Study finds TNF blockers are not associated with poor pregnancy outcomes

November 7 2023

Credit: Pixabay/CC0 Public Domain

According to new research at ACR Convergence 2023, the American College of Rheumatology's (ACR) annual meeting, continuing tumor necrosis factor inhibitors during pregnancy is not associated with worse

fetal or obstetric outcomes and may reduce the risk of severe maternal infections during pregnancy.

Tumor necrosis factor (TNF) inhibitors such as adalimumab and infliximab are often prescribed for inflammatory forms of arthritis that have not improved with other treatments. Although studies suggest the drugs are safe during pregnancy, many women stop taking them out of fear of harming the fetus. Unlike other medications used for inflammatory arthritis such as methotrexate, which can cause severe fetal complications, TNF inhibitors are not known teratogens (any agent that causes abnormality following fetal exposure during pregnancy).

To further test the safety of continuing TNF inhibitors during pregnancy, Anna Molto, MD, Ph.D., HDR, a rheumatologist and researcher in at Cochin Hospital in Paris, France, and her colleagues used data from a nationwide French health insurance database to emulate a randomized clinical trial (RCT). This type of trial relies on observational data to conduct a study when a gold standard RCT may not be ethical or feasible.

The researchers identified more than 2,000 women treated with TNF inhibitors for rheumatoid arthritis (579 patients) or spondyloarthritis (1,503 patients) between 2008 and 2017. Each had a singleton pregnancy, with 1,497 (72%) discontinuing treatment on learning they were pregnant. The mean age of the women at the start of pregnancy was 31± 5 years and mean disease duration was 4 ± 5 years.

The results showed no statistically significant difference in poor obstetric, fetal, or infant outcomes, including spontaneous abortion (a loss of pregnancy naturally before twenty weeks of gestation), medical termination of pregnancy, pre-eclampsia or eclampsia, gestational diabetes, preterm birth, small birth weight or major birth defects.

Interestingly, women who continued TNF inhibitors were less likely to be hospitalized for severe infections during pregnancy for six weeks postpartum compared to those who stopped treatment (0.2 vs. 1.3%, respectively). Molto says this finding was the most surprising.

"Although we had hypothesized that pregnancy outcomes would at least be comparable in both groups, we did not expect to have a lower risk of maternal infections in patients continuing TNFi, as infection risk is known to be increased with these treatments," she says. She speculates the finding may be due to lower concomitant use of corticosteroids but does not yet have the results to confirm her theory.

Regarding the overall study results, Molto says, "This data contributes to the increasing reassuring data on the use of TNFi during pregnancy. And more important, if a rheumatologist thinks about stopping a TNFi during pregnancy because of infection risk, this study suggests that this might not be justified."

Molto acknowledges the limitations of relying on claims data, noting that disease activity can't be measured, but also points out that using a nationwide database insures that "all French participants are included, [thereby avoiding] selection bias."

The next step, Molto says, is to test the hypothesis in a randomized controlled trial.

More information: Abstract #0477: Anna Molto et al, Continuing TNFi After Pregnancy Diagnosis in Women with Chronic Rheumatic Inflammatory Diseases Is Not Associated with Worse Obstetrical or Infant Outcomes and Seems to Reduce Risk of Maternal Severe Infection: The Results of the Emulated Target Trial BioGRIC (2023)

Provided by American College of Rheumatology