Treating HIV During Pregnancy Also Lowers Risk of Transmitting Hep C to Baby

March 16, 2012 By Tim Horn

For women living with HIV and hepatitis C virus (HCV) coinfection, using HIV antiretroviral (ARV) therapy during pregnancy may lower the risk of transmitting both viruses to their infants, according to encouraging new data presented Tuesday, March 6, at the 19th Conference on Retroviruses and Opportunistic Infections (CROI) in Seattle.

Most research on mother-to-child transmission (MTCT) of hepatitis C was done before there was widespread access to combination ARV therapy among pregnant women living with HIV and HCV. In earlier years of the HIV pandemic, up to 19 percent of babies born to mothers living with HIV/HCV coinfection acquired HCV, versus 2 to 5 percent of babies born to mothers with HCV alone. Although combination ARV treatment has been proved to reduce MTCT of HIV, little has been known about the effects of modern-day HIV treatment combinations on MTCT of HCV.

Claudia Checa Cabot, MD, from the National Institute of Child Health and Human Development (NICHD) International Site Development Initiative (NISDI) and her international team of colleagues speculated that controlling HIV with ARV therapy in women living with HIV and hepatitis C might lower MTCT of both viruses.

Drawing from data collected from 2002 to 2008 in the Perinatal and Longitudinal Study in Latin American Countries (LILAC), Cabot and her colleagues reported that 739 of 1,409 pregnant HIV-positive women in the cohort had been tested for antibodies to HCV. Confirmatory testing for hepatitis C viral load (HCV RNA) was performed in all HCV antibody-positive women and women with a CD4 cell count of less than 200, even if the HCV antibody test result was negative.

Overall, 70 (9 percent) of the 739 women were HCV-antibody positive. Of this group, 44 (67 percent) had detectable hepatitis C virus (HCV RNA), as did an additional three women with low CD4 cell counts.

Mother-to-child transmission of HCV occurred in only four (8.5 percent) of the 47 infants born to women living with both viruses. None of the infants were born with HIV.

All of the mothers were taking ARV therapy while pregnant, and most had an HIV viral load of less than 1,000 copies when their babies were delivered.

All of the babies with hepatitis C were born to mothers with HCV RNA levels that were greater than 3.5 million copies during pregnancy. However, HCV RNA levels were not significantly lower among the mothers who did not transmit HCV to their infants.

Babies with detectable HCV RNA were considered to be living with hepatitis C. In one of the four infants, HCV RNA was less than 3,200 copies at 6 to 12 weeks after birth and became undetectable at 24 weeks.

“The HCV MTCT rate among HIV/HCV coinfected women with access to [combination ARV therapy] and well-controlled HIV infection may be lower than the transmission rates that were previously reported in other HIV/HCV coinfected populations, although our sample size and duration of study follow-up are limitations,” the researchers conclude. “Additional data from larger populations with longer infant follow-up are needed to better clarify whether populations of HIV-infected women with well-controlled HIV disease have lower HCV MTCT rates than what has been observed previously among HIV/HCV coinfected populations.”
