

NEWS

Gestational Diabetes Increases Risk of Ischemic Heart Disease

Screening after pregnancy should extend beyond blood sugar and include checks of blood pressure, lipids, and smoking status, say investigators.



By [Michael O'Riordan](#) January 16, 2018



Women diagnosed with gestational diabetes are not only at an increased risk of developing type 2 diabetes in the future but also have higher risks of hypertension and ischemic heart disease, according to a new retrospective cohort study.

The findings confirm the importance of postpartum screening for diabetes as well as for cardiovascular risk factors in women diagnosed with gestational diabetes and the importance of making appropriate lifestyle changes to reduce the future risk of ischemic heart disease, say researchers.

“Physicians tend to look towards the outcome of the mother and baby during pregnancy,” senior investigator Krishnarajah Nirantharakumar, MD (University of Birmingham, England), told TCTMD. “Once the pregnancy resolves, they are well aware the women can develop diabetes, but there is no recommendation or guidance on whether they should also screen for other cardiovascular risk factors, like hypertension, dyslipidemia, or smoking status.”

In the United Kingdom, the National Institute for Health and Care Excellence (NICE) recommends annual screening for type 2 diabetes in women diagnosed with gestational diabetes. However, postpartum screening for diabetes tends to drop off over time, said Nirantharakumar, who noted that 60% of women were screened for type 2 diabetes mellitus in the first year in their study and less than 40% were screened at year two. Moreover, less than half of the women with gestational diabetes had their blood pressure checked in the second year and few had their lipid levels measured.

The new study, published January 16, 2018, in PLoS Medicine, includes 9,118 women diagnosed with gestational diabetes and 37,281 healthy controls matched by age and timing of pregnancy. The women with gestational diabetes tended to come from economically disadvantaged areas, were more likely to be overweight or obese, and were more likely to have been diagnosed with hypertension. They were less likely to be smokers, however.

After a median follow-up of 2.9 years, women with gestational diabetes were more than 20 times more likely than the controls to develop type 2 diabetes (incidence rate ratio [IRR] 21.96; 95% CI 18.31-26.34). These women also had an 85% higher risk of hypertension (IRR 1.85; 95% CI 1.59-2.16) and were nearly three times more likely to be diagnosed with ischemic heart disease (IRR 2.78; 95% CI 1.37-5.66). Gestational diabetes was not associated with stroke risk in this analysis.

Gestational diabetes is a known risk factor for developing type 2 diabetes, but several studies, including this one, suggest it also increases the risk of adverse cardiovascular events. For example, in an [analysis of the Nurses' Health Study II](#) published in October 2017, a history of gestational diabetes was associated with a nearly 50% higher risk of cardiovascular disease.

To TCTMD, Nirantharakumar said the risk of cardiovascular disease associated with gestational diabetes might be related to the subsequent risk of type 2 diabetes, but he does not believe this is the only reason. “Even if they don’t develop diabetes, they are still at an increased risk [of ischemic heart disease],” he said. “One reason is that they tend to gain more weight following pregnancy than women who don’t develop gestational diabetes. Also, their lifestyle is not as ideal as we would like it to be.”

Given that the NICE guidance is already in place, Nirantharakumar said physicians should continue to be vigilant in screening for type 2 diabetes after pregnancy and emphasized that the risk is not confined to the 2- or 3-year period after birth. Secondly, physicians should use the screening visit to also measure blood pressure and lipids, and to assess the women’s smoking status. For women with gestational diabetes, the goal should be weight loss if they are overweight or obese (and preventing weight gain if not), healthy eating, regular exercise, and smoking cessation, added Nirantharakumar.

Sources

Daly B, Toulis KA, Thomas N, et al. Increased risk of ischemic heart disease, hypertension, and type 2 diabetes in women with gestational diabetes mellitus, a target group in general practice for preventive interventions: a population-based cohort study. PLoS Med. 2018;Epub ahead of print.

Disclosures

Nirantharakumar reports no relevant conflicts of interest.