



EDITORIAL

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Diabetes, Women, and the ObGyn

The article on gestational diabetes mellitus (GDM) in last month's issue (*The Female Patient*. 2011;36[4]:24-28) should remind us that diabetes mellitus is a significant problem in the provision of care to women. Most importantly, as health care providers we have the opportunity, including a long time frame, to intervene and hopefully assist women in modifying their risk factors for this disorder.

This is particularly true for type 2 diabetes, which is characterized by elevated blood glucose, insulin resistance, and impairment of insulin secretion. A case in point is women who have had GDM. As many as 20% of these women will have some impairment of their glucose tolerance in the postpartum period, which emphasizes the need to perform a 2-hour 75-g oral glucose tolerance test on all women with GDM at 6 to 12 weeks after delivery.

A recent meta-analysis involving 20 cohort studies indicated that women who had GDM had a relative risk (RR) for type 2 diabetes of 7.43 (95% CI, 4.79-11.51), compared to women without glucose intolerance during pregnancy. This relative risk increased as time went by, reaching 9.34 after an interval of more than 5 years since the pregnancy.

How does this equate to an absolute risk? Based on a Canadian population-based study of about

22,000 women in Ontario who had had GDM, the frequency of type 2 diabetes reached 13.1% at 5 years postpartum and 18.9% by 9 years postpartum. For comparison, the rate of type 2 diabetes in women who were normoglycemic with their previous pregnancy was 2%.

For women who have had GDM, as well as others with risk factors for type 2 diabetes, there is some evidence that lifestyle interventions

weight-reduction and exercise group versus a control group was 3.5 kg after 2 years. More importantly, the intervention group had an incidence of type 2 diabetes of 11%, compared to 23% in the control group.

In the Diabetes Prevention Trial published in 2002, 3 groups of obese patients at high risk for diabetes were compared: those on a "lifestyle intervention" (intense

There is some evidence that lifestyle interventions can be effective in delaying the onset of diabetes and perhaps even reducing the risk for cardiovascular complications for women who have had GDM, as well as others with risk factors for type 2 diabetes.

can be effective in delaying the onset of diabetes and perhaps even reducing the risk for cardiovascular complications. Obesity is a major risk factor for type 2 diabetes. For example, among women who are obese and who have had GDM, at least 50% will develop type 2 diabetes. Lifestyle preventive strategies that have been shown to be effective include weight loss and exercise.

In a 2001 Finnish study of 522 patients (mean age, 55; mean BMI, 33), the mean weight loss in a

monitored diet and exercise program), those receiving metformin and information on diet and exercise, and a group receiving information on diet and exercise. After about 3 years of follow-up, only 14% of those on the lifestyle intervention developed diabetes, compared to 22% and 29% in the metformin and information-only groups, respectively.

An exercise program can independently also reduce the risk for diabetes. For example, a meta-analysis of 10 prospective cohort

studies indicated that moderate exercise reduced the risk for type 2 diabetes by about 30% [RR 0.69 (95% CI, 0.58-0.83)]. This effect may occur despite other interventions, since the benefit persisted when the data were adjusted for BMI.

These findings have obvious implication for our practices. Clearly, all women at risk for diabetes should be counseled regarding the value of diet and exercise in the maintenance of ideal body weight. In particular, young women who develop GDM and are overweight or obese should be informed of the risks for type 2 diabetes. In addition, they need to know that type 2 diabetes is associated with an increased risk for cardiovascular disease, a risk that is higher in women than in men. Further, adopting a healthy lifestyle at this time will

also have a positive influence on their children.

Finally, it should be noted there is continuing interest in research of pregnant women with GDM or at significant risk for GDM to see if interventions such as exercise in addition to diet will improve outcomes. Randomized clinical trials of women with mild GDM have shown improvement in clinical outcomes, including reduced birth weight and less preeclampsia, when they were treated with diet and exercise.



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SUGGESTED READING

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