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Mode of Delivery and Maternal Outcome in Breech Presentation

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Abstract

Background : Breech presentation is the most common form of malpresentation and is associated with perinatal and maternal morbidity. The aim of this study was to compare maternal outcome in women delivered vaginally to those delivered by cesarean section.

Methods : This prospective study was conducted in Department of Obstetrics & Gynaecology, SMS Medical College, Jaipur. In this study group 100 women with breech presentation were included who were studied with respect to their gestational age, birth weight, type of breech, mode of delivery and maternal outcome.

Results : Out of 100 women of breech presentation 60% delivered by cesarean section and 40% women by vaginal delivery. Maternal complications were more in women delivered by cesarean sections and less in vaginally delivered women i.e. 10%. p-value was 0.034, which was statistically significant. There was no maternal mortality noted.

Conclusion : The short term maternal morbidity was higher in women delivered by cesarean sections than in vaginally delivered women. So vaginal delivery is still a safe option in breech presentation, when conducted by skilled Obstetrician and with proper selection.

Keywords: Breech presentation, vaginally, Maternal complications.

Introduction

Breech presentation is a longitudinal fetal lie in which the fetal podalic pole consisting of the buttocks,foot or the knees is the leading pole at pelvic brim. Its incidence is around 25% before term and reduces to 4% at term. The reason for this reduction in incidence is due to spontaeneous version. Any factor which prevent this version result in breech at term. Breech presentation is associated with high perinatal and maternal morbidity than cephalic presentation.

Breech presentation was associated with several risk factors such as nulliparity, oligohydramnios, hydrocephaly, anencephaly, previous breech presentation, placenta previa, preterm gestation, uterine abnormality, older maternal age, multiple gestation . It is also associated with trauma released injury during birth and maternal morbidity.

The aim of this study was to compare maternal outcome in vaginally delivered women to those delivered by cesarean section in breech presentation.

Material And Methods

It was a prospective, observational, longitudinal study conducted in the Department of Obstetrics and Gynaecology, SMS Medical College, Jaipur.

In this study total 100 pregnant women were enrolled, inclusion criteria were singleton pregnant women with breech presentation at term, who gave written consent and were willing to participate in study. Those with intrauterine fetal death were excluded.

A thorough relevant history, general physical and obstetrical examination was performed. Routine antenatal blood, serum, urine investigations was performed, if not done earlier. Ultrasound examination in was done to know type of breech, attitude of foetal head, nuchal arms, and estimated foetal weight.

Vaginal delivery was allowed in cases where there was reassuring CTG at admission, estimated foetal weight is not more than 3.5 kg, with no foetopelvic disproportion, placenta praevia and presentation as frank or complete breech.

Patient selected for vaginally delivery was carefully monitored and assisted breech delivery was conducted in presence of pediatrician with resuscitation kit. Caesarean section was carried out as an elective or emergency basis of placenta previa, foetal distress, previous caesarean section, footling breech, oligohydraminos, foetopelvic disproportion, cord prolapse, failure to progress.

Maternal outcome was evaluated by presence of PPH, cervical & vaginal tear, febrile morbidity, septicaemia, and need for blood transfusion. Mother & babies was followed till discharge from hospital and neonatal mortality and morbidity & maternal morbidity will be noted.

Results

Table 1: Distribution of Cases According to Mode of Delivery

Mode of Delivery	No.	%
Normal Vaginal Delivery	40	40.00
Cesarean Section	60	60.00
Total	100	100.00

Among 100 cases, 60% women delivered by cesarean section and only 40% by vaginal delivery.

Table 2: Association of Mode of Delivery With Maternal Complications

Maternal Complications	Normal Delivery		Cesarean Section	
	No.	%	No.	%
Present	4	10.00	18	30.00
Absent	36	90.00	42	70.00
Total	40	100.00	60	100.00

p = 0.034

Maternal complications were more in cases delivered by cesarean section (30%) and less in vaginally delivered cases (10%). p-value was 0.034, which was statistically significant and showed that mode of delivery influences maternal complications.

Table 3: Maternal Complications (n = 100)

Mode of Delivery	Complications	No.
Vaginal Delivery	Cervical Tear	1
	PPH	1
	Haematoma	1
	Febrile Morbidity	1
Total		4
Cesarean Section	Febrile Morbidity	6
	Wound Gape	4
	PPH	5
	Wound Infection	3
Total		18

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Among 100 cases, 22% cases had different types of maternal complications but there was no maternal morbidity noted. Out of 100 cases of breech, 18 women had maternal complications in cesarean section and only 4 in vaginally delivered. Common complication present in cesarean section were febrile morbidity, wound gape, PPH and wound infection and in vaginal delivery cervical tear, PPH, haematoma, febrile morbidity were present.

Among the various indication of cesarean section, most common was for maternal request and oligohydramnios.

Discussion

The maternal complication and fetal morbidity are higher in case of breech presentation compared to vertex presenting fetus. Maternal outcome of breech presentation in this observational study has been compared with other studies. In our study, 60% women delivered by cesarean section and only 40% by vaginal delivery. Similar results was also reported in study conducted by Karning RK et al (2017)* and Goffinet F et al (2006)*.

Maternal complications were more in women delivered by cesarean section and less in vaginally delivered women. Similar results also reported by Schutte JM et al (2007)* and Moodley J et al (2010)* and also in Karning RK et al (2017)*. On the contrary, study conducted by Hannah ME et al (2000)*, term breech trial there was not much difference in maternal morbidity between 2 groups of planned vaginal delivery versus planned cesarean section.

In Karning RK et al (2017)* study maternal complication noted were cervical tear, atonic PPH, haematoma in vaginally delivered women and febrile morbidity, wound gape, inverted incision and PPH in cesarean delivered women which were similar to our study.

Conclusion

Based on a present study it can be concluded that maternal short term morbidities was higher in women who delivered by cesarean section compared to those who delivered vaginally. Thus when assisted vaginal delivery is accomplished after proper selection and counselling for women with breech presentation, cesarean section can be avoided. In countries where majority of cesarean section for breech presentation are done in emergency a trial of vaginal delivery yield comparable results.

Therefore, it is concluded that balanced decision about mode of delivery on a case by case basis, as well as conduct training regular drills of assisted breech delivery will go on a way to optimize the outcome of breech presentation in countries like ours.

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