

Safety of vaginal breech delivery

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Breeches are more common at the end of the second trimester of pregnancy than at near term, factors other than gestational age that appear to predispose on breech presentation include uterine relaxation with multiparity, multiple fetuses, hydramnios, oligohydramnios, hydrocephalus, anencephalus, previous breech delivery, uterine anomalies and tumors in the pelvis. Implantation of the placenta in either cornuel-fundal region of the uterus has been suspected to be a predisposing factor to breech presentation.¹ In Europe, in 1970, 11.6% of breech presentation were delivered by cesarean section (CS) and this has increased to 79.1% by 1985 as the obstetrician recommended CS for breech delivery.² In Salmaniya Medical Complex (SMC), Manama, Bahrain, there were 13,806 deliveries in the period of January 1998 to January 2001. We conducted a retrospective study to obtain the incidence of breech presentation, to determine weather a set of clinical factors could predict successful vaginal delivery in breech presentation and to compare the maternal and neonatal outcome according to the mode of delivery.

This is a retrospective study performed on 203 singleton pregnancies with breech presentation at term >37 weeks gestation delivered. The following cases were excluded: preterm breech, multiple pregnancy, intra-uterine death, placenta previa, and fetuses with major congenital anomalies. It was thought that these cases might affect the mode of delivery and its success. From 203 women, only 166 women were allowed to attempt the trial of vaginal birth. In these women, the only factor to determine the possibility of vaginal delivery was normal progress during the first stage without secondary arrest or signs of fetal distress. The remained 47 women advised elective SC in view of anticipated difficulties as fetopelvic disproportion, previous CS, bad obstetric history, macrosomia, severe oligo or polyhydramnios and severe intrauterine growth retardation. The women wishes concerning mode of labor also played a very important part in making decision. The maternal variables included maternal age, which was subdivided into <35 years and ≥35 years. The parity was subdivided into nullipara, multipara and grand multipara of more than 5. The maternal and neonatal early morbidity and mortality were submitted and analyzed in this study. The maternal outcomes were third and fourth degree perinatal tear, postpartum hemorrhage, wound infection,

wound rupture, puerperal pyrexia, urinary tract infection and thromboembolic disease. The neonatal outcomes were as follow, intracranial injury, wide spread bruising, intrapartum stillbirth, neonatal death, low apgar scores of ≤7 at 5 minutes requires for neonatal ventilation, jaundice, convulsion and admission to special care baby unit (SCBU). The outcomes were studied during the early first week of postpartum period. During the study period, the total number of deliveries in SMC were 13,806, whereas 592 were breech delivery giving the incidence of 4.3%. The singletons breech deliveries at term were 203, which have been studied, 166 were given a trial of vaginal breech delivery, while 37 were planned to deliver by elective CS. Successful vaginal delivery was achieved in 120 cases (72.3%, were 46 cases (27.7%) failed to deliver vaginally and required emergency CS. The effect of maternal characters in the form of maternal age and parity had been studied, the mothers who were above 35 years had less incidence of successful vaginal delivery (6.9%) than maternal age below 35 years old (7.5%), however this differences were statistically not significant. Maternal parity was studied and show higher incidence of successful vaginal delivery among grand multipara (82%) than nullipara (52%), this relation found to be statistically significant, $\chi^2=14.755$, $p=0.0006250$, degree of freedom=2.

The maternal and neonatal outcomes were studied in relation to mode of delivery, the incidence of neonatal morbidity was higher among emergency CS (8.7%) than successful trial of vaginal delivery (6.8%) and elective CS group.^{5,4} There was no neonatal death and the majority of neonatal complication occurred in emergency CS group (8.7%) than elective CS group (5.4%) while vaginal delivery group shows 6.8% of neonatal morbidity. Most of the cases where admitted to SCBU for observation, which did not necessitate longer stay (more than 4 days). There were only one case with neurological deficit in the forms of Erbs palsy, all neonatal complication resolved by the time of discharge, there were no maternal or neonatal mortality. The maternal complication found to be higher among elective CS group (0.8%) as compared to emergency CS (6.5%) while the least in vaginal delivery group (1.6%) only. The maternal complication was mainly due to pyrexia with infection, which required longer hospital stay and antibiotics.

There have been always debates in the method of delivering baby in breech presentation. A review of literature shows vaginal delivery for breech to be safe in well-selected cases.^{3,4} While the critical review of literature concluded that there may be an increase in neonatal morbidity and mortality in

planned vaginal delivery group.⁵ A comparative study was carried out by Gifford et al⁶ and found a successful vaginal delivery in 74% of patients. This was comparative to our study, where the successful vaginal delivery rate was 72.3%. Our observation shows that the increase in maternal age might have adverse influence in successful vaginal breech delivery, however the association in our study failed to reach a statistical significance. Many obstetrician consider parity as an important criterion for selection of parturient to deliver vaginally, in our study, grand multipara ($p>0.5$) had a significant higher successful rate than nullipara group. The increase in maternal parity was a positive influence in successful vaginal delivery. This could be explained by the fact that, the history of previous successful vaginal delivery might affect the obstetrician decision regarding the choice of delivery. The pelvis of multipara has been already tested by the previous vaginal deliveries. Kayam et al⁷ his study did not show any increase in maternal or neonatal morbidity rate attributable to vaginal delivery. Iron et al⁸ found significantly lower maternal complication in planned vaginal delivery than elective CS and there was no differences in neonatal morbidity between the planned vaginal delivery and the elective CS group. Thropo-Beeston et al,⁴ had a large retrospective study on 3447 singleton breech term fetus and concluded that good neonatal outcome with elective CS group than vaginal delivery. This study corresponds to our result on neonatal morbidity; it can be explained that the important issue to be consider when planning vaginal delivery includes careful selection of patient, obstetrical experience and judgment of intrapartum attendant. Although the recommendation now to do elective CS for flexed or complete breech singleton. We suggest that a trial of vaginal breech delivery is more likely to be successful if both mother and baby are of normal proportion with presentation either frank or complete and clinically adequate pelvis with no fetopelvic disproportion, the presence of an experience team of obstetrician, anesthetist and pediatrician in labor room may be more important than the planned mode of delivery.

A trial of vaginal delivery in carefully selected patients with breech presentation at term might be safe procedure that was successfully completed in almost 72.3% of cases in our experience. In our retrospective study we found that, low maternal parity and increase maternal age have a negative influence on maternal progress of labor.

Received 21st November 2003. Accepted for publication in final form 12th April 2004.

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Arteriovenous fistulas for hemodialysis. Patency rates and complications

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In the last 20 years, a rapid increase in the number of hemodialysis patients is seen.¹ This situation was constituted by the scientific improvement causing a longer life expectancy in the chronic renal failure cases. For this reason, longer-lasting vascular access interventions are needed. Brescia-Cimino type distal interventions are used as the first choice in patients undergoing arteriovenous fistula (AVF) operations. In cases of thrombosis of these fistulas, more proximal AVF's are performed. If a patient's chances of performing autogenous AVF are consumed, synthetic materials may be used. In the hemodialysis-dependent patients, Brescia-Cimino type AVF's have been considered to be the most convenient procedure from 1966 when it was performed for the first time.¹ Due to repeated venous interventions, it is sometimes difficult to find a proper vein to form an AVF although a proper artery can be found easier. Internal or external shunting may be necessary. However, the probability of facing with significant complications due to use of synthetic grafts is high.² In this study, we aimed to show the details of the surgical technique we used and the possibility of constituting fistula without using synthetic graft.