associated with cesarean section, then what benefit is there for the term or postterm fetus?

Howard J. Birenbaum, M.D.

Division of Neonatology
St. Agnes Hospital
900 Caton Avenue
Baltimore, Maryland 21229

Reply to Birenbaum

To the Editors:

For the year 1982 at Kaiser Hospital, Los Angeles, California, the overall cesarean section rate was 18.3%—10.9% primary and 7.4% repeat. During this period there were 4,330 deliveries. The small number of patients (42) receiving amnioinfusion therapy did not and would not be expected to change the cesarean section rate. As stated in the article, “The effect on fetal outcome and cesarean section rate can only be conclusively determined in a randomized prospective study.” However, in the prolonged deceleration group, five of the 14 patients had their emergency cesarean sections cancelled in the operating room and subsequently had normal vaginal delivery. Scalp pH determinations are not done for variable decelerations at our institution. Any fetus who was deemed to be in distress by the criteria listed in the article was treated by prompt cesarean section. The amnioinfusion provides a fluid cushion to relieve cord and/or placental compression, thereby restoring the fetal heart rate pattern to normal. Hence, it seems clear that this is relief of distress and not merely a hiding of the signs of distress.

The sole intent of this article is summarized in its last paragraph. “This preliminary study suggests that saline amnioinfusion therapy is a logical, safe, simple, and effective therapy for the relief of variable and prolonged decelerations that do not respond to conventional therapy.”

Fred S. Miyazaki, M.D.

Department of Obstetrics and Gynecology
Kaiser-Permanente Medical Center
Los Angeles, California 90027

Effect of delivery on very low–birth weight breech infants

To the Editors:

I read with interest the article by Main and associates (Main, D. M., Main, E. K., and Maurer, M. M.: Cesarean section versus vaginal delivery for the breech fetus weighing less than 1,500 grams. AM. J. OBSTET. GYNECOL. 146:580, 1983) in regard to the outcome of infants who weigh less than 1,500 gm delivered vaginally as compared to cesarean section in the case of breech presentation.

I wonder whether the authors considered the duration of rupture of membranes or the duration of labor on the incidence of intraventricular hemorrhage regardless of how the infants were delivered.

If there was a positive correlation, there might be significance to infants of more than 33 weeks’ gestation in whom respiratory distress syndrome is not as likely to be a complication of prematurity but in whom we continue to see intraventricular hemorrhage.

Howard J. Birenbaum, M.D.

Division of Neonatology
St. Agnes Hospital
900 Caton Avenue
Baltimore, Maryland 21229

Reply to Birenbaum

To the Editors:

We appreciate Dr. Birenbaum’s interest in our study of method of delivery as it relates to outcome in very low–birth weight breech infants. We are aware of the current great interest in the role of obstetric factors in the development of neonatal periventricular hemorrhages. The two most common variables cited (after cesarean versus vaginal delivery) are duration of labor and duration of rupture of membranes. Our study design did not enable us to address these issues adequately, and, indeed, without careful analysis for the multiplicity of variables involved, such a study could be misleading.

Most of the studies relating intrapartum management of very low–birth weight vertex or breech infants to neonatal intracranial hemorrhages are presented in the pediatric literature and suffer from a lack of sophistication in the analysis of obstetric management. For example, is it fair to compare infants who were delivered without labor (the vast majority for maternal hypertensive diseases and/or intrauterine growth retardation) to those with “idiopathic” premature labor? Among infants who were delivered with labor, many will have had at least a trial of tocolytic therapy. At what point during therapy does the clock start for measuring length of labor? Women with tocolytic failures are also less likely to have received glucocorticoids, which some authors have noted to be associated with a decreased incidence of central nervous system hemorrhage. Length of subdivisions of labor (e.g., second stage) may be more important than total length of labor. Although the strength of contractions varies greatly from labor to labor, we have yet to see any data based on Montevideo units or some other attempt at quantification. The ability of the fetus to withstand labor, as evidenced by fetal heart rate monitoring, may be an important additional variable. The time to cord clamping and, hence, neonatal blood volume are also expected to influence the incidence of intracranial bleeding. Combined prospective obstetric and pediatric studies are needed to address these important issues.

Denise M. Main, M.D.
Elliott K. Main, M.D.

Jerrold R. Golding Division of Fetal Medicine
Department of Obstetrics and Gynecology
Hospital of the University of Pennsylvania
3400 Spruce Street
Philadelphia, Pennsylvania 19104