Study links intrauterine antipsychotic medication exposure to lower scores on infant neuromotor test

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Among 6-month-old infants, a history of intrauterine antipsychotic medication exposure was associated with significantly lower scores on a standard test of neuromotor performance, according to a report published Online First by *Archives of General Psychiatry*.

About two-thirds of women with a history of mental illness give birth. Despite the significant morbidity (illness or disease) associated with maternal mental illness during pregnancy, treatment guidelines are "largely speculative" with little systematic data assessing the safety and efficacy of prenatal psychotropic therapy, the authors write in their study background.

Katrina C. Johnson, Ph.D., and colleagues with Emory University, Atlanta, examined the association of prenatal exposure to antipsychotics, antidepressants and maternal psychiatric illness in 6-month-old infants with adverse neuromotor and attentional outcomes. They conducted a prospective controlled study from December 1999 through June 2008 by examining 309 mother-infant pairs at six months postpartum with pregnancy exposure to antipsychotics (22) antidepressants (202) or no psychotropic agents (85). The neuromotor exam administered was the Infant Neurological International Battery (INFANIB), which tests posture, tone, reflexes and motor skills. The infants' visual response intensity to stimuli also was examined.

"The results from the current study show that 6-month-old infants exposed prenatally to an antipsychotic demonstrated significantly lower scores on a standardized neuromotor screening measure compared with both antidepressant-exposed infants and infants with no psychotropic exposure. Only 19 percent of infants prenatally exposed to an antipsychotic demonstrated normal neuromotor performance," the authors comment.

The researchers note that infant outcomes also were negatively associated with indices of maternal psychiatric illness.

"Future investigations are warranted to disentangle the relative contribution of antipsychotic medications, maternal mental illness, concomitant (associated) medications and the broader psychosocial context in the developmental trajectory of high-risk infants," the authors conclude. "Pending such studies, these data support an additional level of clinical scrutiny in medication selection, treatment planning and risk/benefit discussions for women with illnesses who may warrant antipsychotic pharmacotherapy during gestation."

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