Gestational Diabetes

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Objectives

1. Discuss the risk factors and pathophysiology of gestational diabetes.
2. Discuss the diagnosis, treatment, and complications of gestational diabetes during pregnancy.
3. Discuss future considerations for women with a history of gestational diabetes.
Disclosures

• I have no financial agreements or personal conflicts of interests to declare.
Pathophysiology

- Carbohydrate intolerance developing during the pregnancy.
- Related to the insulin receptor antagonism of Human Placental Lactogen, which is produced by the placenta.
Risk Factors

• Overweight (BMI >25 kg/m²) and Obesity (BMI >30 kg/m²)
• Ethnicity: African American, Latino, Native American, Asian American, and Pacific Islander
• Increasing maternal age
• History of gestational diabetes mellitus (GDM) in previous pregnancy
• History of fetal macrosomia (newborn weight >4,000g or 9 lbs)
• Family history of Type 2 Diabetes in 1st-degree relative
• Metabolic syndrome
Diagnosis of GDM

• Screening for GDM is generally performed at 24 to 28 weeks gestation.
  – Consider earlier screening depending on risk-factors.

• Most obstetricians use the 2-step screening process
  – The American Diabetes Assoc. also notes that a hemoglobin A1c level can be used but shouldn’t be used alone.

• First step is a 50g, 1-hour glucose tolerance test.
  – Threshold for abnormal 1-hour GTT varies (130-140 mg/dL).

• Second step is a 100g, 3-hour glucose tolerance test.
Treatment Options

• Dietary modification with glucose monitoring
• Increasing aerobic exercise
• Medications
  – Insulin
  – Insulin
  – Insulin
  – Insulin
  – Metformin
  – Glyburide
Pregnancy Complications

• Maternal complications include pre-eclampsia and cesarean section.
• Fetal / newborn complications include macrosomia, neonatal hypoglycemia, hyperbilirubinemia, shoulder dystocia, and birth trauma.
• Increased risk of stillbirth / IUFD with poor glycemic control.
Future Considerations

• Long-term risk factor for developing Type 2 Diabetes Mellitus, Heart disease, and Metabolic Syndrome
  – Screening with a 2-hour, 75g GTT at 1-3 months postpartum

• Life-style modifications
References


Questions?
Thank you!