

100-g Glucose Test Finds More Gestational Diabetes

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OTTAWA — The value of a 75-g oral glucose tolerance test for diagnosing gestational diabetes was called into question when it was compared with a 100-g oral glucose tolerance test in a randomized study that involved more than 1,000 women.

Although the results failed to support the study's primary hypothesis—that the 100-g oral glucose tolerance test (OGTT)

would be more effective than the 75-g test for triggering the management steps that would prevent macrosomia—the findings did show that significantly fewer women were diagnosed with gestational diabetes by the 75-g test, compared with the 100-g test, Dr. B. Anthony Armson said in a poster presentation at the annual clinical meeting of the Society of Obstetricians and Gynaecologists of Canada.

The World Health Organization has endorsed the 75-g test for diagnosing gesta-

tional diabetes, as has the Canadian Diabetes Association, said Dr. Armson, a professor of ob.gyn. at Dalhousie University in Halifax, N.S. The American Diabetes Association recommends using either the 75-g or 100-g test, whereas the American College of Obstetricians and Gynecologists exclusively supports the 100-g test.

The study enrolled women with singleton pregnancies at two tertiary and six secondary hospitals in Nova Scotia during December 2001 to January 2005. All of the

participants were identified at risk for gestational diabetes, with a positive result in a 50-g glucose challenge test that was administered during week 24-28 of gestation.

The women were randomized to definitive diagnosis with either the 75-g or 100-g OGTT. The average gestational age at the time of diagnosis was just under 28 weeks.

The study's design did not specify how women who were diagnosed with gestational diabetes or impaired glucose tolerance were to be managed, but Dr. Armson and his associates assumed that most women with a positive diagnosis received the standard management approach. This involves counseling women about the risks of macrosomia and diabetes, and to advise them to make dietary changes to control their blood sugar level. The efficacy of diet would be monitored by measuring blood sugar at least weekly in the hospital, and ideally daily at home with both fasting and postprandial readings taken. Women who failed to maintain adequate control by diet alone would begin treatment with insulin.

"It might have been better if we had specified a protocol for managing women with gestational diabetes [for] everyone," Dr. Armson said in an interview.

At term, the incidence of macrosomia (defined as a newborn at or above the 95th percentile for weight) was 15% in 574 women who had undergone the 75-g OGTT, and 12% in the 550 women who had received the 100-g OGTT. The relative risk of macrosomia was 24% higher among the women who had the 75-g test, but this result—the study's primary end point—was not statistically significant, he said.

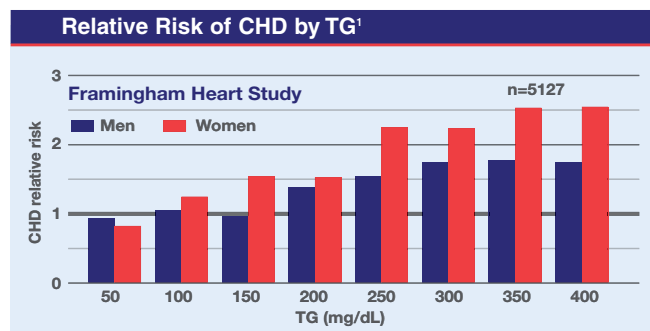
However, the 100-g OGTT was linked to a significant cut in the rate of gestational hypertension (9% of women who had the 100-g test, compared with 14% of those who had the 75-g test), and to a significantly reduced need for forceps delivery. The 100-g test also diagnosed significantly more cases of gestational diabetes (24% of patients using the 100-g test, and 14% with the 75-g test). The women in the two groups were closely matched in their demographic and clinical features, suggesting that the difference in diagnosis rates was primarily the result of a difference in the tests' diagnostic sensitivity. ■



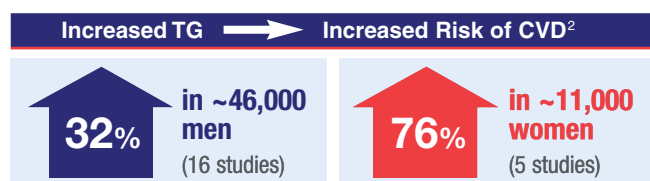
What TG means to a woman's heart

Elevated Triglycerides Make a Difference in Women's Risk of CHD

While great attention and clinical efforts have been directed toward LDL-C-lowering, the Framingham Heart Study 30-year follow-up clearly showed that elevated triglycerides (TG) are also associated with an increased relative risk of coronary heart disease (CHD)—especially in women.¹



In addition, meta-analyses demonstrated that every 1 mmol/L (89 mg/dL) increase in TG increased cardiovascular disease (CVD) risk by:²



CHD is the #1 Killer of Women

The effect of elevated TG in women is important to keep in mind in view of the fact that CHD is the single leading cause of death among American women, claiming nearly 500,000 lives each year.³ Menopausal women are particularly at risk, with CHD rates 2 to 3 times those of women the same age who are premenopausal.³

CHD Risks With Diabetes or Metabolic Syndrome* in Women: Role of TG and HDL-C

Of the estimated 16 million Americans with diabetes, more than half are women.⁴ In women, diabetes is a powerful risk factor for CHD, increasing CHD risk 3-fold to 7-fold compared to a 2-fold to 3-fold increase in men.⁵ It has also been shown that metabolic syndrome is associated with a 2-fold risk of CHD mortality in women.⁶ **It is important to note that the most common pattern of dyslipidemia in patients with type 2 diabetes is elevated TG levels and decreased HDL-C levels.⁷**

*At least 3 of the 5 criteria: abdominal obesity with waist circumference >102 cm in men and >88 cm in women; triglycerides ≥150 mg/dL; HDL-C <40 mg/dL in men and <50 mg/dL in women; blood pressure ≥130/85 mmHg; fasting glucose ≥110 mg/dL.⁸

More Aggressive Guidelines for TG and HDL-C

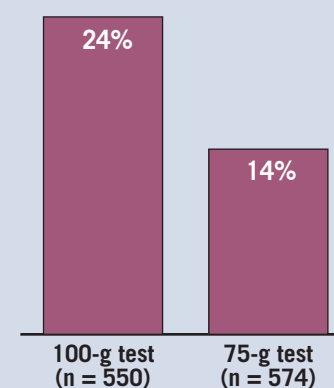
While LDL-C lowering is recognized as the primary lipid target to reduce CHD morbidity and mortality, it does not remove all risk.⁹ Recent data has shed more light on the role of increased TG and decreased HDL-C in CHD risk. It is critical that these lipid abnormalities be considered and managed, in addition to LDL-C. In fact, the current National Cholesterol Education Program (NCEP) guidelines recommend more aggressive TG and HDL-C target goals.⁸ The American Heart Association (AHA) and American Diabetes Association (ADA) recommend similar aggressive goals for TG (<150 mg/dL) and HDL-C (>50 mg/dL) in CVD prevention for women.^{10,11}

You Can Help Make a Difference

A majority of women are still not aware of the substantial CHD risks posed by abnormal lipid levels.¹² As a physician, you can help make a difference by raising your female patients' awareness of these issues, and by helping them achieve optimal lipid levels, as recommended by the NCEP, the AHA and the ADA.

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Rate of Identified Cases Of Gestational Diabetes



Note: Based on a study of women with singleton pregnancies identified as at risk for gestational diabetes.
Source: Dr. Armson