



Table: The sensitivity, specificity, PPV and NPV of GCT value, at previous pregnancy, divided to 10 percentiles, and their prediction of GDM at index pregnancy.

GCT (mg/dl)	Sensitivity	Specificity	PPV	NPV
63.7	0.990	0.058	0.022	0.996
75.1	0.973	0.165	0.024	0.997
82.0	0.948	0.272	0.027	0.996
88.0	0.928	0.374	0.031	0.996
93.0	0.896	0.462	0.035	0.995
99.5	0.840	0.572	0.041	0.994
107.0	0.787	0.676	0.049	0.993
114.8	0.669	0.772	0.059	0.991
125.4	0.527	0.862	0.076	0.988
147.7	0.246	0.955	0.104	0.983

404 Third trimester polyhydramnios as a first manifestation of gestational diabetes- clinical characteristics and risk factors

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OBJECTIVE: Being a common complication of GDM, newly diagnosed polyhydramnios often prompts clinicians to perform oral glucose tolerance test (OGTT), despite normal screening test result.

However, the clinical yield of performing OGTT due to late polyhydramnios has not been determined. Thus, we aimed to determine the prevalence and implications of GDM diagnosis in pregnancies complicated by third trimester polyhydramnios and a prior normal glucose challenge test (GCT).

STUDY DESIGN: A retrospective cohort study of all pregnancies complicated by third trimester polyhydramnios at a tertiary center between 2014-2017. Included patients had a previous normal GCT result and polyhydramnios (AFI \geq 240mm). Participants underwent 100g OGTT and targeted ultrasound anomaly scan. Exclusion criteria included multiple gestation and fetal anomalies. Pregnancies were allocated into two groups according to OGTT results: (1) \geq 1 abnormal value on OGTT (2) normal OGTT

RESULTS: Abnormal OGTT was detected in 13 out of 110 pregnancies (11.8%). Patients with abnormal OGTT scored higher on GCT (118 vs 106, $p=0.02$) and had a lower gestational weight gain (GWG) (10.5 vs 14.8, $p=0.03$). A trend towards a higher maternal age was observed in the study group (35.9 vs 32.6, $p=0.05$). Both groups were comparable in maternal BMI ($p=0.29$), past macrosomia rate ($p=1$) and past GDM rate ($p=0.12$). Median gestational age at polyhydramnios diagnosis, ($p=0.1$), mean AFI ($p=0.54$), median fetal abdominal circumference percentile ($p=0.15$) and fetal LGA rate (0.17) did not differ significantly. Regression analysis revealed that GCT result ($p=0.01$) and GWG ($p=0.04$) remained significantly associated with newly diagnosed GDM after adjustment for maternal age, BMI and EFW >90th percentile. A trend for the association between EFW >90th percentile and GDM ($p=0.055$) was also observed. Gestational age at delivery was similar in both groups ($p=0.89$). Although a higher prevalence of LGA newborns was observed in the study group (46% vs 20%, $p=0.04$), there was no significant difference in birth weight ($p=0.23$), cesarean section ($p=0.37$), or macrosomia rate ($p=0.21$).

CONCLUSION: Late onset GDM was identified in 11.8% of pregnancies with third trimester isolated polyhydramnios and negative GCT. Initiation of restrictive diet may account for decreased GWG in these patients. A higher score on GCT test was associated with late onset GDM. Thus, if polyhydramnios occurs, a high normal GCT score may warrant a repeat evaluation for GDM.

405 Does the one-step method of GDM screening improve pregnancy outcomes?

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OBJECTIVE: Despite significant debate, the best method of diagnosing gestational diabetes (GDM) remains unknown. The most commonly used method of GDM screening in the US is the 2-step method, which includes screening with a 50-g, 1-hour glucose challenge followed by a 100-g, 3-hour diagnostic OGTT. The International Association of Diabetes and Pregnancy Study Group (IADPSG) recommended adopting the 1-step method using a 75-g, 2-hour OGTT. The IADPSG thresholds have been predicted to increase the rates of GDM, but it is unknown whether this leads to improved outcomes.

STUDY DESIGN: This is a retrospective cohort study of patients who delivered before and after our institution switched from the two-step method to the one-step IADPSG method in July 2015. Women with a due date of Jan 1, 2012 through Oct 1, 2015, were diagnosed with GDM using the 2-step method and the Carpenter and Coustan criteria. After allowing for a 6 month washout period, we evaluated women with a due date of May 1, 2016 through Feb 1, 2018, when the 1-step IADPSG criteria was used. Maternal and neonatal outcomes were compared during these time periods, using Chi square and t-tests, and multivariable logistic regression.

