

Repeat C-section before 39 weeks raises risk of neonatal illness

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Women choosing repeat cesarean deliveries and having them at term but before completing 39 weeks gestation are up to two times more likely to have a baby with serious complications including respiratory distress resulting in mechanical ventilation and NICU admission.

UAB researchers, led by Alan T.N. Tita, M.D., Ph.D., assistant professor in the UAB Department of Obstetrics and Gynecology Division of Maternal-Fetal Medicine, and colleagues reported in a study published January 8 in the *New England Journal of Medicine* that women who choose to have their babies delivered via repeat cesarean at 37 or 38 weeks without a medical or obstetric indication, risk serious complications for their child.

"The cesarean rate in the United States has risen dramatically, from 20.7 percent in 1996 to 31.1 percent in 2006. A major reason is the decline in attempted vaginal births after cesarean. Because elective cesareans can be scheduled to accommodate patient and physician convenience, there is a risk that they may be performed earlier than is appropriate." Tita said. "We knew from previous small studies that infants born before 39 weeks' gestation are at increased risk for respiratory distress. Because nearly 40 percent of the cesareans performed in the United States each year are repeat procedures, we undertook this large study to describe the timing of elective repeat cesareans and assess its relationship with the risk of various adverse neonatal outcomes."

Tita and colleagues studied 13,258 women who had elective repeat

cesarean sections at the 19 centers of the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) Maternal-Fetal Medicine Units (MFMU) Network from 1999 through 2002. They were selected from the Cesarean Section Registry of the network. The registry contains detailed, prospectively collected information on nearly 50,000 women with a prior cesarean who underwent either repeat cesarean delivery or a trial of labor at the 19 centers over the 4-year period. The 13,258 women studied were those who underwent an elective cesarean of a viable infant at 37 weeks gestation or later in the absence of labor or other obstetric or medical indications for early cesarean delivery (prior to 39 weeks).

The researchers looked at whether an infant who was delivered at 37 weeks later died or was diagnosed with a number of conditions, including respiratory distress syndrome and/or transient tachypnea of the newborn, newborn sepsis, seizures, necrotizing enterocolitis, hypoxic ischemic encephalopathy, required ventilator support within 24 hours of birth, had umbilical cord arterial pH (a measure of oxygenation) below 7.0, an Apgar score at five minutes of three or below, was admitted to a neonatal intensive care unit or required prolonged hospitalization.

Of the 13,258 women who had elective repeat cesarean sections, as many as 35.8 percent were delivered before 39 weeks. Babies born at 37 weeks, were two times more likely to suffer with conditions common to babies born too soon, and at 38 weeks, they were one and a half times more likely.

Tita said these findings, along with other studies, underscore the importance of not delivering a baby before 39 weeks for the sake of convenience.

"Unfortunately, these early deliveries are associated with a preventable increase in neonatal morbidity and NICU admissions, which carry a high

personal and economic cost. These findings support recommendations to delay elective delivery until 39 weeks gestation and should be helpful in counseling women on the necessity of waiting to deliver."

Source: University of Alabama at Birmingham

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