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Prenatal alcohol exposure and autistic spectrum disorders--a population-based prospective study of 80 552 children and their mothers.

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Abstract

BACKGROUND: To examine whether maternal alcohol intake, including binge drinking (intake ≥ 5 drinks, equivalent to 60 g pure ethanol on a single occasion), is associated with autistic spectrum disorders (ASD) and infantile autism. **METHODS:** Participants were 80 552 children and their mothers enrolled in the Danish National Birth Cohort from 1996 to 2002. Alcohol consumption was obtained by self-report during pregnancy. Information on ASD was obtained from the Danish Central Psychiatry Register. Follow-up ended on February 2008. Data were analysed by means of Cox regression. **RESULTS:** In total, 401 children were diagnosed with ASD and 157 with infantile autism. No association was found between average alcohol consumption and ASD or infantile autism, respectively. For binge drinking, the adjusted hazard ratio (HR) for ASD was 0.72 [95% confidence interval (CI): 0.53-0.97] among women who binge drank once during pregnancy compared with women who did not binge drink. The corresponding HR for infantile autism was 0.61 (95% CI: 0.36-1.02). However, the HR for ASD was 0.84 (95% CI: 0.51-1.36) when restricting the analysis to first-time pregnancies conceived within 6 months of trying. No estimate was made for infantile autism due to low number of cases. No association was seen for more than one binge episode and for the timing of binge drinking. **CONCLUSION:** Our findings do not support that a low prenatal alcohol exposure increases the risk of ASD or infantile autism. The lower risk for women who binge drank once during pregnancy is most likely non-causal.

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