Risks of Delayed-Interval Delivery Can Be High

VITALS

Major Finding: Of the 18 first-born infants, only 1 survived until discharge, while 13 survived among the 22 latter-born infants.

Data Source: A series of 17 premature multifetal deliveries in which the first fetus was born at least 24 hours before the others.

Disclosures: Dr. Murji reported no conflicts of interest.

BY KATE JOHNSON

FROM THE ANNUAL MEETING OF THE SOCIETY OF OBSTETRICIANS AND GYNAECOLOGISTS OF CANADA

MONTREAL – Delayed-interval delivery when the initial delivery is extremely premature carries high maternal and infant morbidity, as well as a high infant mortality, reported Dr. Ally Murji of the University of Toronto's division of maternal-fetal medicine.

"Just because we can do something, it doesn't mean it should be done," he said in an interview.

In a study that he presented at the meeting, Dr. Murji described a series of 17 premature multifetal deliveries in which the first fetus was born at least 24 hours before the others. The mean gestational age of the first delivery was 23 weeks and 2 days.

"In our series, this procedure was reserved for the threshold of viability – extremely premature infants," he said in an interview, explaining that the majority of the initial deliveries were precipitated by preterm premature rupture of membranes (PPROM).

Among the 17 pregnancies, 12 were twin gestations, 4 were triplets, and one was a quadruplet pregnancy, said Dr. Murji.

Forty-one percent of the pregnancies had been conceived spontaneously, with the remainder being a result of either in-vitro fertilization (47%) or ovulation induction (12%). All infants were born vaginally, except for two of the latter-born infants. In the quadruplet delivery, two babies were born within minutes of each other, followed by a latency interval and then the birth of the other two. During the interval, 88% of mothers received antibiotics and 47% received tocolysis.

Of the 18 first-born infants, only 1 survived until discharge; 13 survived among the 22 latter-born infants – a survival rate of 59%. Mean birth weight was 468 g for first-born infants and 674 g for latter-born infants.

"Clearly there is a survival benefit in having an asynchronous delivery," noted Dr. Murji. "But these babies are not out of the woods. When you look at the absolute weights these are very small babies – babies who are very fragile. The prognosis for these babies is already guarded."

Indeed, the infants' average stay in the neonatal intensive care unit was 104 days. Twelve of the 13 infants had at least one morbidity, including retinopathy of prematurity, intraventricular hemorrhage, patent ductus arteriosus, or sepsis, and many of them had multiple comorbidities.

Maternal morbidity also was significant. The average age of the mothers was 31 years, and complications occurred in 71% of them, with intraamniotic infection being the most common (59%). Almost half of the mothers (47%) experienced two or more complications, with abruptio placentae, postpartum hemorrhage, and blood transfusions each occurring in 18% and septic pelvic thrombophlebitis and pulmonary edema each occurring in 6%.

The findings underscore the decisions that parents and physicians must face in contemplating delayed interval delivery in the context of premature delivery of the first baby.

"Outcomes in extremely premature deliveries are meager, at best. Although we can do asynchronous delivery, is it really reasonable? Yes, there is a clear survival benefit for the latter-born infant, but this survival benefit comes at the risk of maternal morbidity and the interval in our experience has only been 1 week. And these latter-born infants have significant morbidity because they're born so prematurely," said Dr. Murji. ■