

ORIGINAL ARTICLE

Prevalence of HIV among Rural Pregnant Women Attending PPTCT Services at KLE Hospital, Belgaum

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Abstract: *Research question:* What is the prevalence of HIV infection among rural pregnant women? *Objectives:* To know the prevalence of HIV infection and anaemia among pregnant women. *Study design:* Cross-sectional. *Setting:* Primary Health Centres namely Kinaye, Vantamuri and Handiganur. *Participants:* 716 pregnant women residing in three Primary Health Centres and availing PPTCT services at KLE's Dr. Prabhakar Kore Hospital & MRC, Belgaum. *Results:* The study revealed that, the prevalence rate of HIV infection in antenatal mothers was 0.70%. Out of 716 pregnant women studied, 508 (70.95%) were anaemic and 208 (29.05%) were not anaemic. Among 508 anaemic pregnant women, 211 (41.54%) had mild anaemia, 211 (41.54%) had moderate anaemia and 86 (16.92%) had severe anaemia. About 17.73% of the pregnant women belonged to high-risk group. *Conclusion:* The economic and demographic consequences of the spread of HIV/AIDS are inexorable and awesome. Development of programmes with an integrated approach to inducing behavioral change, promoting use of condoms and controlling STD's may reduce the infectivity of HIV transmitters and the susceptibility of HIV exposed persons. In this era of AIDS, there is a need to express care and compassion rather than fear, hostility or alienation.

Key words: HIV, PPTCT, Anaemia, Pregnant women.

Introduction

UNAIDS states that mother to child transmission is the largest source of HIV infection in children below the age of 15 years. According to NACO, it is estimated that about 30,000 infants acquire HIV infection each year. The joint technical mission on PPTCT (2006) estimated that out of 27 million annual pregnancies in India, 189,000 occur in HIV positive pregnant women. In the absence of any intervention, an estimated cohort of 56,700 infected babies will be born annually. PPTCT programme which aims at reducing the perinatal transmission of HIV, was started in India in the year 2002 following feasibility study in 11 major hospitals in the high prevalence states. The first PPTCT program in India was established at a taluk hospital in Tamil Nadu with the objective of offering anti-retroviral prophylaxis to all HIV pregnant women and their infants. Currently there are more than 4000 ICTCs of which 502 are located in Obstetrics and Gynaecology departments and in maternity homes. The PPTCT services cover about 10% pregnancies in the country. In the year 2006, 2.1 million pregnant women accessed this service. Many pregnant women in the rural area are unable to avail PPTCT services due to illiteracy, ignorance, lack of transport facilities and poverty. Hence to facilitate pregnant women from rural area to avail these services, special service has been started since February 2006 in which pregnant women from the PHC area are brought to KLE's PPTCT centre for HIV counseling and testing.

Materials and Methods

Under Public Private Partnership, three Primary Health Centres have been adopted by the Department of Community Medicine namely Kinaye, Vantmuri and Handiganur covering a population of about 56155, 36334 & 25200 respectively. Kinaye Primary Health Centre has 9 sub-centres, Vantmuri 5 sub-centres and Handiganur 4 sub-centres. Pregnant women from all the three Primary Health Centres were brought to the PPTCT centre in KLE's Dr. Prabhakar Kore Hospital for HIV counseling and testing. The time schedule followed for the visits was every Saturday for Kinaye, every 1st and 3rd Friday for Vantmuri and 1st and 3rd Thursday for Handiganur Primary Health Centre. Health worker female would have identified the pregnant women in her subcentre and informed them about the visit well in advance. On that day they were brought to KLE's Dr. Prabhakar Kore Hospital, in the PHC ambulance accompanied by interns or post-graduates. At the PPTCT centre the women were counseled for HIV testing. After obtaining informed consent from the mother, blood was drawn for the following investigations: 1. HIV screening test 2. Blood grouping and Rh typing 3. Hemoglobin estimation. The antenatal check-up was carried by OBG department. Pre-designed and pre-tested questionnaire was used to collect data from all pregnant women attending PPTCT centre from February 2006 to March 2007. A total of 716 women who attended PPTCT services in this duration were included in the analysis. Data was collected regarding socio-demographic characteristics, obstetric history and analyzed.

Results

In the present study, out of 716 pregnant women who availed PPTCT services, 360 (50.28%) were in the age group of 21 – 25 years, 209 (29.19%) in the age group of 15 – 20 years, 133 (18.58%) in the age group of 26 - 30 years and 14 (1.95%) in the age group of 31 – 35 years. Out of 716 pregnant women studied, majority 265 (37.01%) were 2nd gravida, 259 (36.17%) were primigravida, 139 (19.41%) were 3rd gravida and 53 (7.41%) were ≥ 4th gravida. Out of the total pregnant women studied, 664 (92.74%) were Hindus, 40 (5.59%) were Muslims, 5 (0.70%) were Christians and 7 (0.97%) were SC/STs.

Our study showed that, 623 (87.01%) were housewives, 82 (11.45%) were agricultural labourers, 7 (0.98%) were involved in private service and 4 (0.56%) were in government service. According to our study, 305 (42.60%) of pregnant women husband's were involved in private service, 253 (35.34%) were agricultural labourers, 78 (10.89%) were coolies, 67 (9.36%) were in government service, 7 (0.97%) were involved in other work and 6 (1.48%) were unemployed. Our study revealed that female literacy rate of three PHCs was 64.66%. Among them majority of the pregnant women, 251 (35.06%) were educated upto matriculate, 168 (23.46%) upto high school, 39 (5.45%) upto primary school, 5 (0.69%) were graduates and remaining 253 (35.34%) were illiterates. As regards to husband's literacy status, it was observed that 273 (38.13%) of them had studied upto matriculate, 162 (22.63%) upto high school, 32 (4.47%) were graduates, 32 (4.47%) had primary education and 217 (30.30%) were illiterates.

HIV test result	Number	Percentage
Negative	711	99.30
Positive	5	0.70
Total	716	100

infection in antenatal mothers was 0.70% (Table1). Out of 716 pregnant women studied, 508 (70.95%) were anaemic and 208 (29.05%) were not anaemic. Among 508 anaemic pregnant women, 86 (16.92%) were severely anaemic (Table 2). About 17.73% of the women belonged to high risk pregnancy category.

In the study, 456 (63.69%) of the pregnant women who attended counseling were in the 2nd trimester, 177 (24.72%) were in the 3rd trimester and 83 (11.59%) were in the 1st trimester. The prevalence rate of HIV

Severity of anaemia	Number	Percentage
Mild (< 11 to \geq 10 g %)	211	41.54
Moderate (< 10 to > 8 g %)	211	41.54
Severe (\leq 8 g %)	86	16.92
Total	508	100

Discussion

This cross-sectional study revealed that more than 79% of the pregnant women were between the age group of 15 – 25 years. Majority of them (64.66%) were literates and 87.01% of them were housewives. 63.69% of women were counseled in the 2nd trimester, 24.72% in the 3rd trimester and only 11.59% in the 1st trimester. In our study all the 716 pregnant women who underwent HIV counseling, agreed to undergo HIV testing. Out of that four tested positive, giving prevalence of 0.70%, which is less than that in Karnataka state. In a study done in North India prevalence of HIV was found to be 0.88 % which is similar to our study [1]. A study conducted at Government Hospital, Namakkal district showed that all 7866 women from rural area accepted HIV testing after counseling. Seroprevalence was found to be 0.77 % which is same as that of our study [2]. In a study done at Sewagram, Maharashtra, 98 % pregnant women accepted HIV testing and 1.23% were found HIV positive [3]. Prevalence of anaemia in our study was 70.95%, of which 41.54% were mildly anaemic, 41.54% were moderately anaemic and 16.92% were severely anaemic. In a study conducted in an area of Delhi, it was observed that 95.5% were anaemic, out of which 22.8% were mildly anaemic, 50.9% were moderately anaemic and 22.8% were severely anaemic [4]. In another study conducted at Parta Province showed that prevalence of anaemia was 42.7%, severe anaemia being only 1.88% and mild to moderate anaemia 40.82% [5].

Conclusion

PPTCT services for the pregnant women of the three PHC's are provided by KLES hospital, District hospital and private nursing homes. During the study period, a total of 2079 pregnancies occurred in three PHC's, out of which 716 (34. 44%) of them availed PPTCT services from KLES hospital. The need of the hour is to provide universal access to these services by involving the NGO's and the private sector. Utilization of the PPTCT services can be improved by creating awareness among the pregnant women regarding the need and benefits of getting tested. To tackle the high

prevalence rate of anaemia in pregnant women we need to develop strategies so as improve the overall health of the women rather than propagating supplementation of iron and folic acid tablets alone.

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