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Maternal alcohol drinking during pregnancy associated with risk for childhood conduct problems

Maternal alcohol drinking during pregnancy appears to be associated with conduct problems in children, independently of other risk factors, according to a report in the November issue of *Archives of General Psychiatry*, one of the JAMA/Archives journals.

Previous research has linked maternal drinking during pregnancy to several problems in offspring, including conduct problems, criminal behavior, attention and impulsivity problems and alcohol disorders, according to background information in the article. However, new questions have been raised about the strength of the evidence, as some researchers have suggested that certain family processes or genetic risk factors could be associated with both maternal drinking and childhood problems.

Brian M. D'Onofrio, Ph.D., of Indiana University, Bloomington, and colleagues analyzed data from 4,912 mothers who enrolled in a large national survey in 1979. Yearly through 1994 and then every other year through 2004, the women answered questions about their substance use during each of their pregnancies. Beginning in 1986, 8,621 of their offspring were also assessed every other year between ages 4 and 11 for behavioral problems.

For each additional day per week that mothers drank alcohol during pregnancy, their children had an increase in conduct problems. This association remained even after factoring in other variables such as the mothers' drug use during pregnancy, education level or intellectual ability.

Children whose mothers drank alcohol during pregnancy also had more attention and impulsivity problems than unrelated children whose mothers did not drink. However, siblings whose mother drank more frequently during one pregnancy had the same level of difficulty with attention and impulsivity.

These results are consistent with prenatal alcohol exposure exerting an environmentally mediated causal effect on childhood conduct problems, but the relation between prenatal alcohol exposure and attention and impulsivity problems is more likely to be caused by other

factors correlated with maternal drinking during pregnancy," they continue. These other factors may include the use of tobacco, illegal drugs and other substances in addition to alcohol.

The findings thus support a strong inference that prenatal alcohol exposure causes an increased risk of offspring conduct problems through environmental processes," the authors conclude. Therefore, prevention efforts should continue to target alcohol consumption during pregnancy.

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