
Module 3: Bipolar Disorder During Pregnancy and Postpartum

Antipsychotics in Pregnancy and Risk of Neurodevelopmental Disorders

Research Update

Mood Disorders in Pregnancy, Postpartum, and Breastfeeding:
A Carlat Review Course

 **ARLAT PUBLISHING**
www.thecarlatreport.com

Sébastien Hardy, PharmD, BCPS

Dr. Hardy has no financial relationships with companies related to this material.

REVIEW OF: [Straub L et al, JAMA Intern Med 2022;182\(5\):522–533](#)

STUDY TYPE: Retrospective cohort study

We sometimes prescribe antipsychotic medications to pregnant women with psychiatric disorders, but might these medications affect children's developmental outcomes?

Antipsychotic drugs readily cross the placenta, but available data about the risk of [congenital malformations](#) in exposed children are generally reassuring (Huybrechts KF et al, *JAMA Psychiatry* 2016;73(9):938–946). However, we know little about neurodevelopmental outcomes following prenatal antipsychotic exposures, particularly for second-generation antipsychotics.

A recent US-based retrospective cohort study examined the risk of neurodevelopmental disorders (eg, ADHD, autism spectrum disorder, learning disability, or intellectual disability) in children following gestational exposure to antipsychotics. The study reviewed databases of publicly and privately insured women from 2000 to 2015. Children were considered exposed if their mothers filled antipsychotic prescriptions after 18 weeks of gestation. Why was the second half of pregnancy chosen? Synaptogenesis—the formation of nerve synapses—begins at this fetal stage.

Exposed (n=10,772) and unexposed (n=3,341,291) children were matched on potential confounders, including age, treatment indications, severity of underlying mental illnesses, adjunctive medications, maternal comorbidities, and socioeconomic status. Exposures were to first-generation and second-generation antipsychotics, with quetiapine being the most dispensed, followed by aripiprazole, risperidone, olanzapine, and haloperidol. Most women took only one antipsychotic during pregnancy, and children were followed up to 14 years.

In the initial, unadjusted analyses, gestational exposure to antipsychotics was linked to an almost twofold increase in the risk of neurodevelopmental disorders, with a hazard ratio (HR) of 1.9. However, after accounting for confounding variables, this increase was no

Full Course Materials Audio and CME Post-Test

www.thecarlatreport.com/pregnancycourse

longer statistically significant, showing an adjusted HR of 1.1. The exception was aripiprazole, which still demonstrated a small yet statistically significant elevated risk for neurodevelopmental disorders.

The extensive scale of this epidemiological study, sourced from nationwide health care utilization databases and featuring long-term follow-up periods, offers valuable insights into the statistical associations related to rare occurrences, such as neurodevelopmental disorders.

Carlat Take

Treatment decisions in pregnancy require careful balancing of risks and benefits. This large cohort study provides reassuring data about neurodevelopmental outcomes in children exposed to second-generation antipsychotic medications during the second half of pregnancy. The increased risk identified with prenatal aripiprazole requires further study before we can conclude whether it should change our prescribing practices.