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Should induction of labor be considered in a woman with a macrosomic baby?

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EVIDENCE-BASED ANSWER

Currently, there is no evidence to support labor induction in women with suspected fetal macrosomia (grade of recommendation: B, based on 2 randomized controlled trials with small sample sizes). Cesarean delivery may be considered for suspected fetal macrosomia with estimated fetal weight (EFW) greater than 5000 g in women without diabetes and greater than 4500 g in women with diabetes[1] (grade of recommendation: D-, based on consensus and expert opinion).

EVIDENCE SUMMARY

The definition of macrosomia is fetal weight of 4000 to 4500 g or greater, regardless of gestational age. This differs from "large for gestational age," which is a birth weight greater than 90th percentile for a given gestational age. Ten percent of all US live born infants weigh more than 4000 g, and 1.5% weigh more than 4500 g.[1] Detection of fetal macrosomia is difficult, because there are no reliable methods for determining EFW. Ultrasound estimate of fetal weight may be less accurate than estimates by multiparous patients and clinicians using Leopold maneuvers.[2] Ultrasound prediction of EFW in babies 4500 g or larger can be off by as much as 13%.[1] The purpose of induction for fetal macrosomia would be to prevent maternal and neonatal morbidities. However, studies have shown that the incidence of cesarean and instrumented deliveries was not decreased, and perinatal morbidity was not changed.[3] To date, there are only 2 randomized controlled trials comparing expectant management with induction of labor for suspected fetal macrosomia.

Gonen and colleagues[4] followed 273 women at 38 weeks or more with ultrasound-determined fetal weights between 4000 and 4500 g. Women were excluded if they had diabetes, noncephalic presentations, a previous cesarean delivery, or other indications for induction. The induction group received either prostaglandin or pitocin for induction, depending on cervical status. Patients in the expectant management group were induced at 42 weeks. There was no change in cesarean delivery rate or in neonatal morbidity.

Tey and coworkers[5] randomized 40 women who did not have diabetes at 37 to 42 weeks with EFWs between 4000 and 4500 g to induction versus expectant management. Induction was performed with prostaglandin if the cervix was unfavorable (Bishop score <6), followed by pitocin. Women were excluded if there was an indication for delivery at the time of enrollment. There was no statistical difference in the cesarean delivery rate or incidence of shoulder dystocia between the 2 groups.

RECOMMENDATIONS FROM OTHERS

An American College of Obstetrics and Gynecology Practice Bulletin states the position that there is no role for induction of labor in term women with suspected fetal macrosomia. This recommendation is based on the difficulty of accurate assessment of fetal weight and additional case-control evidence suggesting that induction increases the risk of cesarean delivery without improving maternal or fetal outcomes.

CLINICAL COMMENTARY

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Maternity care is frequently dictated by patient expectations, anecdotal experiences, and medical folklore, despite scientific evidence. Certainly, there is a role for "art" in the practice of medicine, but physicians may confuse art with fear of morbidity and litigation. Mention macrosomia, and knuckles whiten; the dread of shoulder dystocia is palpable.

This clinical inquiry presents a concise review of the lack of discernible benefit from induction for macrosomia. This should calm fears when patients plead, "Please, Doctor, I'm so big and so uncomfortable. Just take it now!" Taking this evidence to heart, and continuing to monitor the pregnancy/labor/delivery with heightened vigilance, physicians can avoid the risk of doing harm, while following a pregnancy to its natural conclusion.

R E F E R E N C E S

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5. Tey A, Eriksen NL, Blanco JD. A prospective randomized trial of induction versus expectant management in nondiabetic pregnancies with fetal macrosomia. Am J Obstet Gynecol 1995;172:293.

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