Pregnant pauses

Recent updates in preventing mother-to-child transmission

by Shari Margolese

Two thousand and five babies were born to HIV-positive Canadian women between 1984 and 2004. Each year, the number has grown steadily, from 87 babies in 1993 to 163 in 2004.

What's behind the baby boom? According to a study by investigators at the California Epidemiologic Investigation Service, HIV has little effect on the desire to have children. Highly active antiretroviral therapy (HAART) has significantly reduced the rate of mother-to-child transmission (MTCT) and has improved prognoses of people with HIV. Coupled with advances in reproductive therapy, these breakthroughs have led to more planned families among PWAs. In addition, increased efforts to provide HIV counselling and testing to pregnant women have identified more HIV-positive moms.

Transmission news

Researchers have discovered that tiny amounts of HIV-infected blood leak from the placenta to the infant when contractions occur. This important study confirms the need to begin treatment before the onset of labour. Treating co-infections caused by viruses, bacteria, and parasites may further reduce the rate of MTCT. One recent study, by scientists at the Center for Global Health and Diseases and the Center for AIDS Research at Case Western Reserve University in Cleveland, showed that women who are co-infected with a parasitic worm called helminth were seven times more likely to transmit HIV to their infants. Malaria and herpes are also known to increase MTCT.

Treatment during pregnancy

Treatment decisions during pregnancy should always consider the health of the mother. Although many resource-poor settings use monotherapy (one drug) to prevent MTCT, it is internationally accepted that this is sub-optimal treatment, and that combination drug treatments are the standard of care. In Canada, it's recommended that all HIV-positive pregnant women, regardless of viral load and CD4 count, use HAART. When you should start and what you should take depends on your individual needs; discuss it with your doctor.

Nevirapine

Women can develop resistance to single-dose nevirapine when it is used as monotherapy or in a sub-optimal regimen. According to McMaster University's Dr. Fiona Smail, a member of the working group responsible for developing Canadian consensus guidelines for HIV-positive pregnant women, Canadian women are not typically given single-dose nevirapine.

Research presented at the 2006 Conference on Retroviruses and Opportunistic Infections showed that although single-dose nevirapine use during pregnancies usually leads to resistance, it is still effective in preventing mother-to-child transmission in subsequent pregnancies. This is good news in the prevention of MTCT where access to treatment is limited; however, the research, according to Dr. Smail, probably has little relevance in Canada, where treatment aims for complete viral suppression in the late stages of pregnancy rather than single-dose nevirapine.

Women are three times more likely to experience liver toxicity from nevirapine than men. A CD4 count over 250 increases the risk 12-fold. In fact, there have been reports of nevirapine-related deaths due to liver toxicity, including among HIV-positive pregnant women. Women with CD4 counts over 250 and/or who are co-infected with hepatitis should take particular care when considering nevirapine as part of their HAART combination. So far, serious and fatal liver toxicity has not been reported after single doses of nevirapine. ⊕

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Resources on HIV and pregnancy

- Canadian consensus guidelines for the management of pregnancy, labour and delivery and for postpartum care in HIV-positive pregnant women and their offspring, *Canadian Medical Association Journal,* June 24, 2003
- www.cmaj.ca/cgi/content/full/168/13/1671
- Fertility, Conception, and HIV, by Shari Margolese
- www.sfaf.org//treatment/beta/b55/b55_fertility.pdf