Research Paper

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A Epidemiological Study of HIV Positive Antenatal Women- at PPTC Centre of a Tertiary care Hospital

Medical Science

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ABSTRACT

Background: Care during antenatal, intra natal and post natal period in the form of ART and other medical intervention can reduce the transmission of HIV/AIDS from pregnant mother to her progeny. This prospective study was carried out with objective of studying various factors associated with HIV positive antenatal women.Material and Methods: This is a prospective study carried out for a duration of 15 months at a tertiary care hospital participants of study were HIV positive mothers, their biosocial, clinical and risk profile were studied. Participants were followed from enrollment till one month after delivery.Results: During the period of study 30 HIV positive mothers were enrolled in study, 2 died within one month of delivery and 2 women were lost to follow up. Of 30 study participants 18 were multigravida and of these 7 had HIV positive children. Husband of 28 women were also HIV positive. Conclusion: All women were given proper treatment as per guidelines.

Introduction: Among many en route to stop the spread of HIV/AIDS one is to prevent the spread from mother to child. The transmission of HIV from an HIV-positive mother to her child during pregnancy, labour, delivery or breastfeeding is called mother-to-child transmission. In the absence of any interventions transmission rates range from 15-45%. This rate can be reduced to levels below 5% with effective interventions (World Health Organisation [WHO], 2013). For this National AIDS Control Organisation has introduced a strategy to prevent the spread from mother to child which is popularly known as PPTCT i.e., Prevention of Parent to Child Transmission of Disease. The NACO Technical Estimate Report (2012) estimated that out of 27 million annual pregnancies in India, 34,675 occur in HIV positive pregnant women. In the absence of any intervention, an estimated cohort of 13,000 infected babies will be born annually(National AIDS Control Organisation[NACO], 2012). The PPTCT programme aims to prevent the perinatal transmission of HIV from an HIV infected pregnant mother to her newborn baby. The programme entails counseling and testing of pregnant women in the ICTCs. The PPTCT services cover about 37 per cent annual estimated pregnancies in the country. In the year 2013-14, nearly 10 million pregnant women accessed this service. Of these, 12008 pregnant women were HIV positive(NACO, 2014). But one of the challenge is to spread the information about this programme to the periphery areas of the states and implement it effectively. Simply making the strategy is not enough but it must be ensured that all the HIV positive women who get pregnant receives proper care and treatment to ensure the good health of both mother and the child. We carried out this study with objective to study the biosocial, risk factor and clinical features of a HIV positive pregnant women.

Materials and Methods : This was a hospital based prospective study done at a tertiary care centre Netaji Subhash Chandra Bose Medical College, Jabalpur. The duration of study was 15 months. Study participants were HIV positive pregnant women of all groups. Purposive sampling was used to select study participants. Inclusion criteria: HIV positive women visiting the OPD of department of Obstetrics and Gynecology for antenatal care who gave written consent. Exclusion criteria: Those who did not give consent for the study. Women were asked to attend a counseling session to explain the benefit of the PPTCT programme and about the objective of the present study. Counseling was done in person at PPTCT center by the HIV/AIDS counselor regarding the importance of HIV treatment and its benefit for both mothers and children. There were two type of participants one group who were already HIV positive and were referred to our institute for proper medical care from ART centre of Jabalpur district and second group who were newly diagnosed as HIV positive by regular screening programme at our institute. All Study participants from the time of enrollment in study were examined at least once and were followed up to 1 months after delivery. Data about Socio-demographic variables, past medical history, risk profile, clinical features and views about the future course of treatment were gathered by a predesigned and pretested questionnaires. The study was approved by the ethics committee of the our institution. Confidentiality of study participants and data thus generated was maintained at all the time. Data were entered in Microsoft Excel 2010 and percentage and proportion were calculated.

Result: During the period of study a total of 30 HIV positive women attended the OPD clinics of our study centre. Of this 22 were referred from the ART centre Jabalpur to PPTCT centre of our institute and rest 8 women were newly diagnosed as HIV positive by the screening programme at the PPTCT centre. Of the total 30 women 2 women were lost to follow up and 2 women died during the period of study.

Table 1: Biosocial Characteristics of Study Participants (n=30)

Age of Participants	Number of participants	%
< 20 years	1	3.3
20-24 years	14	46.7
25-29 years	11	36.7
>30 years	4	13.3
Locality		
Urban	6	20.0
Rural	24	80.0
Literacy Status		
Illiterate	6	20.0
Literate	24	80.0
Religion		
Hindu	27	90.0
Muslim	2	6.7
Others	1	3.3
Socioeconomic status (Modified Prasad classification)		
Upper Middle	7	23.3

Age of Participants	Number of participants	%
Lower-Middle	3	10.0
Lower	20	66.7

Table 1 details the various biosocial factors of the study participants. As can be seen from table 1 most of the women enrolled in the study were in the age group 20-24 years (46.7 %) followed by women in the age group 25 -29 years (36.7%) of age. Most common religion of study participants was Hindu (90.0 %). 80.0% of the study participants were from rural locality. With respect to literacy status of study participants a 20.0% were illiterate and 80.0% were literate. A maximum 66.7% of study participants belonged to the lower socio-economic class as per modified Prasad classification.

Table 2: Risk factor profile of study Participants (n=30)

Risk Profile	n	%
HIV Status of Husband		
Positive	28	93.3
Negative	2	6.7
Unknown	0	0.0
Parity of Study Participants		
Primigravida	12	40.0
Multi gravidas	18	60.0
HIV status of previous children (n= 18)		
Positive	7	38.8
Negative	6	33.3
Not Tested	5	27.8
High risk status#		
Multiple sex partners	3	10.0
History of blood transfusion	5	16.7
History of STD	2	6.7

 # Multiple response

Table 2 describes the risk factor and family profile of study participants. Spouse of 93.3% study participants were also HIV positive. 12 (40.0%) study participants were primigravida and rest 18 (60.0%) participants were multigravida. Of the total 18 multigravida women 7 (38.8 %) study participants had HIV positive children and 6 (33.3%) study participants had HIV negative children while the HIV status of children was not known of 5 (27.8%) of the study participants. With respect to the high risk behavior about 10.0% of study participants admitted to having multiple sex partner while 16.7 % women had history of blood transfusion while 6.7 % had reported a history of STD.

Table 3: Bio-Clinical profile of study Participants during first checkup (n=30)

Clinical Parameter	n	%
Status of Pregnancy		
Continued	25	83.3%
Terminated	3	10.0
Lost to follow up	2	6.7%
Hb %		
>10%	3	10.0
<10%- 7%	19	63.3
< 7%	8	26.7
Opportunist Infection		
Present	10	33.3
Absent	20	66.7

Clinical Parameter	n	%
CD_4 Count		
< 200	6	20.0
>200- 350	11	36.7
> 350	13	43.3

Table 3 describes the clinical features of the study participants in detail. As shown in the table 3 most (43.3 %) of the study participants had CD_4 count above 350, while CD_4 was < 200 in 6 (20.0%) study participants. When informed about HIV status and the available options 25 (83.3%) study participants decided to continue the pregnancy while 3 (10.0%) study participants decided to terminate the pregnancy and 2 study participants were lost to follow up. Most of the study participants were anemic, and haemoglobin level was between 7- 10 % for most 63.3% of the study participants and only 3 participants had haemoglobin > 10 %, while 8 (26.7%) study participants were severely anemic(Hb <7.0 %). 10 (33.3%) study participants had HIV related opportunistic infection at the time of presentation while rest 20 (66.7%) study participants did not had any opportunistic infection.

Discussion: The main objective of the HIV screening programme for the pregnant women and PPTCT programme is to reduce spread of HIV from mother to her progeny. In present study we studied 30 pregnant women who were HIV positive. Their biosocial, risk profile and clinical profile was studied. Of the 30 women who were enrolled in study 2 were lost to follow up , 2 women died within 1 month of delivery and 3 women decided to terminate the pregnancy. Of the 18 multigravida women 7 had HIV positive children which shows the lack of proper care during the previous pregnancy. Most of the women enrolled in our the study were in the age group 20-24 years (46.7 %) followed by women in the age group 25 -29 years(36.7%) of age. Similar observation was made by Gupta et al in their study carried out at a tertiary care centre(Gupta, Gupta and Singh, 2007). In present study 10.0% of women admitted of having multiple study partner approx. same proportion (8.3%) was reported by Dahiya K et al in their study (Dahiya, Grover, Sangwan and Nanda 2011). In present study 60.0% participants were multigravida which was 10 percentage point lower than as reported by Dahiya K et al in their study (Dahiya et al 2011). 28 study participant's husband were also HIV positive out of total 30 while in the study conducted by Dahiya et al reported that out of total 67 HIV positive women husband of 47 were HIV positive. Dahiya et al reported that 14.92 % of HIV positive women were illiterate while in our study 20.0% of HIV positive mothers were illiterate (Dahiya et al 2011).

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