

The Seroprevalence of HCV, Hbsag, HIV, Syphilis in Pregnant Women under PPTCT Programme and Blood Donors: A Retrospective Analysis

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Background

WHO progress report- 2011 on HIV/AIDS in South East Asia Region reveals that 34 million people were living globally with HIV, and 2.4 million were in India. National prevalence rate was found to be 0.31% and 0.48% in women attending Antenatal clinics. The Indian subcontinent is classified as an intermediate Hepatitis B Virus (HBV) endemic (HBsAg carriage 2-7%) zone. India has 43 million HBV positive and 15 million HCV positive persons. The risk of transfusion transmission of these viruses may be alarming due to high seroprevalence of HIV, anti-HCV, and HBsAg (0.5%, 0.4%, and 1.4%, respectively) among blood donors. Blood is one of the major sources of transmission of hepatitis B, hepatitis C, HIV, syphilis, and many other diseases. In July 1989, mandatory screening of blood and blood products for HIV antibodies was initiated by Indian National AIDS Control Origination (NACO). Testing for human immunodeficiency virus (HIV), syphilis, and hepatitis B surface antigen (HBsAg) in pregnancy and labor is medically indicated to prevent vertical transmission. Prevalence of these infections among the antenatal population may be a reliable indicator of general population prevalence and determinant of vaccination policy. Successful interventions to prevent vertical transmission linked to intrapartum rapid testing have been demonstrated in a variety of limited resource settings. Keeping in mind the grave consequences of these infections and to restrain the transmission to minimum, it is very important to remain vigilant about the possible spread. Routine surveillance, screening of blood donors, strengthening the services for treatment of sexually transmitted diseases, preventing mother to child transmission of blood borne pathogens has been put forward by NACO for strict implementation.

Aims & Objectives

To determine the seroprevalence of HCV, HBsAg, HIV,

Syphilis in pregnant women under PPTCT programme and Blood donors.

Material & Methods

A record based retrospective analysis of blood donors and antenatal mother's data of the last 10 years was recorded at AFMC Hospital, Pune. After taking written informed consent blood samples were collected from:

1. Voluntary blood donors.
2. Antenatal mothers attending ANC clinic.

Standard work precautions were taken during the blood collection and screened for HBsAg, anti HCV antibodies, anti HIV antibodies and Reagin antibodies.

Results

Out of a total of 80,500 apparently healthy, voluntary blood donors screened; 1339 (1.7%) were HBsAg positive, 551 (0.68%) were positive for antibodies to HIV, 271 (0.34%) were positive for antibodies to HCV and 352 (0.44%) were reactive by VDRL. Out of 3289 pregnant women registered for antenatal checkup 34 (1%) were found to be positive for antibodies to HIV.

Conclusion

Screening of blood donors helps in deferring of infected donors and thus reduce wastage of huge resources and in reducing transmission rates, similarly screening of asymptomatic antenatal mothers for HIV prevent transmission to their children and also receiving timely intervention thus reducing disease burden in the community. The need of the hour is to provide universal access to these services by involving the NGOs and the private sector. The main issue remains that screening methodologies need to be not only well utilized but also to be replaced by more sensitive and better techniques so as to further reduce risks of transmission.