Planned Cesarean No Safer Than Vaginal Delivery for Twins

A planned cesarean delivery in twin pregnancy does not increase or decrease risks to the unborn fetuses when compared with a planned vaginal delivery, according to the results of a randomized controlled trial. The study, published in the October 3 issue of the *New England Journal of Medicine*, shows that among pregnant mothers of twins between 32 weeks 0 days and 38 weeks 6 days of gestation and whose first twin is in the cephalic presentation, choosing to have a planned cesarean delivery does not affect the risks for fetal or neonatal death or serious neonatal morbidity when compared with choosing to deliver the twins vaginally.

"These results do not indicate that all sets of twins should be delivered vaginally." Michael Greene, MD, notes in an accompanying editorial. "Obstetricians exercising their best clinical judgment delivered both twins by cesarean section in nearly 40% of the women assigned to planned vaginal delivery, which undoubtedly contributed to the salutary outcomes," he writes. "However, the results of this study suggest that a plan to deliver appropriately selected sets of twins vaginally is a reasonably safe choice in skilled hands."

Dr. Greene is chief of the Massachusetts General Division of Obstetrics in Boston. He is also associate editor of the *New England Journal of Medicine*, overseeing the editorial departments of surgery, pediatrics, and obstetrics and gynecology.

Jon F.R. Barrett, MD, from the Department of Obstetrics and Gynaecology Sunnybrook Health Sciences Centre in Toronto and colleagues in the Twin Birth Study Collaborative Group enrolled women from 106 centers in 25 countries between December 13, 2004, and April 4, 2011. Women were eligible for the study if they had a twin pregnancy between 32 weeks 0 days and 38 weeks 6 days of gestation, if both fetuses were alive with an estimated weight between 1500 and 4000 g, and if the first twin were in the cephalic position.

The investigators randomly assigned 1398 women to receive a planned cesarean delivery and 1406 women to have a planned vaginal delivery with cesarean only if indicated. They planned for electively delivery between 37 weeks 5 days and 38 weeks 6 days of gestation.

Among women in the planned cesarean delivery group, 90.7% delivered via cesarean, as did 43.8% in the planned vaginal delivery group.

The researchers found that women in the planned cesarean delivery group had their babies earlier than those in the planned vaginal delivery group, at an average of 12.4 days vs 13.3 days after randomization ($P = .04$).

In terms of the primary trial outcome, there was no significant difference in neonatal death or serious neonatal morbidity between the planned cesarean group and the planned vaginal delivery group (2.2% and 1.9%, respectively; odds ratio, 1.16; 95% confidence interval, 0.77 - 1.74; $P = .49$).

In addition, there were no significant differences in a composite measure for maternal outcomes between the two groups (7.3% and 8.5%, respectively; $P = .29$).

Despite the study's findings, Dr. Greene does not see its results having too much bearing on clinical practice.

"Given the trends in patient demographic characteristics and preferences, the virtual disappearance of vaginal delivery in cases of breech presentation, and the dramatic reduction in instrumented vaginal delivery (and the associated gradual disappearance of the skills necessary to perform these procedures among obstetricians), it seems unlikely that we will see a major change in use of cesarean delivery for twins nationwide," he concludes.

Dr. Barrett presented findings from the study at the the Society for Maternal-Fetal Medicine 33rd Annual Meeting earlier this year.

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