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AIDS IN PREGNANCY

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Introduction

HIV is a complex chronic medical condition which, if untreated, is associated with high morbidity and mortality. Transmission is through sexual intercourse, injecting drug use, transfusion of blood or blood products and from mother to child during pregnancy and breast feeding. HIV is retrovirus containing reverse transcriptase. This enzyme allows the virus to transcribe its RNA genome into DNA, which then integrates into host cell DNA. HIV preferentially targets lymphocytes expressing CD4 molecules (CD4 lymphocytes), causing progressive immune suppression.

Most of the thirty-three million people living with HIV are in the developing world, where HIV infection in pregnancy has become the most common medical complication of pregnancy in some countries. More than 70% of all HIV infections are as result of heterosexual transmission and over 90% of infections in children result from mother-to-child transmission. Almost 600000 children are infected by mother-to-child transmission of HIV annually, over 1600 each day.

In south-east Asia, the proportion of infections occurring in women is increasing in many developed countries. Women are particularly susceptible to HIV infection for both biological and socio-cultural reasons. India was categorized as a low prevalence nation for HIV with a seroprevalence rate of less than 1% among the adult population. The country experienced a sharp increase in the estimated number of HIV infections from a few thousand in the early 1900s to around 5.2 million adults and children living with HIV/AIDS in 2005. In view of our large population pool of one billion plus, a mere 0.1 percent increase in the prevalence rate will raise the number of persons living with HIV by over half a million. In India, the predominant mode of HIV transmission is through heterosexual contact, therefore, unsuspecting women are at high risk of getting the infection.

Human immunodeficiency virus (HIV) infection in pregnancy involves counseling, management, prevention, screening and treatment. HIV data from antenatal women has been used to monitor trends in the general population and to predict the seroprevalence in young children. In children below the age of 15 years mother to child transmission is by far the most significant route of transmission of HIV infection. While heterosexual contact is the commonest mode of spread of the virus in our country, perinatal transmission accounts for 4% of the total HIV infection load in India. As the HIV-positive women in India are increasing in number, consequently the number of babies acquiring HIV infection in the perinatal period is also expected to increase if the infection goes undetected during pregnancy. Therefore, screening of pregnant women at an early stage of pregnancy may help in prompt counseling and therapy, thereby reducing the risk of transmission to the child.

HIV testing is provided to all pregnant women in two ways: opt-in or opt-out testing. In areas with opt-in testing, women may be offered HIV testing; women who accept testing will need to

sign an HIV testing consent form. In areas with opt-out testing, HIV testing is automatically included as part of routine prenatal care.

HIV antibodies were tested by the three ELISA/ Rapid/ supplemental tests protocol as per the guidelines laid down by the World Health Organization (WHO Testing strategy III) and positive test result disclosed only after post-test counseling of the patients.

COUNSELING

The most effective interventions to reduce transmission from mother to child depend upon a woman knowing her HIV status and that, in turn, depends upon the availability of information, counseling and voluntary testing services.

Pre-test information and counseling:

- Information about the sexual transmission of HIV and how to prevent it
- Information about transmission of HIV from mother to child, and possible interventions.
- Information about the HIV-testing process.
- Assurance of confidentiality and discussion of shared confidentiality and couple counseling.
- The implications of a negative test result, including information on how to remain HIV-negative, promotion of breast feeding and family planning.
- The implications of a positive test result, including costs and benefits of potential interventions, promotion of safe infant feeding practices and family planning, a discussion of their own, their family's and their child's survival and the possible exposure to stigma.
- Counseling for risk assessment.

The women who are HIV positive should be counseled about the increased risk of preterm delivery associated with HAART (Highly Active Anti Retroviral Therapy).

SCREENING

All the women are not aware that they are infected with HIV. Therefore, experts strongly recommend that all pregnant women undergo screening for HIV infection.

Care before pregnancy:

Women who have HIV should talk to their HIV specialist before trying to become pregnant. Some HIV medications are not safe to take during pregnancy and it may be necessary to switch before trying to conceive. It is also important to take your HIV medications regularly. Pregnancy does not appear to worsen HIV or increase the risk of death from HIV. It is not clear if HIV or HIV treatment increase the risk of pregnancy complications, such as prematurity, low birth weight, and still birth. However, it is very clear that certain HIV medications, such as zidovudine can significantly reduce the risk when the newborn will become infected with HIV when the medication is taken during pregnancy and labor and then given to the newborn after delivery.

Care during pregnancy:

After evaluation, that she is suffering from HIV during pregnancy she should meet the HIV specialist, obstetrical provider, to find out the management of HIV infected women. After that the blood tests to be done to know the viral load and the number of CD4 cells. HIV medication is more useful when it is given more than one drug (HAART and ZDV) is included in the combination, because it decreases the mother to child transmission. HIV medication depends upon the immune status of the mother for her health. If HIV treatment is not needed then that HIV medication generally started after the first trimester to prevent unnecessary drug exposure to the baby. Once started, medications are continued throughout pregnancy to prevent transmission.

Medications to avoid:

There are several HIV medication, which should not be used during pregnancy. These included Efavirenz during the first trimester and then the combination of Stavudine (d4T) and didanosine (ddl). Nevirapine is generally not started in women with a CD4 count > 250/mm^3.

Monitoring during pregnancy:

Throughout pregnancy, the patient will see obstetrical provider and HIV specialist at regular intervals. A detailed ultrasound is usually recommended at 18 to 20 weeks of pregnancy to evaluate the growing fetus.

The CDC has determined that voluntary HIV screening

is cost-effective, even in healthcare settings where there are low rates of HIV. Early identification and diagnosis is a key public health strategy in the reduction of HIV transmission. The benefits of testing are to protect the mother's health and to prevent mother–to-child transmission of HIV.

The most common HIV test is the HIV antibody test. HIV antibodies are a type of protein the body produces in response to HIV infection. An HIV antibody test looks for HIV antibodies in a person's blood, urine or fluids from the mouth. Pregnant women who test positive for HIV have many options to stay healthy and protect their babies from becoming HIV infected.

The viral load was significantly higher in the women who passed on HIV to their infants during the 30th week of pregnancy 42% of women who transmitted HIV to their infant had a viral load above 10,000 copies/ml.

HIV infection was transmitted in the womb in 38% of cases, the other infants being infected during delivery; women with a viral load above 500 copies/ml at this time were substantially more likely to transmit HIV to their baby than those women with a viral load below this level.

Antenatal screening for HIV infection, Syphilis, Hepatitis B, and rubella early in pregnancy is necessary. A mother who knows early in her pregnancy that she is HIV infected has more time to make important decisions. She and her health care provider will have more time to decide on effective ways to protect her health and prevent mother-to-child transmission of HIV. She can also take steps to prevent passing HIV to her partner. If a women declines an HIV test, this should be documented in the case sheets. If a woman tests HIV negative but is judged by here clinician as being a high risk of acquiring HIV, offering a repeat HIV test should be considered. Repeat test should be available at any time during pregnancy. Rapid HIV tests use rapid-test devices to deliver results within 20 minutes of the sample being taken. Most of the rapid test devices currently in use test for antibody only. Pregnant women who are HIV positive should have additional blood tests for Hepatitis C, Varicella zoster, measles and toxoplasma. Women taking HAART at the time of booking should be screened for gestational diabetes.

to be continued in the next issue..

Shyness in children

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What is shyness?

Shyness is felt as a mix of emotions, including fear and interest, tension and pleasantness. It may lead to an increase in heart rate and blood pressure. Shyness can be a normal, adaptive response to any social experience. By being somewhat shy, children can withdraw temporarily and gain a sense of control. Generally, as children gain experience with unfamiliar people, shyness goes away. But if not, shyness can lead to problems such as:

- Less practice of social skills and fewer friends
- Poor self -image
- Low competence
- Less friendliness and likeability
- Children, who continue to be excessively shy, seem more lonely than their peers and have fewer closefriends and relationships with members of the opposite sex in adolescence and adulthood
- At times, shyness may interfere with optimal social development and restrict a child's learning.

What are the causes for shyness?

The following may be the causes for shyness.

- Genetic.
- A not-so-firm bond between the parent and the child.
- Poor learning of social skills.
- Parents, siblings, or others, harshly and frequently teasing or criticizing a child.
- New social settings, especially if the shy person feels that he is the focus of attention is the most frequent cause of shyness.
- Some aspects of shyness are learned; a child's cultural background and family environment may offer such models of social behavior.
- Sometimes the parents are too busy and are not able meet the child's basic emotional needs by not spending enough time with him.
- Sometimes the child has an inferiority complex and feels inadequate in comparison to a sibling who might be smarter or better looking than him.
- Some children are timid by nature and seem to fear almost everything around them.

What can parents and teachers do to help children overcome shyness?

There are many strategies that can be used to help children overcome shyness. Some strategies may be more effective with some children than with others. The key is to recognize when a child's shyness is becoming a problem and then act accordingly.

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- One way to help a child overcome shyness in certain social situations is to help him feel understood and accepted. Also, help the child identify and talk about his emotions. Let the child know that being shy is not a character flaw and it is nothing to be ashamed of.
- Prevent labelling the child as 'shy'. Children who are told that they are shy tend to start thinking of themselves as shy and stop making any effort to change.
- Set goals for more outgoing behaviour and then observe the child's progress. For many shy children, a realistic, challenging goal is to say at least one word to one new person every day. Other goals might include speaking in front of the whole class, or asking a question of the teacher.
- Set an example for the child. Children learn a great deal through observing the behaviour of parents and others. Parents who want their children to act in a more outgoing way should themselves act outgoing whenever possible in front of the children.
- Expose the child to unfamiliar settings and people. The more practice they get interacting with unfamiliar people, the faster the shyness will decrease. Prompt the child to interact with others.
- Reward the child for extrovert behaviour. For example, whenever he makes an effect to be outgoing, praise him.
- Help the child practice interacting with others. Some children do not know what to say in certain situations, such as when they meet a new child.

Parents can help shy children by encouraging them to practice social skills.

- Accept the child and be sensitive to his interests and feelings. This can make the child more confident, less inhibited and also help build his self-esteem.
- Help the child develop social skills by providing him opportunities to experience social situations. For example, encourage the child to invite a friends over to the house or to go over to a friend's house.
- Do not push a child into a situation which he considers threatening. Help the child feel secure and provide interesting material to help him participate in social situations.
- Share your experiences of being shy with the child.

Hearty Congratulations!

to

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