

Later Delivery After PPRM Reduces Morbidity

BY MITCHEL L. ZOLER
Philadelphia Bureau

OTTAWA — Delivery more than 72 hours after preterm premature rupture of membranes was associated with a significantly reduced rate of neonatal morbidity in a retrospective review of more than 1,500 pregnancies at one Canadian center.

Induced or surgical delivery within 72 hours of preterm premature rupture of membranes (PPROM) was considered aggressive management, and delivery beyond 72 hours was considered conservative management.

"A policy of conservative management for advanced gestational age at PPRM will reduce severe infant morbidity at up to 32 weeks' gestation, and reduces moderate morbidity at up to 36 weeks," Dr. Dan Nayot said at the annual clinical meeting of the Society of Obstetricians and Gynaecologists of Canada.

"Our data suggest taking a watch-and-wait approach through 36 weeks," said Dr. Nayot, who performed this analysis while at the University of Western Ontario in London; he is now an ob.gyn. at the University of Toronto.

This finding, drawn from 10 years of data collected at a regional tertiary-care hospital in London, contrasts with what has become common practice at many centers in the United States, where aggressive induction of delivery is often used for PPRM after 32 weeks' gestation, noted Dr. Bryan Richardson, chairman of the department of ob.gyn. at the University of Western Ontario and senior researcher for this study.

"There has never been a randomized, controlled trial, but studies of data from the U.S. suggest there's no benefit from delaying delivery after 32 weeks' gestational age. A problem with those data is that they come

from patient populations that are largely public institution-based, with patients from lower socioeconomic levels, and this may introduce possible confounders," Dr. Richardson said in an interview. The London data come from what may be a more representative population mix, he said.

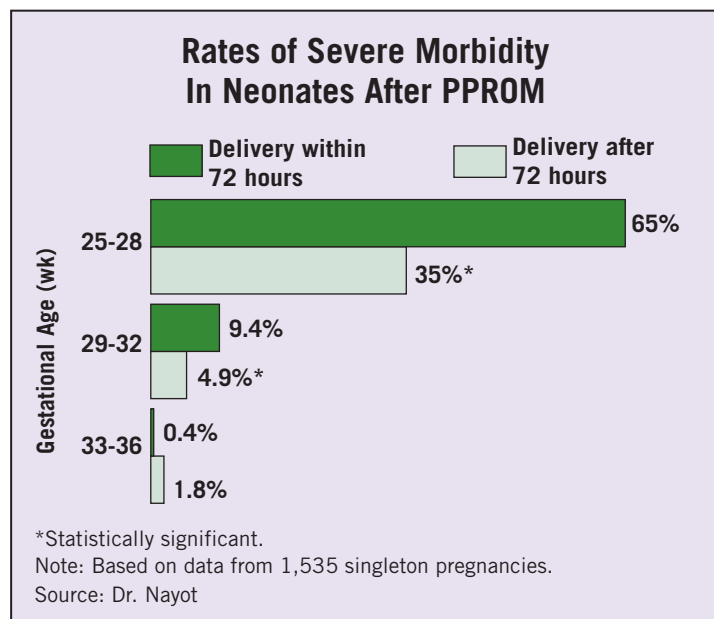
The study used data collected on all deliveries at St. Joseph's Health Care from 1996 to 2005. During that time there were 1,535 pregnancies where PPRM occurred after 24 weeks' and before 37 weeks' gestation and involved a singleton pregnancy with no major anomalies. These pregnancies accounted for 4.3% of all deliveries during this period. The analysis divided the PPRM deliveries into three subgroups: those that occurred during weeks 25-28, those during weeks 29-32, and those during weeks 33-36.

PPROM most often occurred at 33-36 weeks' gestational age and accounted for 72% of all episodes. PPRM was next most common during weeks 29-32 (19% of all episodes), and was least common during weeks 25-28 (10% of all episodes [total is 101% because of rounding]). Aggressive management was most frequent for near-term PPRM; 90% of all pregnancies with PPRM at 33-36 weeks were delivered within 72 hours. Aggressive delivery was used for 58% of PPRM deliveries during weeks 29-32, and in 33% of episodes during weeks 25-28.

Within both the near-term and preterm subgroups, earlier delivery was used more often for older gestational ages. In the 33- to 36-week group, the average age of the infants delivered within 72 hours was 35.2 weeks vs. 34.0 weeks in the conservative group. In the 29- to 32-week group, the average age of the infants who had aggressive delivery was 30.9 weeks vs. 30.5 weeks in those managed conservatively. In the pregnancies that had PPRM during weeks 25-28, the average age at delivery was 26.5 weeks in both subgroups.

Severe infant comorbidities included bronchopulmonary dysplasia, intraventricular hemorrhage grades 3 or 4, periventricular leukomalacia, necrotizing enterocolitis, retinopathy of prematurity grades 3 or 4, and perinatal death. Moderate comorbidities were respiratory distress syndrome, intraventricular hemorrhage grades 1 or 2, retinopathy of prematurity grades 1 or 2, and sepsis.

In pregnancies that had PPRM during 25-28 weeks or 29-32 weeks, aggressive management led to a significantly higher incidence of severe perinatal outcomes, Dr. Nayot said. (See graph.) In pregnancies that had PPRM at 29-32 weeks or 33-36 weeks, aggressive management significantly boosted the incidence of moderate perinatal comorbidities. ■



Delayed Blood Patch May Aid Post-Dural Puncture Headache

BY KATE JOHNSON
Montreal Bureau

BANFF, ALTA. — Initial conservative treatment of post-dural puncture headache, with delayed placement of a blood patch, may increase the likelihood of early treatment success, Dr. Paul Tan suggested at the annual meeting of the Society of Obstetric Anesthesia and Perinatology.

"One of the explanations for this is that local anesthetics are still residual in the epidural space and can inhibit the coagulation of the blood that's given in the blood patch," said Dr. Tan of the Cleveland Clinic in an interview.

The study he presented reviewed 130 patients who received therapeutic epidural blood patches (EPB) for post-dural puncture headache. Forty-seven (36%) of the patients required a repeat EPB. In exploring factors that might be associated with the need for a repeat EPB, including body mass index, parity, needle type, amount of blood injected in the first EPB, time from dural puncture to headache onset, and time from headache onset to first EPB, the authors found that the time measurements were the only independent predictors of first EPB success.

"To my knowledge this is the first time that both the time from puncture to headache onset, and the time from headache onset to first blood patch, have been looked at separately," he said, adding that although

the time from puncture to headache onset is not modifiable, information about it can help in counseling patients. "If the patient develops a headache quickly after the puncture, they should be counseled it is likely the first blood patch will fail, and they may need more than one," he said.

These patients can also be encouraged to undertake a trial of conservative treatment measures such as intravenous hydration, caffeine, and oral pain medications in an effort to delay placement of the first blood patch, he added.

Study patients needing a second EPB had a mean time from puncture to headache onset of 10 hours, and a mean of 16 hours from headache onset to placement of the first patch, compared with 17 hours and 29 hours, respectively, in those not needing a second patch.

"A doubling of the time from puncture to headache onset resulted in a 46% reduction in the odds of the patient needing a repeat patch, and a doubling of the time from headache onset to first blood patch resulted in a 41% reduction in the odds of needing a repeat patch," he said.

Dr. Tan suggested that the shorter times associated with needing a repeat patch could also be a marker for the severity of the dural puncture, and that the self-limiting nature of post-dural puncture headache could explain why the longer time interval resulted in less requirement for a repeat blood patch. ■

Cesarean Section Boosts Venous Thromboembolism Risk Ninefold

BY MITCHEL L. ZOLER
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OTTAWA — Women whose infants were delivered by a cesarean section had a nearly ninefold higher risk of developing a postpartum venous thromboembolism, compared with women who had a vaginal delivery, based on a review of more than 80,000 deliveries in Canada during a 6-year period.

In addition, the median time to the onset of symptoms from venous thromboembolism (VTE) was 5 days after delivery, a time when most of the women had already been discharged and were home.

"It's therefore important to educate women about the signs and symptoms of VTE so that they can get timely medical care and reduce the risk of morbidity and mortality from VTE," Dr. Tannys Vance said at the annual clinical meeting of the Society of Obstetricians and Gynaecologists of Canada.

The study also found that the overall rate of VTE in all postpartum women was 0.05%, similar to the rate in previously reported studies from other populations.

But before now there were few data on the incidence in women after cesarean sections, compared with those

who had vaginal deliveries, said Dr. Vance, an ob.gyn. at the University of Alberta, Edmonton.

The study reviewed records for 80,365 women who gave birth at any of five hospitals in the Edmonton region during January 1999–June 2005.

Dr. Vance and her associates identified 39 confirmed episodes of VTE that occurred within 3 months of delivery. The most common presentations were deep vein thrombosis (13 cases), pulmonary embolism (12 cases), and pelvic vein thrombosis (12 cases).

The average age of these women was 29 years. The median time of diagnosis was 9 days after delivery, a median of 4 days after symptoms first appeared.

The incidence of VTE following a cesarean section was 0.14%, compared with a 0.026% rate following vaginal delivery. Translated into an odds ratio, VTE after surgical delivery was 8.9 times more likely than after vaginal delivery, she said.

Other factors that significantly boosted the risk of VTE included hospitalization before delivery, bed rest before delivery, a history of peripartum blood transfusions, a history of thrombophilia, proteinuria occurring after 20 weeks' gestation, and multiple gestations. ■