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Evidence on: Induction for Gestational Diabetes

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Question: What is gestational diabetes?

Answer: *Gestational diabetes mellitus* (GDM) is high blood sugar that develops during pregnancy. Pregnant people with GDM are faced with the decision to induce labor at or near term or to use expectant management. Choosing *expectant management* means you decline elective induction and instead plan to wait for labor to start on its own. With expectant management, you could also choose an elective induction later on, or be induced later for medical reasons.

Question: Is induction necessary with gestational diabetes?

Answer: Some care providers encourage women with GDM to plan an elective induction at early term since they are at increased risk of complications from high blood sugar. There is no evidence from randomized trials to support inducing labor for everyone with GDM. The one trial on induction for GDM did not find any benefits for the mother or baby from elective induction between 38 weeks, 0 days and 39 weeks, 0 days of pregnancy versus waiting for labor to start on its own until 41 weeks, 0 days, as long as no medical problems developed (Alberico et al. 2017). On the other hand, some observational studies have found benefits from induction at 39 weeks, as we will discuss below.

Question: Does induction lower the risk of stillbirth with GDM?

Answer: A large retrospective study found that expectant management at 39 and 40 weeks carried an 80% higher *relative risk* of fetal or newborn death compared to giving birth at that time (Rosenstein et al. 2012). Relative risk is the risk of something happening to you in comparison to someone else. The *absolute risk* of perinatal death, or the actual chance of it happening, was low whether a woman with GDM chose to be induced or followed expectant management.

- At 39 weeks, the absolute risk of stillbirth or newborn death was 9 deaths per 10,000 for people who gave birth versus 15 deaths per 10,000 with expectant management for one more week.
- At 40 weeks, the absolute risk of stillbirth or newborn death was 10 deaths per 10,000 for people who gave birth versus 17 deaths per 10,000 with expectant management for one more week.

The number of women with GDM who would need to be treated with induction to prevent one death at 39 or 40 weeks' gestation was 1,500 and 1,300 respectively.

Question: Does induction lower the risk of Cesarean with GDM?

Answer: The largest observational study to look at this outcome found that inducing labor at 39 weeks is linked to a lower rate of Cesarean and fewer cases of pre-eclampsia and hypertension compared to waiting until at least 40 weeks to give birth (Melamed et al. 2016) .

Question: Do babies of mothers with GDM benefit from induction?

Answer: Observational studies have shown that newborns of mothers who are induced during their 39th week of pregnancy are less likely to be very large (weigh more than 4,000 grams) and less likely to have breathing problems compared to those born at 40+ weeks (Melamed et al. 2016). However, 38-week induction is linked to more health problems in newborns.

Importantly, it's not clear if the potential benefits from elective induction (e.g., lower risk of stillbirth, fewer very large babies) apply to mothers with well-managed blood sugar levels, since this data was not included in the studies.

Question: Can treatment for GDM lower the risk of complications?

Answer: There is strong evidence from randomized trials that treatment (nutrition counseling, blood sugar monitoring, exercise, and medication as needed) lowers the risk of large birth weight by 50% and shoulder dystocia (when the baby's shoulders get stuck during birth) by 60% (Farrar et al. 2017).

> **"If you're weighing the pros and cons of induction for GDM, also consider your blood sugar control since starting treatment."**

1. Alberico et al. (2017). Immediate delivery or expectant management in gestational diabetes at term: the ginexmal randomised controlled trial. BJOG;124(4):669–77.
2. Rosenstein et al. (2012). The risk of stillbirth and infant death stratified by gestational age in wo men with gestational diabetes. Am J Obstet Gynecol 206: 309:e1–e7.
3. Melamed et al. (2016). Induction of labor before 40 weeks is associated with lower rate of cesarean delivery in women with gestational diabetes mellitus. Am J Obstet Gynecol;214:364.e1-8.
4. Farrar et al. (2017). Treatments for gestational diabetes: a systematic review and meta-analysis. BMJ Open;7:e015557.