

New test assesses gestational diabetes risk early in pregnancy

29 May 2013

Levels of a biomarker in a pregnant woman's blood can help physicians gauge her risk of developing gestational diabetes during the first trimester, according to a recent study accepted for publication in The Endocrine Society's *Journal of Clinical Endocrinology & Metabolism (JCEM)*.

[Gestational diabetes](#) is a form of [diabetes](#) that can develop during pregnancy, often during the second trimester. The condition causes glucose levels in the bloodstream to be higher than normal. Early diagnosis and treatment can help the woman manage the condition. If left untreated, high blood glucose in the mother increases the risk of jaundice, breathing and hypoglycemia problems in the newborn. Uncontrolled gestational diabetes also can increase the risk of premature delivery and preeclampsia, or pregnancy-induced high blood pressure.

"Although it is important to quickly intervene in cases of gestational diabetes, often only women who have risk factors like a family history or obesity are screened early in pregnancy," said one of the study's authors, Atsuhiko Ichihara, MD, PhD, of Tokyo Women's Medical University. "Women who don't have the traditional risk factors may not be diagnosed until the second trimester. The method identified in this study offers every [pregnant woman](#) the opportunity to know her risk early on."

The prospective cohort study tested the blood of 716 pregnant women during the [first trimester](#) to measure their levels of the soluble (pro)renin receptor, or s(P)RR. Of the participants, 44 women developed gestational diabetes.

Researchers found pregnant women with elevated s(P)RR levels were more likely to be diagnosed with gestational diabetes. Women who had the highest s(P)RR levels were 2.9 times more likely to develop gestational diabetes than women who had the lowest levels.

"In addition to gestational diabetes, recent studies have found elevated s(P)RR levels are associated with the birth of larger babies and high blood pressure in late pregnancy," Ichihara said. "The evidence suggests the [biomarker](#) is important in the interaction between mother and fetus during pregnancy."

More information: The article, "Prediction of Gestational Diabetes Mellitus by Soluble (Pro)Renin Receptor during the First Trimester," will appear in the June 2013 issue of *JCEM*.

Provided by The Endocrine Society

APA citation: New test assesses gestational diabetes risk early in pregnancy (2013, May 29) retrieved 18 September 2020 from <https://medicalxpress.com/news/2013-05-gestational-diabetes-early-pregnancy.html>

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