Gestational Diabetes, Low SES Ups ADHD Risk

There was a ninefold increased risk of ADHD diagnosis in 6-year-olds.

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FROM THE ANNUAL MEETING OF THE AMERICAN ACADEMY OF CHILD & ADOLESCENT PSYCHIATRY

NEW YORK – Children born to mothers with gestational diabetes during pregnancy had a significantly increased risk of developing attention-deficit/hyperactivity disorder when they reached 6 years old, based on a study with 216 children.

The risk was even greater in children of families with low socioeconomic status. The combined effect of gestational diabetes and low socioeconomic status was linked with a statistically significant, ninefold increased rate of attention-deficit/hyperactivity disorder (ADHD) in children when they reached age 6 years, Alexandra S. Jordan reported in a poster at the meeting.

The findings "raise the possibility that manifestations of ADHD are not simply genetically mediated. Rather, susceptibility may increase as a function of the uterine environment (as with gestational diabetes) and may be further aggravated as a result of socioeconomic hardship during childhood," Ms. Jordan and her associates reported in their poster.

Prior published reports had identified both gestational diabetes and low socioeconomic status as risk factors for the subsequent development of ADHD in young children.

But in this study, when the researchers looked at the impact of both factors together, "something bizarre happened." The risk increased "way beyond the expected impact," Ms. Jordan said in an interview. She and her colleagues do not currently have an explanation for this apparent synergistic interaction.

The study assessed 216 unselected children for ADHD symptoms at age 4 years and for a diagnosis of ADHD at age 6 years. The mothers of 21 of the children had gestational diabetes during pregnancy, and this subgroup had a 2.19-fold increased risk for having a diagnosis of ADHD at age 6 years, compared with the children born to mothers who never had gestational diabetes.

In addition, 104 of the children came from low socioeconomic status households, and these children had a 2.05-fold increased rate of having ADHD, compared with the other children from higher socioeconomic families, said Ms. Jordan, a researcher in the department of counseling and clinical psychology at Columbia University in New York.

The group included nine children whose mother had gestational diabetes and who came from low socioeconomic family.

In this subgroup, the prevalence of the ADHD diagnosis at age 6 years was 9.23-fold higher than it was for the children whose mothers did not have gestational diabetes and who came from families with higher socioeconomic status.

The apparent effect of gestational diabetes and low socioeconomic status on ADHD prevalence remained statistically significant after researchers adjusted for whether one or both parents had ADHD.

"These findings may be useful in educating women considering pregnancy, particularly those in low socioeconomic environments, about the potential lingering effects of gestational diabetes on offspring into childhood," the researchers said in their poster.

"This information may encourage women to control gestational diabetes symptoms during pregnancy." In addition, it may help "educate health care providers on the importance of assessment and control of gestational diabetes symptoms throughout pregnancy and on ADHD's etiologic link to gestational diabetes." The findings might also help "target early interventions to those low socioeconomic status families who are most vulnerable" to this interaction with gestational diabetes, they said. ■

VITALS

Major Finding: Six-year-old children from low socioeconomic families and born to mothers who had gestational diabetes had a ninefold increased rate of diagnosis for attention-deficit/hyperactivity disorder, compared with children from higher socioeconomic families whose mothers did not have gestational diabetes.

Data Source: Multicenter study of 216 children, 9 of whom came from low socioeconomic families and were born to mothers who had gestational diabetes.

Disclosures: Ms. Jordan had no relevant financial disclosures.

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