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Utilization and Uptake of Health Care Facilities by HIV Positive Antenatal Women Registered at PPTCT Centres of Surat City

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ABSTRACT

Background: HIV transmission from mother to child continues to be the major source of HIV infection in young children. This study assessed utilization and uptake of PPTCT services among HIV positive antenatal women registered at PPTCT centres of the Surat city.

Materials and Methods: This Retro-prospective Cohort study enrolled a sample of 282 HIV positive antenatal women registered for HIV testing and counseling during January 2007 to Dec 2008 in 5 PPTCT centres of Surat city and conducted from Dec 2008 to Nov 2010. Of these 127 (45%) antenatal women who came to collect their reports were included in the study and given post test counseling.

Result: There was 55% loss to follow up among the HIV positive antenatal women and out of 127 (45%) women, 98(77%) had been registered in ART centres, from which only 45% started ART, 9% opted for abortion,105 (91%) were institutional delivery, among them only 38% underwent caesarean section,.101 (91%) mother-baby pairs received nevirapine prophylaxis at the time of labour and out of these, only 84 exposed babies were tested at 18 months of age and 5 (5.95%) were found to be positive among them.

Conclusion: Utilization and uptake of PPTCT services among the HIV positive antenatal women has remained low even after availabilities of 5 PPTCT centres in the study area. Just like mothers, drop out in service utilization was observed among exposed children also.

Key words: HIV positive, Antenatal Women, Utilization, PPTCT services

INTRODUCTION

India has the third largest HIV epidemic in the world with 2.1 million Indians accounting for about four out of 10 people infected with the deadly virus. The lack of awareness and misconceptions about HIV/AIDS is responsible for rapid spread in our country. According to estimates by WHO and UNAIDS, 36.7 million people were living with HIV globally at the end of 2015. That same year, some 2.1 million people became newly infected, and 1.1 million died of HIV infection and related causes.[1]

Major route of transmission is through sexual contact (85.6%).Nearly, 5% of infections are occurred due to mother to child transmission (PTCT).The epidemic disproportionately affects women, who account for 39% of the total infections in the country. Women stand at a higher risk of HIV infection and are a source of transmission to their children, thus forming the focus of most AIDS control programs aimed to meet the goal of achieving virtual elimination of pediatric HIV. Integrated Testing &

Counselling Centre (ICTC) has been identified as an effective tool in reducing HIV transmission. [2]

Parent to child transmission (PPTCT) is an important route for HIV infection in children responsible for over 90% of new infections in infants and young children globally.[3] About 30,000 infants are estimated to acquire HIV infection each year (NACO) and median positivity rate of HIV infection among ANCs is 0.46 percent in Gujarat (HSS, 2007). With effective PPTCT interventions like intrapartum Single dose Nevirapine prophylaxis (Sd NVP) to mother and baby, viral load based antiretroviral therapy (ART) to ANCs, safe mode of delivery and safer infant feeding practices, transmission can be drastically reduced from 30 percent to 3 percent.[4] Surat continues to be an epicenter of the HIV virus in the state owing to high industrial development, labor migration from U.P., Bihar, Maharashtra and Southern states and existence of surrounding tribal areas

With effect from 1st January 2014, pregnant women who are found to be HIV positive are initiated on lifelong ART irrespective of CD4 count and WHO clinical Staging; their newborn (HIV exposed) babies are initiated on 6 weeks of Syrup Nevirapine immediately after birth so as to prevent transmission of HIV from mother to child and is extended to 12 weeks of Syrup Nevirapine if the duration of the ART of mother is less than 24 weeks.[5]

There is ample global evidence, that significant reduction in new paediatric infections can be achieved as a result of high coverage with effective interventions for PPTCT (WHO, 2010). In the year 2015-16, 12.7 million pregnant women accessed the PPTCT service. Of these, 11,918 pregnant women were HIV positive [5]

OBJECTIVE

This study is taken up to assess the utilization and uptake of PPTCT services attended by HIV positive antenatal women registered at 5 PPTCT centres of the Surat city which will provide valuable information for policy maker in PPTCT scaling up programme to prevent vertical transmission.

MATERIAL & METHODS

This combined Retrospective & Prospective Cohort Study enrolled a sample of 282 HIV positive antenatal women registered during January 2007 to Dec 2008 in 5 PPTCT centres of Surat city.Information regarding deliveries of HIV Positive Antenatal mothers & HIV status of Children whose HIV testing has done were included in Retrospective Component and Follow up of HIV positive Antenatal mothers whose delivery has not occurred & Children who were not tested for HIV were included in Prospective Component. These Participants who were in contact for a period of 18 months were interviewed with quantitative questionnaires. The study protocol was approved by the Institutional Ethics Committee (IEC), Smimer, Surat, prior to implementation of the study and Ethical clearance from GSACS was obtained. Before collecting information, written consent was obtained from all participating HIV positive antenatal women and they were assured about the confidentiality of information. Data was collected according to Pretested & Predesigned Proforma by Records of the PPTCT and ART centres with the help of counselors of the centres. Follow up was done for assessing the outcome by data from PPTCT and ART centres or by periodic house-to-house visits with the help of Out Reach Workers (ORW) for those women who could not be contacted during the first visit. The Proforma consisted of questions regarding HIV status of family members, Antenatal history, ART centre registration detail of Antenatal mothers, Details of Delivery or Abortion, Post natal information, HIV status of born Child etc.

For babies >18 months, antibody tests and ELISA was done as per adults and for babies <18 months, DNA PCR was done to check the HIV status in the children.

RESULTS

As shown in figure 1 total 282 PLHIV women were registered in the PPTCT centre. Out of these, 127 (45%) women were followed up till the end of the study. Cohort of follow up of registered HIV positive antenatal women and their children (*exposed children means children born to HIV positive antenatal women) is shown in figure 2.

Figure:1: Registered ANC women and lost to follow up cases

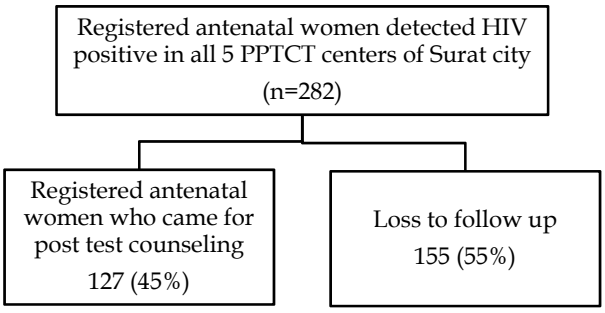
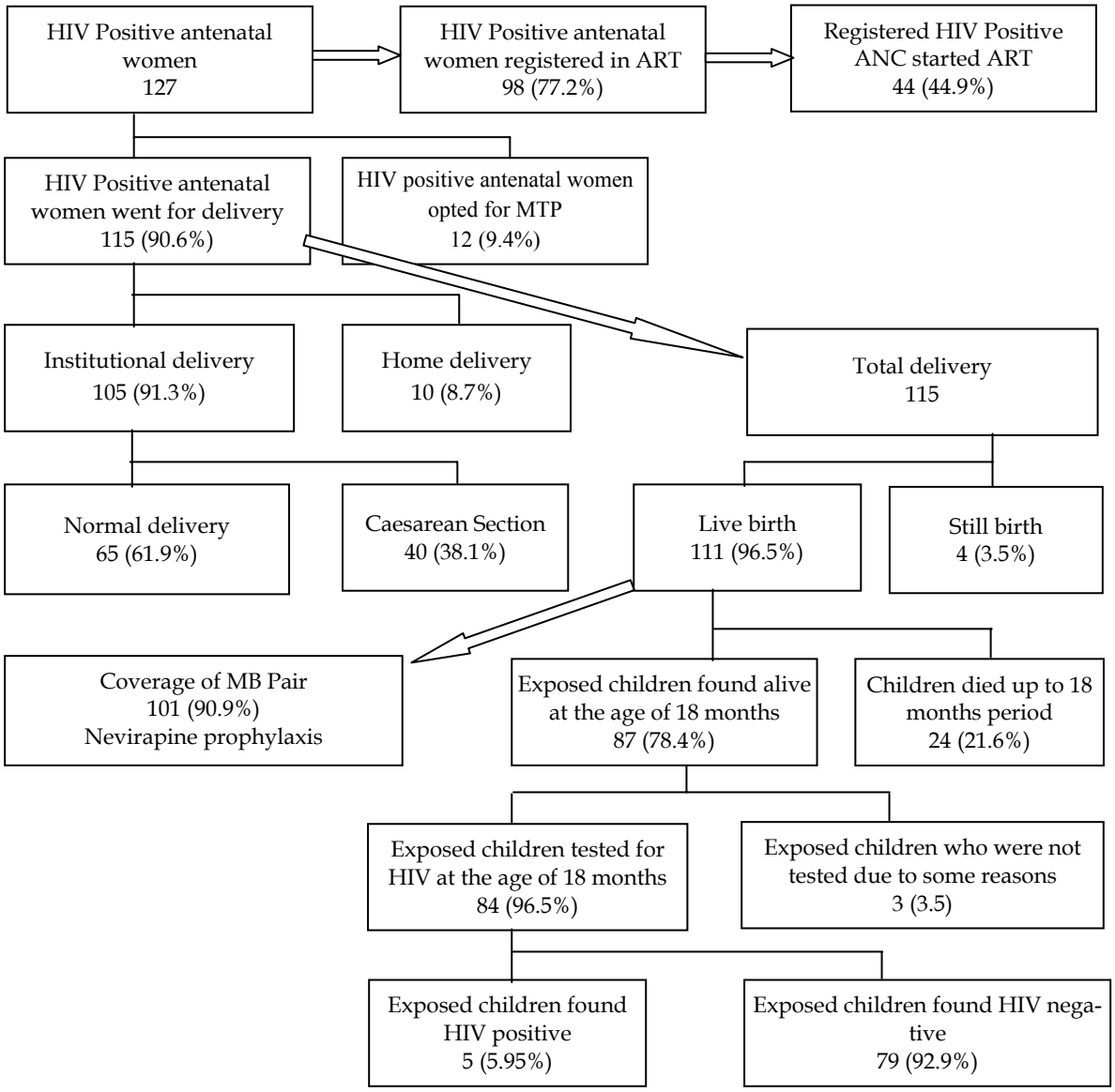


Figure 2: cohort of follow up of registered HIV positive antenatal women and their children



DISCUSSION

Figure 1 reveals that strikingly a large number of mothers did not attend the concerned PPTCT centres during their deliveries. Records of only 127 mothers (out of 282) were available in these centres during the study. Remaining155 (55%) mothers did not come to collect the report of HIV testing and for post test counselling. Adherence rate was low for mothers and their children. A large number of mothers and their children were loss to follow up. The fear of social stigma and discrimination may play a role which compels the women to hide their identity as HIV positive and to choose some other place for confinement may be home delivery. Also there might be other reasons like lack of support from husbands who do not want to undergo HIV testing, long waiting times at the PPTCT centres and inability to afford transport costs related to the long distances to the hospital. Jodie Dionne-Odom et al. found that Loss to follow-up during and after pregnancy was common in HIV-infected women in Haiti under PMTCT Option B. Since sociodemographic factors and distance from home to facility did not predict LFU, future work should elicit and address barriers to retention at the initial prenatal care visit in all women. Better tracking systems to capture engagement in care in the wider network are needed.[6]

Figure 2 shows that out of total 115 deliveries, 105(91.29%) deliveries were institutional delivery while 10 (8.7%) were home deliveries in spite of 2 tertiary hospital (simmer & civil), 37 Urban Health Centers (12 UHCs have maternity homes) and so many Private hospitals in Surat. So even though there is chiranjivi yojana for these mothers, they are not much aware about taking the advantages of

this yojana also. They are not bothered about this health care system. Kasenga F et al. also found same condition in Malawi that a total of 75 HIV-positive women were registered in the PMTCT at Malamulo SDA hospital, 40 (53%) women delivered in the hospital and 35 (47%) delivered at home. [7]

Figure 2 shows, only 12 (9%) mothers opted for termination of pregnancy. So even after knowing HIV status 91% continued the pregnancy so they might not be aware of seriousness of HIV/AIDS or they might not be convinced for abortion by counsellor or even after knowing of HIV/AIDS, they wanted to take risk of continue pregnancy for desire of child even after having HIV as it might be their first child. In our society due to customs and beliefs, cultural pressure to have children is very high so number of HIV positive antenatal mothers who choose abortion would likely to be low. Bal Runa et al. found same findings in the study in west Bengal that out of 49 HIV positive mothers, only 6(12.24%) mothers opted for MTP.[12] Onah HE et al. found in the study in Nigeria that 41 (47.1%) delivery were occurred in 87 HIV-positive antenatal women.[10]

Figure 2 showing that, out of 105 institutional delivery, 65 (62 %) had vaginal delivery and only 40 (38%) underwent caesarean section. Elective caesarean deliver reduces the perinatal transmission by 50 % percent and should be the choice in ideal settings. In case vaginal delivery is opted for safe delivery practices with minimum interventions, delayed rupture of membranes, avoiding episiotomies and unnecessary blood transfusions should be followed to reduce transmission.[8] Elective caesarean section should the preferred mode of delivery in HIV positive antenatal women which is possible only by effective antepartum follow up. Predominance of vaginal deliveries silently suggests the need for sensitization of involved staff of the ICTC & PPTCT centres. Kanchan Mukherjee found in the study in Mumbai that among 362 mothers, 295 had vaginal deliveries and 64 underwent elective caesarean section.[9] Onah HE et al. Also found that out of 41 deliveries, (33.4%) one-third of the women had a caesarean section and (66.58%) two-thirds had vaginal delivery which correlates with our study. [10] Yogev R found that out of 47 deliveries 35 (75%) had vaginal delivery while 12 (25%) underwent caesarean section. [11]

Figure 2 shows, out of 127 HIV positive antenatal mothers, 98(77%) mothers were registered in ART centre but 29 (22.8%) were not registered. As this again depicts that they might not aware about doing registration in ART centre or they might not be convinced by Counselor for registration. They should know the importance of registration as in future they will have to take treatment from ART centre only. They should know about facilities of ART centre that provide antiretroviral drugs free of cost to all patients. Counsellor should explain everything including registration, drugs etc. so there might be defective counseling or information by counsellor was not gained by the mothers/husbands. Moth IA et al. found in the study in Kenya that knowledge of PMTCT was inadequate even after counselling, as participants could not recall the information divulged during counselling. In addition, 80% of clients(out of 133) did not present for follow-up counselling irrespective of HIV status, and 95%, did not disclose positive HIV status to spouses/relatives for fear of stigma, discrimination and violence and unsupportive spouse. Inadequate counselling services delivered to clients affected service utilisation, in that significant dropout occurred at the stages of HIV result, enrolment, and delivery due to fear of positive HIV result, chronic illness and inability to pay for the services. [13]

As per figure 2, out of 111 live birth, 105 (95%) mothers and 101 (91%) babies received Single dose Nevirapine prophylaxis in the form of Tablet and Syrup Nevirapine respectively (excluding home deliveries & still birth). Coverage of nevirapine to both mother and baby (MB-pair) was reported in 91% (101/111) of the live births which ideally should have been 100%. Nevirapine only to mother or only to baby is considered to be resulting into decreased efficacy of intervention. Simplicity, low cost & efficacy are the reasons of the nevirpaine prophylaxis to mother and baby why it's being widely used in resource constrained settings for PPTCT programs globally as well as in India.[14] In the study in Malawi, Manzi M et al. found that out of 646 deliveries, 288(45%) mothers and 222 (34%) babies received Nevirapine prophylaxis.[15]

As maternal HIV antibody transferred passively during pregnancy can persist for as long as 18 months in children born to HIV-infected mothers, the interpretation of positive HIV antibody test results is more difficult in children below this age. In India, antibody tests and ELISA can be used for infants > 18 months as per adults; and for infants < 18 months, DNA PCR will be done using dried blood spots (DBS). [16]

According to, Figure 2, at the end of the study out of 111 live births, 87 babies remained alive at the end of 18 months as 24 babies (22%) (excluding 4 still birth) died up to 18 months of age. Out of 87 children, 84 babies (97%) were tested at the age of 18 months. And from these 84 babies, 5(5.95%) were diagnosed HIV positive and 79 were diagnosed HIV negative. Out of 84 babies, 3(2.4%) were not tested as parents were not ready for HIV test-

ing of their babies due to stigma, discrimination, fear of the baby being positive, migration to other areas. They felt that after knowing the HIV status, they could not live with that burden in life so they did not even want to know the status of child. Srijayanath Parameshwari et al. in their study in Tamilnadu reported 2 infants turning out to be positive out of 46 live births. (4.3%). [17]

In this study, transmission is quite low but it might be hidden due to proportion of the death (28/115) which might be contributed by their HIV status or might be due to any other infections. In other studies, transmission was high like Taha TE et al. found mother-to-infant HIV transmission rate 35.1% among 237 infants of 679 HIV positive mothers in the study in Malawi.[18] Surekha Tayade et al reported 7.4% babies were found to be positive out of 27 babies reported at 18 months of age. that follow up of babies after birth till the age of 18 months proved a difficult task in this study.[19]

CONCLUSION

Utilization and uptake of PPTCT services among the HIV positive antenatal women has remained low even after availabilities of 5 PPTCT centres in the study area. Just like mothers, drop out in service utilization was observed among exposed children also. With proper sensitization of counselors, loss to follow up could be minimal and programme could maximize the reach of the PPTCT services to HIV positive antenatal women. There is need to be more vigilant to counsel the women to uphold their confidence regarding the need, safety and efficacy of delivery in their particular healthcare setup so that they may get the benefits of the PPTCT program to minimize the vertical transmission. Efforts to follow-up women who are not continuing with the services may give better insights into the healthcare-seeking behaviour of the HIV positive antenatal women, particularly those at risk. Despite these limitations, this study excellently depicts the utilization of PPTCT services by HIV positive antenatal women of Surat city which are useful for further improvements in the PPTCT cascade for policy makers to prevent vertical transmission.

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