For Women, Hepatitis C May Hasten Menopause and Reduce Fertility

A recent study found that hep C was also associated with an increased risk of miscarriage.

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Hepatitis C virus (HCV) may compromise women's reproductive capacity, as the virus is associated with lower fertility, an increased miscarriage rate and earlier menopause. However, earlier treatment of the virus among women may help mitigate such risks, although more research is needed to make that determination.

Publishing their findings in the Journal of Hepatology, researchers enrolled a cohort of 100 women with hep C and chronic liver disease, 50 women with hepatitis B virus (HBV) and chronic liver disease who were matched with the HCV-positive women according to age, and 100 HBV/HCV-negative age-matched "healthy" control women without liver disease. Enrollment took place in Italy between July 2011 and March 2014; the women were followed through December 2015. None of the women had a history of drug abuse, and all of them were HIV negative.

The investigators also analyzed data on 6,085 HCV-positive, 305 HCV/HIV-positive and 20,415 HCV/HIV-negative women from a large U.S. database.

The researchers looked at the anti-Mullerian hormone (AMH) levels among the women, which are an indication of the reserves of eggs in the ovaries. A woman with a result below 0.16 nanograms per milliliter is considered menopausal.

Both those women with hep B and hep C had lower AMH levels than the women in the control group. Compared with those with HBV and the control group, those with HCV were a respective 11.6 and 5.3 times more likely to have a menopausal AMH level.

Looking at the group of women with hep C, the study authors found that lower AMH levels were associated with both a higher grade and stage of liver disease. Additionally, hep C infection itself was associated with a 9.4-fold increased likelihood of a miscarriage compared with being HCV negative. There was no such association between HBV and miscarriage.

All the women who were treated for hep C received interferon, a treatment that is now essentially obsolete thanks to the advent in recent years of direct-acting antiviral (DAA) medications for the virus. Those with genotype 1 of HCV were 2.3 times more likely not to achieve a sustained

virologic response 12 weeks after completing therapy (SVR12, considered a cure), while those with lower AMH levels were 3.7 times more likely not to be cured. (During the interferon era of treatment, genotype 1 was the most difficult to cure.)

Evidence suggested that a lack of a cure may lead a faster decline of AMH levels compared with achieving a cure. After hep C treatment, those who were not cured had a median AMH level of 2 ng/mL compared with 3.4 ng/mL among those who were cured. Among those treated for hep C, the miscarriage rate was 32 percent for those cured of the virus compared with 64 percent for those not cured, indicating that a cure was associated with a 74 percent reduction in the risk of a miscarriage.

Because all the women were treated with interferon, the researchers stressed that further research is needed to determine DAA treatment's impact on fertility.

Among the women in the U.S. cohort who had experienced pregnancy, those with hep C were 1.34 times more likely to have had a premature birth, 1.24 times more likely to have had gestational diabetes and 24 percent less likely to have had a live birth compared with HCV-negative women.

To read the study, click here.

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