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Cystic Fibrosis Research News

Title:

PREGNANCY AMONG CYSTIC FIBROSIS WOMEN IN THE ERA OF CFTR MODULATORS

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What was your research question?

Do pregnancy trends among women with cystic fibrosis (CF) differ from the general US population and do trends vary between women with different CF genotypes? How are pregnancy rates and outcomes changing among women with CF now that new therapies (ivacaftor and lumacaftor) that correct the basic CFTR defect are available?

Why is this important?

Women with CF are living longer and so the number of women facing family planning decisions continues to grow. The new therapies to address CFTR dysfunction may alter the effectiveness of hormonal birth control and have an unknown risk to pregnancy and fetal outcomes. It is important to understand the current pregnancy trends in CF and potential implications of chronic medications such as ivacaftor and lumacaftor, so that there is informed clinical counselling and decision making related to women's health issues in CF.

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What did you do?

We used retrospective US CF Patient Registry data from 2005 to 2014 to examine pregnancy rates and pregnancy outcomes by CF genotype before, during, and after the introduction of the therapies that correct the basic CF defect.

What did you find?

Pregnancy is less common among women with CF than the general US population and pregnancy rates differ by disease severity. There were no apparent differences in pregnancy outcomes by CF genotype, nor changes through time. However, pregnancy rates amongst women with CF eligible for ivacaftor did increase after the drug received approval.

What does this mean and reasons for caution?

The observed rise in pregnancy amongst women with CF may be a temporary consequence of strict birth control requirements during the period of clinical trials, as the CF population is small and a significant proportion were enlisted in trails. Alternatively, women with CF who have access to new disease modifying therapies may have a more positive outlook on their survival and therefore family planning. These data make it impossible to determine whether ivacaftor or lumacaftor impact hormonal birth control or put pregnant women with CF or their babies at risk.

What's next?

More detailed, prospective research designed to specifically determine whether new therapies that correct the basic CF defect also alter the effectiveness of birth control or impact pregnancy and birth outcomes among women with CF is needed.

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