Prenatal antidepressant exposure and the risk of attention-deficit hyperactivity disorder in children: A systematic review and meta-analysis.

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Abstract

This systematic review assesses the association between prenatal antidepressant exposure and risk of ADHD in children. Electronic databases were searched up to 25 July 2017. Observational studies examining this association were included in the review and meta-analysis was conducted where appropriate. Eight relevant studies were identified. The seven studies included in the meta-analysis comprised a total of 2,886,502 children. The pooled estimates comparing prenatal exposure to non-exposure showed an adjusted rate ratio (aRR) of 1.39 (95%CI 1.21-1.61). Similarly, an increased risk was found comparing previous antidepressant users and non-users: aRR = 1.56 (95%CI 1.25-1.95). The relationship between maternal psychiatric conditions and ADHD in children yielded an aRR of 1.90 (95%CI 1.47-2.45). Three studies conducted sibling-matched analyses with aRR of 0.94 (95%CI 0.75-1.16). These data suggest that the observed association between prenatal use of antidepressants and risk of ADHD in offspring can be partially explained by confounding by indication because the results from sibling-matched analyses do not support an increased risk of ADHD in discordant exposed siblings.