Management of Suboptimally Dated Pregnancies

ABSTRACT: The American College of Obstetricians and Gynecologists considers first-trimester ultrasonography to be the most accurate method to establish or confirm gestational age. Pregnancies without an ultrasonographic examination confirming or revising the estimated due date before 22 0/7 weeks of gestation should be considered suboptimally dated. This document provides guidance for managing pregnancies in which the best clinical estimate of gestational age is suboptimal. There is no role for elective delivery in a woman with a suboptimally dated pregnancy. Although guidelines for indicated late-preterm and early-term deliveries depend on accurate determination of gestational age, women with suboptimally dated pregnancies should be managed according to these same guidelines because of the lack of a superior alternative. The best clinical estimate of gestational age should serve as the basis for decisions regarding antenatal corticosteroid exposure in women with suboptimally dated pregnancies who are at perceived risk of preterm delivery. Amniocentesis for fetal lung maturity is not recommended as a routine component of decision making when considering delivery in a woman with a suboptimally dated pregnancy. Late-term delivery is indicated at 41 weeks of gestation when gestational age is uncertain, using the best clinical estimate of gestational age. Initiation of antepartum fetal surveillance at 39–40 weeks of gestation may be considered for suboptimally dated pregnancies. During the antenatal care of a woman with a suboptimally dated pregnancy, it is reasonable to consider an interval ultrasonographic assessment of fetal weight and gestational age 3–4 weeks after the initial ultrasonographic study.

Recommendations

The American College of Obstetricians and Gynecologists (the College) makes the following recommendations and conclusions:

• Pregnancies without an ultrasonographic examination confirming or revising the estimated due date before 22 0/7 weeks of gestation should be considered suboptimally dated.
• The timing of indicated delivery in a woman with a suboptimally dated pregnancy should be based on the best clinical estimate of gestational age.
• There is no role for elective delivery in a woman with a suboptimally dated pregnancy.
• Amniocentesis for fetal lung maturity is not recommended as a routine component of decision making when considering delivery in a woman with a suboptimally dated pregnancy.
• During the antenatal care of a woman with a suboptimally dated pregnancy, it is reasonable to consider an interval ultrasonographic assessment of fetal weight and gestational age 3–4 weeks after the initial ultrasonographic study. Although this follow-up examination is intended to support the working gestational age, interval fetal growth assessment potentially may detect cases of fetal growth restriction.
• Given concern that a full-term or late-term suboptimally dated pregnancy could actually be weeks further along than it is believed to be, initiation of antepartum fetal surveillance at 39–40 weeks of gestation may be considered.
Introduction
Contemporary efforts to curb elective deliveries before 39 weeks of gestation are intended to reduce risks of neonatal respiratory and nonrespiratory morbidities that are more frequently associated with early-term birth (1–3). Implicit in strategies to reduce nonmedically indicated early deliveries is a best clinical estimate of gestational age (4,5). This document provides guidance for managing pregnancies in which the best clinical estimate of gestational age is suboptimal.

Defining a Suboptimally Dated Pregnancy
The American College of Obstetricians and Gynecologists considers first-trimester ultrasonography to be the most accurate method to establish or confirm gestational age (6). In the second and third trimesters, ultrasonographic biometric dating has a range of inaccuracy that increases with advancing gestational age. Pregnancies without an ultrasonographic examination confirming or revising the estimated due date before 22 0/7 weeks of gestation should be considered suboptimally dated.

A recommended 22-week cutoff for the determination of a suboptimally dated pregnancy replaces an established historic threshold at 20 weeks of gestation. The rationale supporting a change to 22 weeks is that the same discrepancy of more than 10 days between ultrasonographic dating and menstrual dating, sufficient to support revision of the estimated due date, applies to pregnancies from 16 0/7 weeks through 21 6/7 weeks of gestation (6). This proposed cutoff also is consistent with the recent College recommendation that the optimal time for a single ultrasonographic examination during pregnancy is at 18–22 weeks of gestation because ultrasonography performed during this time allows for fetal anatomic assessment and accurate estimation of gestational age (7).

Deliveries in Women With Suboptimally Dated Pregnancies
Consistent with the practice for accurately dated pregnancies, the timing of indicated delivery in a woman with a suboptimally dated pregnancy should be based on the best clinical estimate of gestational age. However, there is no role for elective delivery in a woman with a suboptimally dated pregnancy. Without a risk for the woman or the fetus that is considered sufficient to warrant delivery, elective delivery could introduce unnecessary risk of neonatal morbidity if the pregnancy proves to be earlier in gestation than originally estimated.

Indicated preterm deliveries in women with suboptimally dated pregnancies should be based on the best clinical estimate of gestational age. Although guidelines for indicated late-preterm and early-term deliveries depend on accurate determination of gestational age, women with suboptimally dated pregnancies should be managed according to these same guidelines because of the lack of a superior alternative (8,9).

The best clinical estimate of gestational age should serve as the basis for decisions regarding antenatal corticosteroid exposure in women with suboptimally dated pregnancies who are at perceived risk of preterm delivery. Antenatal corticosteroid administration generally is recommended before anticipated delivery between 24 weeks and 34 weeks of gestation (10). Corticosteroid administration also may be considered in the late-preterm period (between 34 0/7 weeks and 36 6/7 weeks of gestation) for women at imminent risk of preterm birth within 7 days based upon eligibility (10,11). There is insufficient data to support a policy for antenatal corticosteroid exposure in the setting of a woman with a suboptimally dated pregnancy undergoing presumed term delivery.

Amniocentesis for Fetal Lung Maturity in Women With Suboptimally Dated Pregnancies
Historically, amniocentesis has been used to assess fetal lung maturity before the planned delivery of a fetus lacking an accurate gestational age determination in order to mitigate the risks of unintentionally delivering a fetus at an earlier-than-expected gestational age (12). However, late-preterm and early-term newborns with mature fetal lung profiles remain at increased risk of adverse respiratory and nonrespiratory morbidities when compared with newborns born at or beyond 39 weeks of gestation (1,8,13,14). Given the lack of reliability for predicting newborn pulmonary outcomes and an inability to predict nonrespiratory outcomes, amniocentesis for fetal lung maturity is not recommended as a routine component of decision making when considering delivery in a woman with a suboptimally dated pregnancy.

Other Specific Considerations
Management of a presumably late-term pregnancy that lacks accurate gestational age determination warrants different consideration because the greater risk for these ongoing gestations is unrecognized advanced postmaturity and related increases in perinatal morbidity and mortality (15). Given concern that a full-term or late-term suboptimally dated pregnancy could actually be weeks further along than it is believed to be (16), late-term delivery is indicated at 41 weeks of gestation when gestational age is uncertain, using the best clinical estimate of gestational age. For similar reasons, initiation of antepartum fetal surveillance at 39–40 weeks of gestation may be considered for suboptimally dated pregnancies.

Delivery management of a pregnancy in a woman with a prior cesarean delivery also can be complicated by suboptimal pregnancy dating. In suitable candidates who favor a trial of labor after cesarean delivery but lack accurate gestational age determination, decisions about delivery timing and mode of delivery should be based
on the best clinical estimate of gestational age (17). In a patient with a suboptimally dated pregnancy and a prior low-transverse cesarean delivery who requests a repeat cesarean delivery, delivery is advised at 39 weeks of gestation using best clinical estimate of gestational age.

During the antenatal care of a woman with a suboptimally dated pregnancy, it is reasonable to consider an interval ultrasonographic assessment of fetal weight and gestational age 3–4 weeks after the initial ultrasonographic study. Although this follow-up examination is intended to support the working gestational age, interval fetal growth assessment potentially may detect cases of fetal growth restriction. For cases in which fetal growth restriction is suspected upon follow-up ultrasonography, fetal surveillance with umbilical artery Doppler velocimetry study is indicated and delivery timing should be reconsidered (18).

When planning a delivery in a woman with a suboptimally dated pregnancy, the patient should be informed that limitations in determining an accurate gestational age introduce a greater risk of neonatal morbidity if the pregnancy is dated incorrectly and is actually earlier in gestation than it is believed to be. However, the patient should be informed that the rationale supporting delivery is that the risks of an ongoing pregnancy in the setting of a specific indication are believed to outweigh the risks associated with inaccurate gestational age assignment.

References


