

HIV INFECTION AND PREGNANCY IN AND AROUND VISAKHAPATNAM

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SUMMARY

A preliminary survey of the prevalence of HIV seropositivity in antenatal women in and around Visakhapatnam was carried out. The samples consisted of 500 sera collected from women attending the antenatal OPD, King George Hospital for a regular check-up. All the Sera were subjected to HIV antibody testing by ELISA technique (Detect-HIV TM) and Immunocomb - BISPOT.

Serum samples reactive with both test systems were confirmed by Western blot test at NIV, Pune, 9 (1.8%) sera were found to be positive for HIV antibodies six (1.2%) were positive for HIV-1 alone, 2 (0.4%) were positive for HIV-1 and HIV-2, and 1 (0.2%) was positive for HIV-2 alone.

INTRODUCTION

Of the 12 million HIV infected persons in the world, more than 4 million are women, and more than 60% of them live in developing countries, (Prema Ramachandran 1991). By 1990, an estimated 2-3 million infants were born

to HIV infected women. Most of them are likely to lose one or both of their parents as a results of AIDS, and become orphans. Unlinked anonymous screening for HIV in pregnancy is being carried out in India to obtain epidemiological data on the prevalence of HIV infection in antenatal women. Though there is no justification in this screening as in that for syphilis where it can be treated. We can do counselling for MTP in early pregnancy

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in seropositive women. It has been shown that HIV infection will develop in 20-50% of the children of infected women (Mok et al 1987 and Blanche et al 1987). Currently it is estimated that 10% of AIDS patients are women of reproductive age (Stratton et al 1992). The percentage of women with AIDS rose from 6.6% in 1985 to 11.5% in 1990. Over 1/3 of the infected women have HIV by hetero sexual transmission (Stratton et al 1992).

The present study is done with a view to know the prevalence of HIV seropositivity among pregnant women in Visakhapatnam, Andhra

Pradesh.

MATERIALS & METHODS

Serum samples were collected from 500 pregnant women and subjected to HIV antibody testing. The techniques used were ELISA (DETECT-HIV TM) and DOT-EIA (Immunocomb-BISPOT). Sera reactive with both test systems were sent to NIV, Pune for confirmation by Western blot test (WBT).

RESULTS

Out of the 500 Sera tested, 9 (1.83%) were positive for HIV antibodies, confirmed by WBT (Table I), 6(1.2%)

TABLE I
RESULTS OF HIV SCREENING

Total No. Of Sera Screened	POSITIVE						
	Total	HIV - 1		HIV - 1 & HIV - 2		HIV - 2	
		No.	%	No.	%	No.	%
500	9 (1.8%)	6	1.2	2	0.4	1	0.2

TABLE II
AGE WISE DISTRIBUTION OF HIV SEROPOSITIVITY

Age Group (years)	No. Screened	Positive
20	120	2
21-30	310	7
>30	70	Nil

were positive for antibodies to HIV-1 alone, 2 (0.4%) were positive for both HIV-1 and HIV-2 antibodies, and 1 (0.2%) was positive for HIV-2 antibodies alone.

Majority of the seropositive women (77.7%) were in the age group 21-30 years (Table II). No seropositives could be detected in the age group of more than 30 years.

DISCUSSION

In this study conducted in 1994 the HIV seropositivity among antenatal women is 1.80%. In cities like Boston, New York and Miami, in 1987, 1 to 3.5% of women delivering babies were infected with HIV (Landesman 1987) in India, reported seroprevalence rates range between 1/1000 to 1% among women attending AN clinics (Das et al, 1989) Lakshmi et al (1991) have reported an incidence of 1.5% in Tirupathi (Table III). The present study showed a higher percentage of seropositivity probably representing the logarithmic trends in the increase

of AIDS seropositivity in all risk groups, women of reproductive age group being one of them. Visakhapatnam is one of the major port cities in India, and as such we can expect a large number of floating population, and rapid spread of HIV.

Large percentage of seropositives occurred in the age group 21-30 years, and in the middle income group, and this results is consistent with that of Prabijot et al (1995).

As pregnancy by itself can alter the course of HIV infection by inducing an immuno compromised state, routine screening of pregnant women may offer a great clue to counselling regarding continuance of pregnancy, and good antenatal and postnatal care. As the virus is present in all body fluids, routine HIV screening in pregnancy can warn an obstetrician in careful handling of the placenta and amniotic fluid during childbirth, to prevent the risk of exposure.

TABLE III
COMPARATIVE INCIDENCE OF HIV SEROPOSITIVITY

S.No.	Authors	Time of work	Place	Seropositivity
01.	Lakshmi et al	1991	Tirupathi	1.5
02.	Singh et al	1992	Manipur	0.86%
03.	Prabijot et al	1995	Bombay	8.04%
04.	Pal A et al	1993	Allahabad	0%
05.	Present study	1994	Visakhapatnam	1.83%

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