Researchers Find Drug Use in Mothers of Babies with NAS - But Also in Control Group

Researchers conducting a study of newborns experiencing symptoms of drug withdrawal knew the infants' mothers would test positive for substance use. But in the course of their study they had another, surprising finding: They discovered that 1 in 4 women enrolled in the "drug-free" comparison group, whose infants were not diagnosed with neonatal abstinence syndrome (NAS), also tested positive for illicit drug use.

The study abstract, "Infants with Neonatal Abstinence Syndrome and Their Drug Dependent Mothers Compared to Matched Controls: We have a drug problem," will be presented on Friday, Sept. 15, at the American Academy of Pediatrics 2017 National Conference & Exhibition in Chicago.

Researchers at Hutzel Women's Hospital, Detroit, Michigan reviewed the medical charts of infants born with symptoms of drug withdrawal from November 2011 to December 2016. For a control group, they also reviewed the charts of babies born right before and after each of the babies diagnosed with NAS. In total, they analyzed data for 222 babies with NAS and 490 without.

Not unexpectedly, the researchers found that 100 percent of the mothers of infants with NAS tested positive for substance use, said Pallavi Karunakaran, MD, an author of the abstract and pediatric resident at Children's Hospital of Michigan. Of these women, 81 percent tested positive for using opioid medications (including methadone, commonly used to treat opioid addiction, among 70 percent of them). In addition, these mothers also tested positive for heroin (42 percent), cocaine (29 percent) and marijuana (26 percent), as well as other substances.

"Alarmingly, however, more than 26 percent of mothers in the control group also tested positive for substance use," Karunakaran said. In this group, the most common drugs detected were marijuana (20 percent), opioids (4 percent), and cocaine (1.2 percent).

The study found that infants born to drug dependent mothers who developed neonatal abstinence syndrome had an earlier gestational age, lower birth weight, and longer hospital stay. Nearly 60 percent of the babies with neonatal abstinence syndrome were male, and 80 percent of them were Caucasian.

The researchers said the findings suggest a substantial number of pregnant women are not accessing drug addiction treatment, placing their babies' health at risk from prenatal exposure.

"We are faced with a national drug problem of epidemic proportions and pediatricians care for some of its unwitting victims - the vulnerable newborn," said Eugene Cepeda, MD, another author of the abstract and pediatric and a neonatal-perinatal pediatrician at the hospital. "We need to be vigilant, compassionate, and effective in our management of the infant and recognize that many women regardless of race, age, and economic status can be affected by this growing drug epidemic," he said.

Dr. Karunakaran will present the abstract, available at http://aapexperience.org/aap-conference-planner/, on Friday, Sept. 15, between 6 p.m. and 8 p.m. at the Marriott Marquis Chicago, in the Great Lakes A-D meeting space.

For more coverage of the AAP National Conference & Exhibition visit http://bit.ly/2vm1VUU and follow AAPNews on Twitter and Facebook.