NEONATAL MORBIDITY AND MORTALITY FOLLOWING COMBINED VAGINAL AND CESAREAN DELIVERIES IN A TRIPLET PREGNANCY AT 31 GESTATIONAL WEEKS

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SUMMARY

Objective: To present details of neonatal morbidity and mortality following combined vaginal and cesarean deliveries in a triplet pregnancy at 31 gestational weeks.

Case Report: A 33-year-old woman, gravida 3, para 1, was referred to our hospital for delivery after tocolytic failure in a triplet pregnancy at 31 gestational weeks. Vaginal delivery was allowed following verification of the vertex position of all three fetuses by transabdominal ultrasonography. The first two babies were delivered vaginally with an interval of 4 minutes. The third baby was delivered by cesarean section due to fetal distress and cervical contraction 38 minutes after the delivery of the second baby, and had Apgar scores of 1 and 7 at 1 and 5 minutes, respectively. All babies developed respiratory distress syndrome. The third baby suffered additionally from necrotizing enterocolitis, necrosis and perforation of the bowel, periventricular leukomalacia, and impairment of the liver and kidneys and died 2 weeks after delivery. The first two babies were discharged uneventfully about 1 month after delivery.

Conclusion: This case shows that, in multiple pregnancies, an interdelivery interval longer than 30 minutes may be associated with an unfavorable outcome even after cesarean delivery. We suggest that prompt delivery should be considered when a high interdelivery interval occurs, and neonatal morbidity and mortality should be included in the parents’ counseling in the management of vaginal delivery of triplet pregnancies. [Taiwanese J Obstet Gynecol 2005;44(3):276–277]

Key Words: cesarean section, triplet pregnancy, vaginal delivery

Introduction

The incidence of triplet pregnancies has increased in recent years due to the progress of assisted reproductive techniques [1–4]. However, triplet pregnancies carry a higher risk for perinatal morbidity and mortality than twin and singleton pregnancies [3,5]. Although vaginal deliveries in triplet pregnancies are practicable, an emergency cesarean section may be necessary if there is a change in the presenting part of the fetuses or a prolonged interdelivery interval. To our knowledge, combined vaginal and cesarean deliveries in triplet pregnancies have not previously been described. Here, we present details of neonatal morbidity and mortality following combined vaginal and cesarean deliveries in a triplet pregnancy.

Case Report

A 33-year-old woman, gravida 3, para 1, was referred to our hospital for delivery after tocolytic failure in a triplet pregnancy at 31 gestational weeks. There was no maternal systemic disease. Cervical dilation of 8 cm was noted when she was admitted. A decision for vaginal delivery was initially made, following verification of the
vertex position in all three fetuses by transabdominal ultrasonography. The first two babies were delivered smoothly. The first baby, a female, was delivered in a vertex position, with a body weight of 1,392 g, a body length of 38 cm, and Apgar scores of 8 and 9 at 1 and 5 minutes, respectively. The second baby, a male, was delivered in a breech position 4 minutes after delivery of the first baby, with a body weight of 1,520 g, a body length of 41 cm, and Apgar scores of 7 and 8 at 1 and 5 minutes, respectively. Fetal distress and cervical contraction were noted during the interval of 38 minutes between the second and third babies. An emergency cesarean section was immediately performed to deliver an asphyxic male baby in the breech position. His body weight was 1,472 g, body length was 39 cm, and Apgar scores were 1 and 7 at 1 and 5 minutes, respectively. All three babies developed respiratory distress syndrome and were admitted to the neonatal intensive care unit. Necrotizing enterocolitis, necrosis and perforation of the bowel, and impairment of the liver and kidneys in the third baby were the consequences of hypoxia, even though emergency cesarean section was performed. The present case indicates that an interdelivery interval longer than 30 minutes may be associated with poor fetal prognosis in triplet pregnancies. We suggest that prompt delivery should be considered for an interdelivery interval longer than 30 minutes, and neonatal morbidity and mortality should be included in parents’ counseling regarding vaginal delivery of triplet pregnancies.

Discussion

Wildschut et al compared planned vaginal birth and planned abdominal birth in triplet pregnancies and recorded severe neonatal morbidity and mortality [6]. They found that respiratory distress syndrome was the most common cause of neonatal morbidity and mortality in the two groups, and concluded that gestational age at birth is the main predictor of mortality and morbidity in preterm infants. Respiratory distress syndrome is common in premature infants, especially when the gestational age at birth is less than 32 weeks [7]. All three babies in this report were delivered at 31 gestational weeks and suffered from respiratory distress syndrome. This complication was most probably caused by prematurity rather than the method of delivery in our case.

The favorable time interval between deliveries of twin infants has been suggested to be 15 minutes and, at worst, not more than 30 minutes [8]. However, a time restriction for delivery interval between the first and second infants is no longer regarded as necessary if there is continuous fetal and uterine monitoring [9,10]. There are no reports concerning delivery intervals among triplet pregnancies. In the present case, there was a time interval of 4 minutes between the first two babies and an interval of 38 minutes between the last two. The necrotizing enterocolitis, necrosis and perforation of the bowel, and impairment of the liver and kidneys in the third baby were the consequences of hypoxia, even though emergency cesarean section was performed. The present case indicates that an interdelivery interval longer than 30 minutes may be associated with poor fetal prognosis in triplet pregnancies. We suggest that prompt delivery should be considered for an interdelivery interval longer than 30 minutes, and neonatal morbidity and mortality should be included in parents’ counseling regarding vaginal delivery of triplet pregnancies.

References