Delivery Urged at 36 Weeks With Placenta Previa

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SAN FRANCISCO — To optimize maternal and neonatal outcomes in pregnancies complicated by placenta previa, administer antenatal steroids at 35 weeks’ and 3 days’ gestation, and follow with delivery at 36 weeks, Dr. Marya Zlatnik said at the annual meeting of the Society for Maternal-Fetal Medicine.

She and her associates conducted a decision analysis modeling study to weigh the risks to mothers and babies at various times of delivery in the setting of placenta previa. In general, earlier deliveries would benefit mothers by minimizing the risk of bleeding, but later deliveries allow fetuses to increase gestational age and avoid potential complications of preterm births.

A typical recommendation used in clinical practice calls for amniocentesis to check for fetal lung maturity followed by delivery at 26-37 weeks’ gestation, yet there are no randomized controlled trial data to support that, noted Dr. Zlatnik, of the University of California, San Francisco. A randomized study would need 10,000 women in each arm and is unlikely to be conducted.

The present study compared total maternal and neonatal quality-adjusted life years after delivery at gestational ages ranging from 14 to 38 weeks. The model looked at four delivery strategies. The first entailed amniocentesis for fetal lung maturity, with expectant management if results were negative. The second scenario used amniocentesis for lung maturity plus administration of antenatal steroids if results were negative, followed by delivery in 48 hours. The third strategy involved giving steroids to all women followed by delivery in 48 hours. The fourth option skipped amniocentesis and steroids and called for immediate delivery at the gestational age being studied.

The investigators assumed a risk of emergent bleeding ranging from 5% at 35 weeks to 29% at 38 weeks, and a risk for hysterectomies ranging from 2% with scheduled deliveries to 6% for delivery after emergent bleeding.

Total quality-adjusted life years peaked for women with delivery at 36 weeks with or without use of steroids. Adding antenatal steroids improved fetal outcomes. The modeling did not incorporate potential long-term effects from use of steroids.

The modeling did not control for the effects of diabetes, which could affect the conclusions, Dr. Zlatnik said. She hoped to stratify maternal risks for women with a history of bleeding in a future analysis.

For every 100,000 women with placenta previa delivered at 36 weeks under the current study’s modeling, 15,040 would have emergent bleeds, 2,225 would have hysterectomies, and 31 would die. For neonates, 3,290 would have respiratory distress syndrome. "Most of the strategies achieved fairly similar results, with the absolute differences being minimal, especially between the 36-week options, so there is some room for obstetric practices to determine the optimal time for delivery for each patient," she said.

Decision analysis study techniques are useful but simplify the clinical situation, and some data on probabilities of risk come from small sample sizes, Dr. Zlatnik commented. Choosing strategies that maximize quality-adjusted life years may not coincide with individual preferences, she added.

Approximately 3 per 1,000 pregnant women with singletons have placenta previa at term, with higher risk levels in some subgroups. Placenta previa caused 7% of maternal deaths between 1979 and 2002, Dr. Zlatnik said.