Jayalaxmi. "Perception of HIV/AIDS amongst Pregnant Woman". Journal of Evolution of Medical and Dental Sciences 2014; Vol. 3, Issue 30, July 28; Page: 8393-8398, DOI: 10.14260/jemds/2014/3058

ABSTRACT: INTRODUCTION: It is well known fact that only weapon we have got to fight against HIV is prevention. Awareness or Perception of knowledge in the population is base of the prevention. **AIM:** Our objective was to determine the level of Perception of HIV/AIDS in pregnant woman. **METHODS:** 1000 women coming to Medical College Hospital in the ANC-OPD were selected randomly for this study and were interviewed in detail according to proforma specially prepared for the purpose of analysis. **RESULTS:** Our study showed that education status of the patients is one of the most important factors in the perception along with other factors in media like television, radio, newspapers, health rallies etc. **CONCLUSION:** Health education and correct scientific knowledge are urgently needed. School and college girls should be focused more for the same to avoid wrong ideas and myths about HIV/AIDS.

KEYWORDS: HIV & AIDS/Perception/Pregnant woman/ Education.

INTRODUCTION: Acquired Immuno-Deficiency Syndrome has emerged as devastatingly fatal disease all over the world. The tremors of HIV were felt initially in the late 1980s. On 5th June 1981 the first official reporting of AIDS epidemic in Los angles (United States) was published in weekly report of morbidity and mortality (MMWR) by center for disease control and prevention (CDC).¹ Whereas in India the first known case of HIV was diagnosed by Dr. Suniti Solmon amongst female sex worker in Chennai.²

The latest statistics of the world epidemic of HIV/AIDS as published by UNAIDS/WHO in Nov. 2010 states that 33.2 million people were living with HIV, 2.7 million became newly infected and 2 million people died of HIV related causes in a year.³

According to joint United Nations Programme on HIV/AIDS (UNAIDS) there has been a 19% reduction in the number of HIV-infected people and a 20% reduction in AIDS-related deaths. However the number of women affected has risen to 50% of which 80% are in their reproductive years. Antenatal positivity has been estimated to be more than 1%. Whereas in their 2012 estimate report by UNAIDS has mentioned that no. of people living with HIV in India is 21 lakhs out of which women population is 7.5 lakhs.⁴

This shows the magnitude of the obstetric problem. The aim of UNAIDS 2009 is virtual elimination of mother to child transmission by 2015. Millennium development goal 6 aims to decrease new paediatric HIV infections and improve HIV-free child survival⁵. India accounts for about 7% of all HIV/AIDS cases in the world.⁶

HIV/AIDS infection is one of the dangerous and deadly diseases of the millennium. AIDS, the acquired immune-deficiency syndrome (sometimes called "slim disease")⁷ is a fatal illness caused by a retrovirus known as the human immune-deficiency virus (HIV) which breaks down the body's immune system, leaving the victim vulnerable to a host of life-threatening opportunistic infections,

ORIGINAL ARTICLE

neurological disorders, or unusual malignancies.⁸ Among the special features of HIV infection are that once infected, it is probable that a person will be infected for life. Strictly speaking, the term AIDS refers only to the last stage of the HIV infection. AIDS can be called our modern pandemic, affecting both industrialized and developing countries.⁷

EPIDEMIOLOGY: Globally, sub Saharan region is the most heavily infected. India has the second highest population of HIV-infected people. Maharashtra, Tamil Nadu, Karnataka, Andhra Pradesh, Manipur and Nagaland have prevalence rates of more than 1% among the general population and more than 5% among the high risk group.

HIV is a retrovirus containing reverse transcriptase. This enzyme allows the virus to transcribe its RNA genome into DNA, which then integrates into host cell DNA. The RNA virus exists in two forms: HIV-1 and HIV-2. HIV-1 is more common. HIV preferentially targets lymphocytes expressing CD4 molecules (CD4 lymphocytes), causing progressive immunosuppression. Therefore, the main problem in clinical illness with AIDS is profound immunosuppression, rendering the patient susceptible to opportunistic infections and neoplasia leading to death. The modes of transmission are sexual route 86%, mother to child 3.6%, injecting drugs 2.4%, transfusion of blood and blood products 2% and others 6%.⁵

The diagnosis is done by ELISA screening test of HIV and conformed by Western blot or immunofluorescence assay and PCR detects viral DNA and RNA. CD4 count decline indicated the degree of immunosuppression. Viral load (HIV-RNA) predicts disease progression.

The worst part about HIV is vertical transmission where mother to child transmission of HIV occurs. It varies between 15-20% in non-breastfeeding women in Europe and between 25-40% in the breastfeeding African populations. In India, the risk of vertical transmission is about 30%. Two thirds of vertical transmission occurs at delivery.

If breast feeding is not practiced. Timing of vertical transmission is (a) Antepartum 0-14 weeks 1%, 14-36 weeks 4%, 36 weeks up to labour 12% (b) Intrapartum 8% (c) Postpartum (with breast feeding) established infection 14% & primary infection 29%. The programme for prevention of vertical transmission is called PPTCT or Prevention of Parent to Child transmission and was commenced in the year 2002.

We have selected this topic to assess the awareness about HIV among antenatal woman, to evaluate the effectiveness of existing resources for information regarding HIV, to investigate antenatal women's social feeling about HIV in population.

In spite of so many drug trials, research and vaccine trails and other measures this disease is still incurable. Only ART treatment is available for controlling viral load. As prevention is always better than cure one can only take preventive measures if people are aware about HIV. So we have selected this topic.

The pregnant women were chosen for the study because:

- a) Most susceptible age group
- b) Easy target population to know the prevalence of disease in community.
- c) The mother to child transmission is the major mode of transmission and source of growing HIV incidence in pediatric age group.

ORIGINAL ARTICLE

MATERIALS AND METHODS: The present study was conducted at Private Medical College and Teaching Hospital from Jan. 12 to Dec. 2012. Antenatal mothers who were coming in ANC OPD were included in this study.

The mothers were from all communities and socio-economic strata. The socio-economic scaling was done according to modified Kupuswami Scale which included income, education and occupation of both. The permission of ethical committee was taken.

Though the legal age of marriage is 18 years, the girls were found to be married – before 18 years and have immediate conception. So we have included the cut off age as 15 years.

We conducted interviews with randomly selected women during their first antenatal visit. The nature of the study was explained to all women and written informed consent was obtained. The topic covered in these interviews included demographic and clinical characteristics, access to media related to HIV and general knowledge of HIV with a focus on maternal to infant transmission. The interview was conducted before start of routine ANC check up and each mother was interviewed privately and assured on the confidentiality of the interview.

To have systemic record special proforma was planned on which all the information obtained by each patient was written in details. This proforma included several additive scores based on women's corrected responses. While analyzing data we have specially tried to know whether there is any difference in different aspects of awareness between educated and uneducated states of the patients.

RESULT: In present study out of 1000 antenatal mothers, 660 (66%) were aware of HIV/AIDS. Among these 140 (43.75%) were illiterate, 200 (71.40%) were having primary education, 135 (71%) were having middle school education 145 (90.60%) were having high school education and 40 (80%) were having intermediate and above education. These 660 were carried forward for the further questioning. Socio-economic status was lower in 62%, upper in 4% and remaining were meddle class (34%). Awareness against socio-economic status was follows:

Perception against education status show that 21.21% (140/660) patients were illiterate as compared to other group which was educated and 79.79% were aware about HIV/AIDS.

About information source 58.33% (385/660) had known by television and 16.96% (112/660) had knowledge by radio. So, majority (75%) had knowledge by two sources and only 25% were had knowledge by friends, paper and other sources.

Education	Communicable disease	STDs	AIR Borne	Not Known	Total
Illiterate	60 (42.8%)	32 (22.8%)	10 (7.1%)	38 (27.1%)	140
Primary	45 (22.5%)	125 (62.5%)	14 (7%)	16 (8%)	200
Middle school	20 (14.8%)	90 (66.6%)	12 (8.8%)	13 (9.6%)	135
High school	45 (10.3%)	102 (70.3%)	15(10.3%)	13 (8.9%)	145
Intermediate and above	2 (5%)	38 (95%)	0	0	40
Total	142 (22.51%)	387 (58.63%)	51 (7.72%)	80 (12.12%)	660

Table 1: PERCEPTION REGARDING MODE OF TRANSMISSION

ORIGINAL ARTICLE

About mode of transmission 22.51% (142/660) thought is a communicable disease, 58.63% (387/660) thought it is a STD, 7.72% (51/660) thought it is an air borne and 12.12% (81/660) cases were not knowing about mode transmission.

About prevention knowledge condom as a method of prevention was known to 497 (75%) women and safe sterile injection was known to 191 (29%) women.

About testing for HIV only 34.69% (229/660) were tested for HIV testing and remaining 65.30% (431/660) were not tested for HIV even though they were aware about AIDS. Here also no. of uneducated women who has undergone testing is significantly less 6.7% (44/660) as oppose to 28% (185/660) who were educated.

About treatment 38.18% (252/660) were knowing about availability of treatment and 61.81% (408/660) were not knowing. In this group 9.52% (24/252) were uneducated as compared to educated group 91.48% (228/252).

About need for HIV testing 47.5% (314/660) were thinking it to be necessary. In this also 12.10% (38/314) were uneducated as compared to educated group 87.90% (276/314) which again shows significant difference.

Education	Yes	No	Total
Illiterate	42 (30%)	98 (70%)	140
Primary	134 (67%)	66 (33%)	200
Middle school	102 (75.5%)	33 (24.4%)	135
High school	108 (74.4%)	37 (25.5%)	145
Intermediate & above	35 (87.5%)	5 (12.5%)	40
Total	421 (63.78%)	239 (36.21%)	660

Table 2: PERCEPTION ABOUT MOTHER TO CHILD TRANSMISSION

About mother to child transmission (MTCT) 63.78% (421/660) were aware about transmission of HIV. In this also the illiterate group no. is 9.97% (42/421) as oppose to 90.03% (379/421) who were educated which also shows significantly difference.

About timing of transmission 45.9% (303/660) were thinking antenatal period, 39.8% (263/660) in labour and 14.24% (94/660) at postnatal period.

Regarding PPTCT programme 70.75% (467/660) were aware.

About transmission through breast feeding 48.18% (318/660) were aware that it can be transmitted through breast feeding.

Education	Yes	No	Total
Illiterate	28 (20%)	122 (80%)	140
Primary	60 (30%)	140 (70%)	200
Middle school	41 (30.3%)	84 (69.6%)	135
High school	102 (70.3%)	43 (29.6%)	145
Intermediate & above	12 (30%)	28 (70%)	40
Total	243 (36.80%)	417 (36.18%)	660

Table 3: OPINION REGARDING BREAST FEEDING IN HIV POSITIVE

ORIGINAL ARTICLE

Regarding breast feeding 36.80% (243/660) were of the opinion that breast feeding should be given to their babies even if a woman is HIV positive.

DISCUSSION: The study reveals that the awareness of HIV/AIDS among the antenatal client is high. In our series 75% patient were Hindus and 81% patient were house wives which is similar to study by Dr. Shrotiri et al.⁹ In our series education in our series 32% were illiterate which is similar to series of Dr. Shrotri et al. which is 33%.⁹

Socio economic states study show different figure than Bhalge et al.¹⁰ which may be due to the different study set up and different geographical area of study group. In our study television and radio were the main sources of information (75%) about HIV/AIDS which similar to Dr. Shrotri et. al. but more than Murajan et al¹¹ and less than Bhagale et al. In our series about transmission STD is found to be 58.63% which is similar to Bhagale et al 58.66% and lower than Shrotri et al 75%.

In our series out of 660 patients who aware HIV about 75% had knowledge about condom as means of protection and 29% had knowledge about safe blood transmission. The main factor which we noticed was the education status which really makes vast difference in the perception. Which is obviously seen in response to questionery regarding need for testing of HIV, treatment of HIV, actually testing for HIV and mother to child transmission knowledge.

This is also similar to the series of Bassey et al¹² who has found statistically significant relationship between the level of education and knowledge of HIV/AIDS and could partly be explained by the fact that highly educated people usually have more access to information of all types including that on HIV/AIDS. Education gives knowledge and confidence, removes misconception and myths and guides about further management.

CONCLUSION: As all of us know that HIV has caused greatest health crisis that has swept the whole world. Most important is the fact that prevention of infection is more important for which awareness of various aspect of the disease deserves the ultimate importance from the strategic pint of view.

REFERENCES:

1. Center for Disease Control (CDC) Morbidity Mortality Weekly Report (MMWR) published by Associated Press Los angles Times (USA) on 5th June 1981.
2. Steve Sternberg. HIV Scar India, USA Today on 23rd Feb. 2005.
3. Report on the Global AIDS Epidemic.2010. Available from <http://www.unaids.org>.
4. Joint United Nations Programme on HIV/AIDS (UNAIDS) 2010 & 2012 Progress Report on the Global Plan estimate.
5. Shaila Balakrishnan. HIV Infection in Pregnancy. Textbook of Obstetrics, Paras Medical Publication 2nd edi; 2013: 302-303.
6. Joint United Nations Programme on HIV/AIDS (UNAIDS). Report on the global AIDS epidemic 2008. Available from http://www.unaids.org/en/KnowledgeCentre/HIVData/GlobalReport/2008/2008_Global_report.asp [accessed on 2010 Mar 16].
7. Park K. AIDS. Textbook of Preventive and Social Medicine. M/s Banarsidas Bhanot publishers 21st edi.; 2011:317.

ORIGINAL ARTICLE

8. WHO Technical Report Series. United Nations World Health Organization Interim Commission Expert Committee On Venereal Diseases. Br J Vener Dis. Jun 1949; 25(2): 45-55 .
9. Shrotri A, Shankar AV, Sutar S, Joshi A, Suryawanshi N, Pisal H et. al. Awareness of HIV/AIDS and household environment of pregnant women in Pune, India International journal of STD and AIDS, 2003, 14; 835-839.
10. Udaykiran U. Bhalge, Gautam M Khakse, Kishor P Brahmapurkar, Ravindra Thorat, Vaishali K. Awareness Regarding HIV / AIDS in ANC Client in Tribal District of Central India. IOSR Journal of Dental and Medical Sciences (JDMS), 2012; Volume 2, Issue 4 ;44-49.
11. Murajan S, Saberrimuthis, Pongiya V, Desigan CG. Awareness about HIV/AIDS among adolescent boys in tribal villages of nilgiri district south India. Humanity and social sci. J, 2010; 5(1): 63-67.
12. Bassey E. A., Abasiubang F, Ekanem U, Abasiatai. Awareness and knowledge of HIV/AIDS at booking among antenatal clinic attendees in UYO, Nigeri Int. J. med. med. sci.,2009, 1(8),334-338.

AUTHORS:

1. Tambe Vikas
2. Deshpande Hemant
3. Madkar Chandrakant
4. Jethani Sumit
5. Gosavi Kishor
6. Musale Jayalaxmi.

PARTICULARS OF CONTRIBUTORS:

1. Assistant Professor, Department of Obstetrics and Gynaecology, D.Y. Patil Medical College, Pune.
2. Professor and HOD, Department of Obstetrics and Gynaecology, D.Y. Patil Medical College, Pune.
3. Professor, Department of Obstetrics and Gynaecology, D.Y. Patil Medical College, Pune.
4. Assistant Professor, Department of Community Medicine, D.Y. Patil Medical College, Pune.

5. Assistant Professor, Department of Obstetrics and Gynaecology, D.Y. Patil Medical College, Pune.
6. Resident, Department of Obstetrics and Gynaecology, D.Y. Patil Medical College, Pune.

NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Hemant Deshpande,
Professor and HOD,
Department of Obstetrics and Gynaecology,
D.Y. Patil Medical College,
Pune.
Email: drhemantdeshpande@gmail.com

Date of Submission: 10/07/2014.

Date of Peer Review: 11/07/2014.

Date of Acceptance: 18/07/2014.

Date of Publishing: 23/07/2014.