Is glucose tolerance test an appropriate predictive marker in screening of gestational diabetes mellitus?

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Abstract

Aim: Gestational diabetes mellitus (GDM) is defined as any degree of glucose intolerance developed during pregnancy it is a significant danger to both fetus and the pregnant woman, so it should be diagnosed as soon as possible to reduce its related maternal and fetal complications. An early diagnosis highly depends on appropriate screening tests. The purpose of this study is to evaluate the sensitivity of glucose tolerance test in the screening of Gestational diabetes mellitus(GDM). Material and Method: This study was conducted on 460 pregnant women between 24 and 28 weeks of gestations. All the pregnant women underwent 50-g glucose challenge test as our routine screening protocol. Pregnant women with a positive GCT underwent 3-hour 100-g OGTT within seven days. Pregnant women who had normal GTT were followed up with FBS and 2-hour blood sugar in 2 weeks later. The FBS value of 105 mg/dl and the 2hour blood sugar value of 120 mg/dl are accepted as the threshold value for GDM). Results: Based on FBS, the sensitivity of OGTT in the diagnosis of GDM is 66.67%, and due to adverse effects of high glucose on both mother and fetus, this is not a good screening test, and we have to find a better way for screening of GDM. Discussion: We found that patients with abnormal GCT and normal OGTT results are at risk of GDM and maternal and fetal complications. Finally, we should consider the group of women with an abnormal GCT result, but normal OGTT result, to be a high-risk pregnancy group.

Keywords

Diabetes Mellitus; Sensitivity, Predictive Marker; GCT; OGTT