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New criteria for interpretation of the 75 g oral glucose tolerance test in pregnancy.

[Nasrat HA](#), [Sabbagh SA](#), [Salleh M](#), [Ardawi M](#).

Department of Obstetrics and Gynecology, King Abdulaziz Univeristy Hospital, Jeddah, Saudi Arabia.

Abstract

A 75 g oral glucose tolerance test (OGTT) was performed on 135 high-risk pregnant patients. When the current World Health Organization (WHO) criteria for the diagnosis of gestational-glucose tolerance were applied, 88 patients were considered normal, 11 had gestational diabetes, and 36 patients had impaired-glucose tolerance, respectively. The plasma glucose, insulin, and C-peptide levels during the OGTT were further studied in the 88 patients (who had normal results). Two metabolically distinct groups were identified; a group (n = 53) with a 2-hour plasma glucose less than or equal to 6.6 mmol/L (118.8 mg/dL), had a normal insulin and C-peptide pattern, and a second group (n = 35) who had 2-hour plasma glucose greater than 6.6 mmol/L displayed a glycemic, insulin, and C-peptide pattern similar to that of patients with gestational diabetes mellitus. The risks of macrosomic babies and operative delivery were significantly greater in the latter group. These results suggest that in our pregnant population, a group of patients with impaired glucose tolerance will be under-diagnosed using the current WHO criteria. Based on our results new criteria for gestational glucose intolerance are suggested for our population.