Antidepressant use during pregnancy and the risk of attention-deficit/hyperactivity disorder in the children: a meta-analysis of cohort studies.

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Abstract

BACKGROUND:
Evidence for the relationship between antidepressant use during pregnancy and the risk of attention-deficit/hyperactivity disorder (ADHD) in the children is conflicting.

OBJECTIVE:
To assess the association between fetal exposure to antidepressant drugs and the subsequent development of ADHD.

SEARCH STRATEGY:
A systematic literature search was conducted in PubMed, EMBASE, PsycINFO, and CINAHL databases to identify relevant cohort studies published from inception until October 2017.

SELECTION CRITERIA:
Cohort studies, identifying children with ADHD diagnosis and linking antidepressant use during pregnancy in their mothers.

DATA COLLECTION:
Two reviewers independently abstracted data and assessed study quality.

MAIN RESULTS:
The literature search identified six relevant cohort studies with association between antidepressant exposure during pregnancy and the risk of ADHD in children (HR = 1.34; 95% confidence interval [CI] 1.14-1.57). However, the association was not statistically significant when the reference group was mothers with psychiatric disorders not treated during pregnancy (HR = 0.96; 95% CI 0.76-1.2; n=2 studies). Moreover, preconception exposure to antidepressants was significantly associated with increased risk of ADHD (HR = 1.82; 95% CI 1.54-2.15; n=3 studies).

CONCLUSIONS:
The significant association between antidepressant exposure during pregnancy and ADHD in the children can be partially explained by confounding by indication. Given the low number of included studies, further studies with prospective designs that use validated measurement and control for important confounders are needed to verify our findings.