

Recent Trends of HIV Transmission from Mother To Child: Retrospective Study of 4 Years in a Tertiary Centre



Medical Science

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ABSTRACT

OBJECTIVE- Mother to child transmission of HIV is a major route of HIV infection in children. The objective of this study is to analyse the response to implementation of PPTCT programme and to see the fetomaternal outcome of pregnancy in HIV positive mother

METHODS- this retrospective study was done in the department of obs & gynec, sardaben hospital, NHL medical college, ahmedabad and data collected from April 2011 to March 2015, a period of 4 years was studied. PPTCT centre was established in our institution in 2006. All pregnant women attending the antenatal clinic or labour room are counselled for HIV testing and tested as per NACO guidelines. Babies to HIV positive women delivered were followed up to 18 months for testing.

RESULTS- prevalence of HIV infection in pregnant women delivered at our institute is 0.332%. Out of them, 87% were booked and 13% were unbooked. Of 85 seropositive women who delivered, 52 (62%) had vaginal delivery and 32 (38%) had LSCS for obstetric indication. Of 85 seropositive women who delivered one was IUD and 84 were live births. 84 babies screened for HIV, 2 were reactive. 40 babies were given exclusive breastfeeding and 44 babies were given exclusive replacement feeding.

CONCLUSION- Mother to child transmission is one of the major route of HIV transmission among children all over the world. With effective implementation of PPTCT programme, HIV infection in antenatal women is showing decreasing trend. Expanding programmes for PPTCT and use of more effective ARV regimens helped prevent more than 8,00,000 children from becoming newly infected between 2005 and end of 2012.(1)

INTRODUCTION:

Estimated people living with HIV (pLHIV) in india is 2.1 million (2011) and of 2012 approximately 35.3 million people have HIV worldwide with number of new infections that year being about 2.3 million. Of these approximately 16.8 million are women and 3.4 million are less than 15 year old. (2) Prenatal infections has resulted in large number of children being born with HIV. Transmission of infections from mother to child is a major factor for new causes in all over world.

A total of 14.2 lakh children are estimated to be living with HIV/AIDS in india with about 14000 new infections occurring annually. PPTCT programme has been implemented since 2002 with the aim of reducing transmission of HIV in antenatal period, intranatal period and postnatal period by various measures. (3)

The aim of the retrospective study was to analyse the effectiveness of implementation of PPTCT programme and to see the fetomaternal outcome of pregnancy in HIV positive mother.

MATERIAL AND METHODS:

This is a retrospective study done in obs & gynec department, sardaben hospital, NHL medical college, Ahmedabad from April 2011 to March 2015, a period of 4 years. According to the protocol in the hospital, all pregnant women attending the antenatal clinic and labour room are counselled for HIV testing, informed consent was taken and HIV testing was done as per NACO guidelines.

The first test was done by coombs aids RS. If sample tested positive then it was tested with HIV EIA coombs. If the sample tested positive in the second test then the third test was done by SD Bioline. The samples which tested positive with all the above tests were considered to be HIV positive (WHO strategy III). Seropositive were questioned regarding their awareness of AIDS, personal habits, blood transfusion, drug abuse and method of contraception. Spouse of the seropositive pregnant women were also counselled and treated for HIV antibodies after taking consent. Post test counselling and after maintaining strict confidentiality the reports were disclosed. (4)

From April 2011 to March 2015, all pregnant women received tablet nevirapine 200mg (single dose) at the onset of labour

and pregnant women already on ART were continued with their regimen. Single dose nevirapine syrup 2mg/kg bodyweight was given to all the live babies and continued for 6 weeks and at 6 week clotrimazole prophylaxis was started and continued for 18 months and babies were followed upto 18 months for confirmation of their HIV status. (5)

RESULTS:

TABLE 1:- Prevalence of HIV infection in women delivered at the institute

TOTAL NUMBER OF DELIVERIES	HIV REACTIVE WOMEN	PREVALENCE
25554	85	0.332%

In this study total number of deliveries were 25554 in this institute, out of which 85 were HIV reactive patients. So prevalence of HIV in pregnant patients was 0.332%. out of which, 1 was IUD delivery.

TABLE 2:- Patients : Booked or Emergency

	NO. OF PATIENTS	PERCENTAGE
BOOKED	74	87%
EMERGENCY	11	13%

Out of 85 patients, 74 (87%) were registered during antenatal period and 11 (13%) were referred from outside

TABLE 3:- Prevalence of HIV status in relation to status of husband

	HIV REACTIVE	HIV NONREACTIVE
HUSBAND	60	25
WIFE	85	00

Out of 85 HIV reactive wives 60 husbands were HIV reactive and 25 were nonreactive. It suggest that HIV is sexually transmitted disease.

TABLE 4:- Mode of delivery and MTCT

MODE OF DELIVERY	NO. OF PATIENTS	CHILD HIV POSITIVE	TRANSMISSION RATE
NORMAL DELIVERY	53	2	3.8%
LSCS	32	0	0

Out of 85 patients, 53 were delivered vaginally and out of them 2 babies became seropositive and hence transmission rate is 3.8%, whereas 32 babies were born by LSCS with zero transmission rate.

TABLE 5:- Rate of mother to child transmission rate of HIV

TOTAL NO. OF LIVE BABIES SCREENED	HIV POSITIVE	TRANSMISSION RATE
84	2	2.38%

In this study, out of 84 live babies 2 were found reactive on screening upto 18 months

TABLE 6:-Breastfeeding and MTCT

	NO. OF PATIENTS	CHILD HIV POSITIVE	TRANSMISSION RATE
EXCLUSIVE BREASTFEEDING	40	2	5%
EXCLUSIVE RE-PLACEMENT	44	0	0

Out of 84 babies, 40 were given exclusive breastfeeding and out of them 2 babies (5%) were HIV reactive and 44 babies were given exclusive replacement feeding

DISCUSSION:

The data represents the implementation and response to PPTCT programme for HIV in a tertiary centre. Prevalence of HIV infection in pregnant women delivered at this institute is 0.332% and that of india is 0.30%(7)

Regarding spouse testing, 60 husbands of HIV women were HIV reactive and 25 were non reactive. It suggest that HIV spread by sexual route in this study. It is the most common route. Maximum transmission take place late in pregnancy and often during labour. Vaginal delivery have been advocated as a means of intrapartum transmission. Most of the seropositive females , 53(62%) delivered vaginally and 32(38%) had a caesarean section for obstetric indication.

Breastmilk contains HIV virus and accounts for 14% risk of transmission to the newborn or 0.7-1% per mouth. Regarding breastfeeding practice, 40(49%) of women opted for exclusive breastfeeding and 44(51%) of women opted for exclusive replacement feeding.

Single dose nevirapine at the onset of labour reduces the risk of transmission by 45% and the transmission of HIV to newborn was 8.6-13.7%.(6) A total of 84 children were tested and out of them only 2 were found seropositive from april 2011 to march 2015. All mothers and babies received single dose nevirapine and it has been effective in bringing down parent to child transmission from 30% to 10%.(8)

CONCLUSION:

HIV infection in antenatal women is not only a serious risk to her but also to the unborn child. To achieve a high success rate , PPTCT programme must have well trained supportive staff who take great care to ensure confidentiality. They must be backed up by effective HIV testing and counselling programmes and by good quality HIV/AIDS education , which is essential to eliminate myths and misunderstandings among pregnant women.

Prevention of mother to child HIV transmission (PMTCT) is still the most effective intervention in fighting new HIV infections

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