

## RESEARCH NEWS

# Antidepressants in pregnancy are linked to ADHD but not to autism, says study

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Women who take antidepressants while pregnant may be raising the risk of their child developing attention deficit hyperactivity disorder (ADHD) but not autism, a study published in the journal *Molecular Psychiatry* has found.<sup>1</sup>

The US researchers, however, warned that any potential “modest” risk from taking antidepressants should be weighed against the possible consequences of not treating maternal depression or anxiety in each individual patient.

An apparently rapid increase in prevalence of autism spectrum disorder (ASD) over the past decade has increased efforts to identify potentially modifiable risks, although experts believe that much of the liability for autism is inherited and that environmental factors, not yet clearly identified, might add to the risk.

Previous studies<sup>2-4</sup> have had contradictory findings about whether prenatal exposure to serotonergic drugs leads to autism-like qualities in children and whether in utero exposure to antidepressants increases children's autism liability.

A team of researchers from the department of psychiatry at Massachusetts General Hospital in Boston, USA, therefore looked into the subject in more depth to see if other factors might be involved. They studied associations between prenatal antidepressant exposures and the neurodevelopmental disorders in 1377 children with autism, 2243 with ADHD, and a matched group of children without those disorders, drawn from the medical records of a large health system.

The authors found that antidepressant exposure during pregnancy was associated with the risk of autism, but the severity of maternal mental illness also seemed to affect this risk, and the association was no longer significant when they took into account the mother's history of major depression. Conversely, the rate of ADHD was slightly increased in children who were exposed to antidepressants prenatally, even after adjusting for the severity of maternal depression.

Overall, the results showed that the risk of autism previously observed with prenatal antidepressant exposure might be better explained by the risk associated with maternal illness. However, they also showed that such exposure could be modestly associated with the risk of ADHD.

The authors said that clinicians should be careful about changing their prescribing practices or advice until further studies had been carried out to get a more precise estimate of the effects of antidepressants on ADHD risk. They added, “The consequences of failing to treat depression in pregnancy warrant emphasis.”

To discontinue antidepressants during pregnancy could increase the risk of relapse fivefold, they said, and maternal depression during pregnancy was associated with health complications for the mother and child.

The authors concluded, “Decision making about antidepressant utilisation in pregnancy requires that these emerging risks, as well as benefits, be weighed in the context of the individual patient and family.”

Roy Perlis, lead author and a psychiatrist at Massachusetts General Hospital, told *The BMJ*, “I think our results, taken together with some other studies that did not find significant risk, should be reassuring to women who need to take antidepressant medications during pregnancy.

“I would always advise caution in prescribing antidepressants; but we need to keep in mind that, in many cases, the benefits far outweigh the risks. A crucial point is that not adequately treating depression and anxiety in pregnancy can also carry substantial risk.”

Experts reacted to the study with caution. Celso Arango, scientific director of the Spanish Centre for Biomedical Research in Mental Health based in Madrid, said, “From the child's perspective it is likely that the potential harm caused by any increased risk of ADHD or autism would be much less than the potential harm of having a mother [with] depression. This research does not mean that women should stop taking their antidepressants.”

Guy Goodwin, president of the European College of Neuropsychopharmacology, said, “It remains possible, even likely, that the effect observed is due to increased genetic risks of psychiatric disorder in the offspring of the women prescribed antidepressants, rather than the effects of the drugs.”



- 1 Clements CC, Castro VM, Blumenthal SR, Rosenfield HR, Murphy SN, Fava M, et al. Prenatal antidepressant exposure is associated with risk for attention-deficit hyperactivity disorder but not autism spectrum disorder in a large health system. *Molecular Psychiatry* 2014; published online 26 August. doi:10.1038/MP.2014.90.
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- 4 Croen LA, Grether JK, Yoshida CK, Odouli R, Hendrick V. Antidepressant use during pregnancy and childhood autism spectrum disorders. *Arch Gen Psychiatry* 2011;68:1104-12.

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