Exploring the Link Between Maternal Asthma and Adverse Perinatal Outcomes

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Rates of asthma continue to rise in the general population, which translates to increased rates among women who are pregnant. When this happens, asthma not only affects the mother but the fetus as well. However, the specific effects are unclear. With that in mind, Dr Vanessa Murphy, postdoctoral research fellow school of medicine and public health at the University of Newcastle in Australia, and colleagues conducted a meta-analysis to determine if maternal asthma is associated with adverse perinatal outcomes.

Murphy and colleagues identified cohort studies that were published between 1975 and 2009 and had at least one perinatal outcome for pregnant women with and without asthma. To do this, the researchers searched electronic databases for terms asthma, wheeze, pregnan*, perinat*, or obstet*. Forty publications with 1,637,180 total subjects were included.

The researchers found that maternal asthma was indeed associated with adverse perinatal outcomes. Specifically, infants born to women with asthma had an increased risk of low birth weight (relative risk = 1.46); the researchers estimated that infants born to women with asthma weighed an average of 0.2 lbs less than their counterparts born to women without asthma. Further, infants born to women with asthma had an increased risk of being small for gestational age, and women with asthma had greater risk for preterm delivery and preeclampsia as compared to those women without asthma (Figure).

Figure. Relative risks associated with maternal asthma.

The results of this study emphasize the importance of monitoring pregnant women with asthma to help ensure the best outcomes possible. “The findings are significant and call for women with asthma to be more closely-monitored during pregnancy,” Dr Christina Chambers, professor of pediatrics at the University of California, San Diego, program director of the California Teratogen Information Service Pregnancy Health Information Line, and coauthor of the study, said in a statement to the press. “It would be advisable for women on regular medications for asthma or having frequent symptoms to be monitored at least monthly during the course of their pregnancies.”

Still, the study may spark more questions than it answers. Coauthor Dr Michael Schatz, asthma
specialist at Kaiser Permanente Medical Center in San Diego, explained that the study does not shed light on the mechanisms of increased risk. “Most information suggests it is only uncontrolled asthma that increases the risk, but more information on other potential factors, such as asthma medications, is needed,” he told the press.

More Information

Maternal Asthma Increases Risk of Preeclampsia
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