MAMPS
Maternity Acupuncture
Mentoring and Peer Support

Framework for safe acupuncture practice when treating:

Gestational Diabetes (GDM)

Professional Safety and Red flags when treating Gestational Diabetes

Acupuncture can be a useful adjunct in managing gestational diabetes mellitus (GDM), but only in conjunction with a primary care plan as well as referrals for diet and exercise guidance. There are usually no symptoms present with GDM. Sometimes patients may feel mild thirst, frequent urination or blurred vision. Practitioners need to be familiar with risk factors (outlined below) as well as conditions for which GDM is itself a risk factor, such as operative birth, preeclampsia, preterm labor, polydraminios, overt diabetes later in life, and for the baby macrosomia, large for gestational age, shoulder dystocia, hypoglycaemia, polycythemia, and respiratory distress.

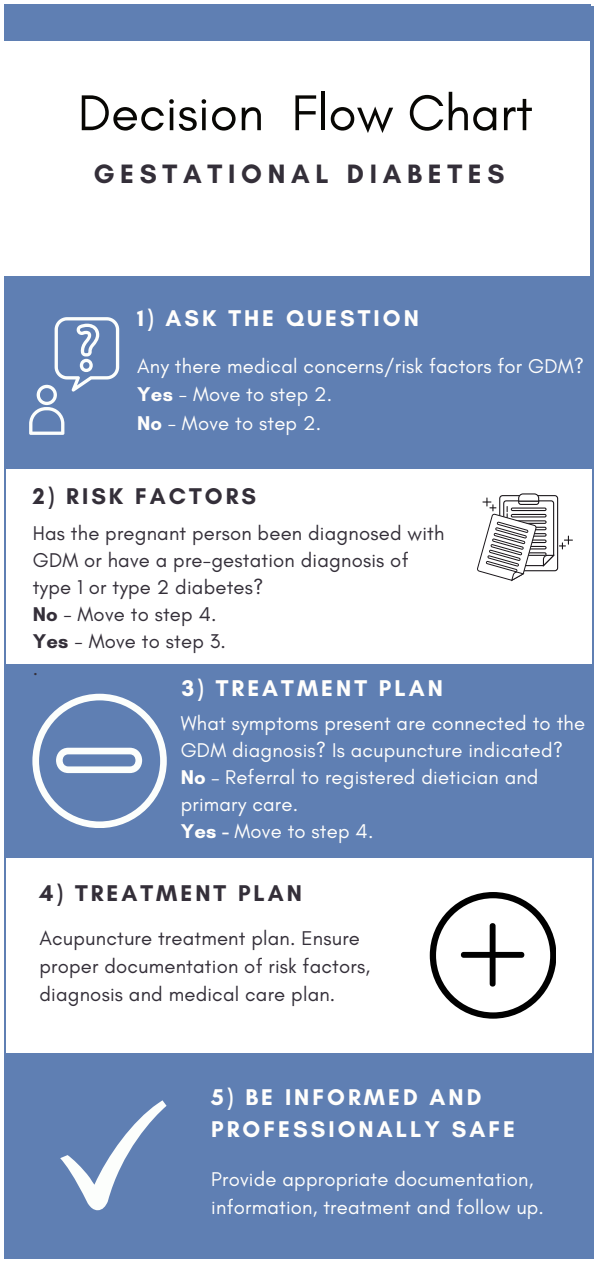
Background: Gestational diabetes mellitus (GDM) is a diagnosis given when glucose intolerance is detected for the first-time during pregnancy. If a person has not received appropriate health care screenings prior to pregnancy, the GDM diagnosis could reflect previously undiagnosed type 1 or type 2 diabetes mellitus (T1DM or T2DM). If diagnosed in the first trimester people are classified as having pregestational diabetes. If no major risk factors are present, pregnant people are screened between 24-28 weeks for GDM. Practitioners should familiarize themselves with the screenings and diagnostic guidelines that are best practices in their area, as they may vary.

Prior to 20 weeks, gestation cells are more responsive to insulin (the hormone secreted by the pancreas that allows glucose or blood sugar into cells for proper use) leading to less glucose in the blood. As pregnancy continues and the placenta grows, levels of human placental lactogen (hPL) and other diabetogenic hormones rise. These hormonal changes then make it difficult for the pregnant body to utilize insulin, leading to increased levels of glucose (sugar) in the blood. The pancreas can usually counterbalance this by secreting more insulin. However, if the cells become resistant to insulin, and glucose stays in the blood, this can lead to hyperglycaemia (high blood sugar). It is thought that insulin resistance happens to a normal extent in pregnancy to make sure that nutrients go to the baby even if food sources are scarce. Historically this has been helpful, and no adverse effects are shown from this normal amount of insulin resistance. However, when insulin resistance is excessive and blood glucose reaches abnormal levels, this can lead to macrosomia, or babies considered large for gestational age. Since insulin is an anabolic hormone that promotes cell growth, babies born to people with GDM tend to have excessive fat on the shoulders and trunks predisposing them to shoulder dystocia or operative birth. Guidelines suggest scheduling birth for 39 weeks' gestation due to shoulder dystocia. GDM resolves almost immediately after the placenta is birthed. However, with the diagnosis of GDM, there is a greater risk of developing T2DM later in life.

Application to Clinical Practice

Best practice when treating GDM includes documenting pregestational diagnoses of T1DM or T2DM, risk factors, OGTT scores, and, if diagnosed with GDM, primary carer's treatment plan (diet, exercise, glucose scores if daily testing, medication if indicated, and induction/birth plan). It is helpful to find proper referrals to registered dieticians and perinatal exercise specialists. When offering treatment to a patient with GDM the practitioner should be aware of the primary care/medical teams monitoring and management.

Risk factors that require consideration: Pregnant individuals who are African-American, Hispanic, American-Indian, or Asian are more likely to develop GDM. Other risk factors include but are not limited to: gestational age >40weeks , being overweight or obese (BMI >25), hx PCOS, essential hypertension, strong family history of T2DM, a history of GDM (45% chance of developing in subsequent pregnancies), history of abnormal glucose tolerance, history of adverse pregnancy outcomes associated with GDM (such as an infant >9 pounds/>4kg), unexplained stillbirth, or infant with congenital anomalies.



Appropriate documentation for professional safety and when presenting as a case history.

- Gestational age in weeks and pregnancy history (number of pregnancies and live births).
- Any risk factors of GDM.
- Medical management plan and proper referrals if dx of GDM.
- What symptoms is the patient presenting with that are connected to their diagnosis of GDM?
- Your diagnosis and Tx plan.
- Continue communication with primary medical team, as appropriate.

Recommended reading:

King, T. L. (2015). *Varney's midwifery.* Fifth edition. Burlington, Massachusetts: Jones & Bartlett Learning

Jordon, R. G. (2014). *Prenatal and Postnatal Care: A Woman-Centered Approach*. Ames, Iowa: Wiley Blackwell.

Websites:

Dekker, R. (2012, June 14). *Evidence on: Diagnosing gestational Diabetes.* Evidence Based Birth®. https://evidencebasedbirth.com/gestational-diabetes-and-the-glucola-test/

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