

## HIV INFECTION IN PREGNANCY

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### SUMMARY

Four hundred and thirty two women predominantly from middle income group attending the antenatal clinic in PSG Institute of Medical Sciences, Coimbatore were screened for Syphilis (VDRL test), hepatitis B (ELISA for HbSAg) and HIV (ELISA for HIV antibodies) infection. VDRL test was positive in 2/402; HbSAg was present in 1/432; none of the 432 women screened had HIV antibodies. If other studies confirm the relatively lower prevalence of HIV infection among middle class families, it is possible that the magnitude of the HIV epidemic in India may be substantially lower than current estimates; steps to protect and promote mutually faithful monogamous relationships in this vast segment of Indian population may have to be taken up as a part of the AIDS Control Programme.

### INTRODUCTION

HIV infection was initially reported in homosexuals and Intravenous drug users (IVDU) in USA. Data collected, collated and reported by the Global Programme of AIDS of the World Health Organisation had shown that HIV infection is a Sexually Transmitted Disease pandemic. As with the oldest of the known STDs, syphilis, women get readily infected with HIV through

sexual transmission and transmit the infection to the foetus perinatally. In India reported seroprevalence rates range between 1/1000 to 1.0% among women attending antenatal clinic as reported by Das K. et al (1989), Lakshmi M. et al (1991), Pal A et al (1993), Ramachandran P (1990) and Singh N.B. et al (1992).

In India most of the studies in pregnant women have been done in women from lower income groups attending Govt. Medical College hospitals. A variable proportion of women from high risk groups may be

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attending these clinics and this might account, at least in part, for the reported variations in the prevalence of HIV infection. It is possible that the prevalence of HIV infection in the middle income group of women might be lower; there is no data on HIV seropositivity rates among this group.

PSG Institute of Medical Sciences, Coimbatore draws its clientele from urban middle income group. All women attending the hospital antenatal clinic between April 1991 - September 1992 were serologically screened for syphilis (by VDRL test), hepatitis B (by HbsAg test) and HIV (by ELISA test for HIV antibodies) infections. The screening for the former two infections was done at the Microbiology Dept of the Institute and the ELISA testing for HIV was done at Microbiology Dept of Madurai Medical College. The screening for HIV infection was unlinked anonymous screening.

### RESULTS AND DISCUSSION

The study population was mainly young women with a mean age of 23.93 (S.D. 9.63) and mean parity of 0.58 (S.D. 0.5); 55% of the women and 71% of the husbands had secondary education or more. Over 60% of the husbands were engaged in skilled or semiskilled jobs mostly in factories or mills.

Sexual history especially history of extra or premarital sex was not obtained because it is not the routine practice in the antenatal clinic and it is difficult to get reliable history in this aspect from women attending a crowded antenatal clinic. HbsAg and VDRL test results were used as markers to assess prevalence of STD in this population. VDRL test was positive in 2/402 women. Hbs

Ag was present in 1/432 women. None of these women had HIV antibodies. The prevalence of both HbsAg and VDRL positivity were lower in this study population than other Indian reports Pal A (1993) and Singh N.B (1992). It is therefore not surprising that there were no HIV seropositive individuals in this group.

The study population is too small to draw any definite conclusions. However it is possible that these middle income, urban, educated women were mostly in stable mutually faithful monogamous relationship with their spouses. This may account for the low prevalence of the three STDs.

In India in the eighties and nineties the middle class is coming to occupy an increasingly larger proportion of the total population. There is a belief that in the traditional middle class families the norm is stable 'Family' ties and monogamous mutually faithful relationship. This trend is possibly more marked in some Southern states like Tamil Nadu. It is important to confirm the low STD rates in this segment of the population. If a similar trend is confirmed, a vigorous campaign to protect and promote the mutually faithful monogamous relationship in this population should be undertaken. Every step should be taken to discourage casual sex. The Asian middle class, if they hold on to the middle class family values, may contribute not only to a substantial reduction in the magnitude of the HIV epidemic but also provide succour to AIDS patients in the family.

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