to make a diagnosis of a hypoglycemic disorder. In fact, this has multiple sources of error. Fulfillment of Whipple's triad is an essential step for establishing the diagnosis of a hypoglycemic disorder. Clinical case: A 47-year old Caucasian male with past medical history of paranoid schizophrenia was admitted to the ICU from an outside facility with catatonia and apneic spells following an acute change in mental status. He was diagnosed with neuroleptic malignant syndrome and Endocrinology was consulted after 137 days in the hospital for concerns of severe and recurrent hypoglycemia. The patient was non-verbal on evaluation and despite multiple capillary blood glucose readings of <70 mg/dL, including measurements as low as 29 mg/dL, he remained asymptomatic with absence of any clinical signs of an adrenergic response to hypoglycemic episodes. He was on continuous tube feeding through a PEG tube. The low capillary blood glucose measurements prompted rapid management with intravenous or oral dextrose based on the hypoglycemia protocol designed by the hospital. As a last resort, the patient was placed on a continuous dextrose infusion in addition to tube feeding to prevent hypoglycemia.Diagnostic evaluation: Following consultation, we ordered for a corresponding plasma glucose measurement to be done with any capillary blood glucose measurement of < 55 mg/dL prior to correction for hypoglycemia. For a capillary blood glucose measured at 48 mg/dL, corresponding plasma glucose was 95 mg/dL. Whipple's triad was not fulfilled and no additional work up was pursued. We recommended calibration of the glucose monitors for the hospital unit where the patient was admitted with recommendations to stop monitoring capillary blood glucose in this patient in the absence of diabetes, signs/symptoms of hypoglycemia, medications implicated to cause hypoglycemia and ongoing nutrition with tube feeding. Follow-up: The patient remains in the hospital and is waiting placement at an extended care facility. Plasma blood glucose measurements remain within normal range.Clinical lesson: Artifactual hypoglycemia, though uncommon, is an important consideration when evaluating and managing hypoglycemia. Whipple's triad is essential to make a diagnosis of true hypoglycemia. Several factors; patient, operator and machine-related, can impact measurements of capillary blood glucose measurements and often result in unnecessary treatment measures often causing inefficient and often preventable wastage of hospital resources and sometimes even harm the patient.

Diabetes Mellitus and Glucose Metabolism

PREGNANCY, LIPIDS, AND CV RISK — IMPACT OF DIABETES ACROSS THE SPECTRUM

Association of Hemoglobin A1c with Early Postpartum Metabolic Syndrome in Women with Gestational Diabetes

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Background: Women with gestational diabetes (GDM) are at increased risk of metabolic syndrome (MetS), an important risk factor for development of type 2 diabetes (T2DM) and cardiovascular disease. Elevated hemoglobin A1c (HbA1c) is associated with MetS outside of pregnancy and may enhance detection of MetS. It is not known whether HbA1c is associated with MetS in the early postpartum period in women with recent GDM.

Objective: We aimed to characterize the prevalence of MetS 4-12 weeks postpartum in women with recent GDM and to determine whether there was an association between HbA1c and MetS.

Methods: Women with GDM as defined by Carpenter-Coustan criteria or clinician diagnosis were enrolled into the Balance After Baby Intervention trial of a web-based intervention to prevent T2DM. They underwent a baseline study visit at 4-12 weeks postpartum. Waist circumference and blood pressure were obtained and a fasting lipid panel, HbA1c and a 75-g, 2 hr OGTT was performed. We defined MetS by NCEP ATP III criteria. We fit a logistic regression model adjusted for age, race/ethnicity, and number of weeks postpartum.

Results: 181 women with GDM were enrolled in the study. Three women were excluded because they did not have fasting lipid measurements. Women were a mean of 8.0 ± 1.8 weeks postpartum at their baseline study visit. 24.2% (n=43) of women had MetS (at least 3 of 5 NCEP ATP III criteria). Of these, 77% met the waist circumference criterion, 37.6% met the HDL criterion, 23.6% met the triglycerides criterion, 16.9% met the fasting glucose criterion and 14.6% met the blood pressure criterion. HbA1c as a continuous variable was not significantly associated with MS (OR for each 0.5% increase: 1.60, 95% CI 0.88-2.91). Elevated HbA1c (prediabetes range ≥5.7 to <6.5%) was also not associated with MetS (OR 0.98, 95% CI 0.46-2.12). A 2 hr blood glucose value of ≥140 mg/dL on OGTT testing was significantly associated with MetS (OR 5.28, 95% CI 2.11-13.22).

Conclusion: Nearly 1 in 4 women with recent GDM had MetS in the early postpartum period. There was no significant association between HbA1c and presence of MetS. However, an elevated 2 hr value on OGTT was significantly associated with MetS, suggesting that women with elevated 2 hr values may require additional monitoring for MetS and may have elevated cardiometabolic risk beyond the risk of development of T2DM.

Diabetes Mellitus and Glucose Metabolism

DIABETES COMPLICATIONS II

Neuroglycopenia: Avoiding Bias in Patients with Acute Psychosis.

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Introduction

The neurogenic response to hypoglycemia (HG) is well established. In contrast, neuroglycopenic (NG) manifestations are