Medical Xpress

Screening very preterm infants for autism at 18 months often inaccurate

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Extremely premature infants who screen positive for autism spectrum disorder (ASD) at 18 months of age may not actually have autism. Rather, they may fail screening tests due to an unrelated cognitive or language delay, according to research to be presented Sunday, May 1, at the Pediatric Academic Societies (PAS) annual meeting in Denver.

An estimated one in 110 U.S. children has ASD, a group of complex developmental brain disorders that affect behavior, social skills and communication. The American Academy of Pediatrics (AAP) recommends that pediatricians screen all children for ASD at 18-24 months of age, and those who fail the screening test should be referred for a formal assessment.

Based on the AAP guidelines, many neonatal intensive care unit follow-up clinics that monitor former extremely preterm infants have instituted this screening protocol. However, it is not known how accurate early screening is in identifying ASD in this high-risk population.

Researchers, led by Bonnie E. Stephens, MD, FAAP, assistant professor of pediatrics at Brown University's Alpert School of Medicine and neonatologist/developmental and behavioral pediatrician at Women & Infants Hospital of Rhode Island, suspected that many preterm infants who screen positive for ASD at 18 months do not have ASD but are failing these screens due to a cognitive or language delay, both of which are common in extremely preterm infants at 18 months.

To test their hypothesis, the investigators screened infants born at their hospital before 28 weeks' gestation with three measures, one of which was designed specifically for use in high-risk populations such as preterm infants. They sought to determine the rate of false-positive screens for ASD at 18 and 30 months of age and to explore the relationship between a positive screen and cognitive and language delay.

A total of 152 infants were screened for ASD at 18 months (age corrected for prematurity), and 116 infants were screened at 30 months corrected age.

Results showed that 18 percent screened positive for ASD at 18 months, while 10 percent screened positive at 30 months. Only 3 percent of infants had positive results on all three screens at either point in time, and all of the infants who screened positive for ASD on all three screening tests at 30 months were later diagnosed with ASD.

In addition, a positive screen at 18 or 30 months was associated with cognitive and language delay.

"While these findings have important implications, further work is needed," Dr. Stephens said. "To determine which of these infants actually have ASD, a study that includes a formal diagnostic assessment on all children with a failed screen is needed."

Dr. Stephens and her colleagues are seeking funding to support a multicenter study of more than 500 preterm children. "This will allow us to determine the true rate of ASD in this population, the rate of false-positive screens at 18 and 30 months, the optimal time to screen, and the optimal ASD screening tool for the extremely preterm population."

More information: To view the abstract, go to www.abstracts2view.com/pas/vie … .php?nu=PAS11L1_1058

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