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New research indicates that when pregnant women take certain rheumatoid arthritis (RA) drugs that may cause immunosuppression, their children do not have a marked excess risk of developing serious infections. The Arthritis & Rheumatology findings are potentially encouraging for women with RA who are or wish to become pregnant.

In North America, infections are the leading cause of mortality in children less than 5 years. There are concerns that tumor necrosis factor inhibitors (TNFis), which are used to treat RA and are transported across the placenta, may cause immunosuppression and compromise young children's ability to fight infections; however, there are limited data on the risk of serious infection in children whose mothers used the drugs during pregnancy.

To investigate, Évelyne Vinet MD, PhD, of the Research Institute of the McGill University Health Centre (RI-MUHC) in Montreal, Quebec, and her colleagues used US claim data from 2011 to 2015 to identify 2,989 offspring of women with rheumatoid arthritis and a randomly selected group of 14,596 control children, matched ≥4:1 for maternal age, year of delivery, and state of residence. The researchers defined TNFi exposure based on at least one filled prescription during pregnancy. Children were followed from birth until 12 months of age, first indication of serious infection, end of commercial insurance eligibility, death, or end of study period (December 30, 2015), whichever came first.

Among offspring of women with RA, 380 (12.7 percent) were exposed to TNFis during pregnancy. The percent of serious infections in those with no TNFi exposure was similar (2.0 percent) to control offspring (1.9 percent), while the percent of serious infections in offspring with TNFi exposure was 3.2 percent. After adjusting for maternal demographics, co-morbidities, pregnancy complications, and medications, however, the investigators were unable to establish an increased risk of serious infections in offspring exposed to TNFis versus both control offspring and offspring of mothers with RA who did not use TNFis.

“Our study provides new evidence to counsel RA women contemplating pregnancy,” said Dr. Vinet. “Within the largest cohort of RA offspring exposed to TNFis ever assembled, we did not observe a marked excess risk for serious infections versus unexposed RA offspring and children from the general population. Our data are potentially reassuring, however, we could not exclude a differential risk according to specific TNFi characteristics, with infliximab potentially resulting in a 3-fold increase in the risk of serious infections compared with other TNFis.”

Dr. Vinet emphasized that until further studies are conducted to address this issue, it is very important to follow current recommendations when treating women during pregnancy. The European League Against Rheumatism recommends discontinuing infliximab and adalimumab before 20 weeks of gestation and etanercept before 31 to 32 weeks to minimize the risk of infections in offspring, while certolizumab can be continued throughout pregnancy.

Additional Information
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