DBPNet
Developmental Behavioral Pediatrics Research Network

FAMILY RESEARCH SUMMARY:

The Maternal Immune System & Autism

Autism (ASD) causes social, communication, and behavior problems. One out of every 44 children in the United States have ASD. The cause of ASD is not known. In some cases, the body's system for fighting infections (also known as the immune system) might play a role. The immune system makes antibodies to fight infection, but sometimes antibodies fight the body instead of the infection. If this happened when a mother was pregnant, the antibodies could affect the fetus. This study looked at how common a specific type of antibody was in mothers who had children with ASD.

The study was done at two sites in the Developmental Behavioral Pediatrics Research Network DBPNet. It included 68 mothers of children with ASD. The children were 2 to 12 years old. Mothers provided blood and filled out forms about their child's behavior.

Overall, 16 of 68 (23%) of blood samples had antibodies possibly related to ASD; 21% at one site and 26% at the other site. Children of mothers with these antibodies exhibited more severe ASD behaviors. Children with antibodies did not have a lower IQ, daily living skills, or more behavior problems.

About 1 in 4 mothers of children with ASD have antibodies possibly related to ASD. Mothers with these antibodies may have children with more severe ASD. This study does not prove that the antibodies are a cause of ASD. It did not determine if mothers of children who do not have ASD also have these antibodies.

Reference:

Angkustsiri K, Fussell JJ, Bennett A, Schauer J, Ramirez-Celis A, Hansen RL, Van de Water J. Pilot Study of Maternal Autoantibody-Related Autism. *J Dev Behav Pediatr*. 2022 Oct-Nov 01;43(8):465-471. PMID: 35943360

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