

VAGINAL DELIVERY VERSUS CESAREAN SECTION; BIRTH OUTCOME IN PRIMI GRAVDAE BREECH

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ABSTRACT... Objective: It is to compare neonatal morbidity in terms of birth trauma, respiratory distress syndrome, APGAR score in Primigravida with breech presentation delivered vaginally and emergency cesarean section. **Design:** Cross-sectional comparative study. **Place and Duration of Study:** Obstetrics and Gynaecology Unit-I, Bahawal Victoria Hospital, Bahawalpur from 1-5-2007 to 30-4-2008. **Patients and Method:** The study was carried out on all Primigravida with breech presentation reported through emergency in labour delivered vaginally and by emergency cesarean section. The variable analyzed were birth trauma, respiratory distress syndrome and APGAR score at 1 and 5 minutes. Students-t test was used for comparison between means and chi square test for comparison between percentages. Significance was taken at $P < 0.05$. **Results:** It was found that mean APGAR score at 1 and 5 minutes is 7.31 and 9.066 in vaginal and 8.533 and 9.644 in cesarean group. Respiratory distress syndrome is more in cesarean (4.4%) than vaginal group (2.2%). Observed neonatal trauma is more in vaginal group (6.7%) than cesarean section (2.2%). **Conclusion:** Neonatal morbidity appears to be more in vaginal breech delivery than cesarean section for Primigravida with breech presentation at term.

Key words: APGAR Score, Respiratory Distress Syndrome, Neonatal morbidity.

INTRODUCTION

When fetal buttock occupy the lower part of uterus, it is referred to as breech presentation¹. The incidence of breech presentation varies with gestational age being approximately 14% at 29-30 week and 2.2-3.7 at term (depending on the use of external cephalic version), going on overall figure 3.4%².

Breech is the most common term of malpresentation

carries on increased risk for both mother and fetus³.

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It is associated with increased incidence of operative deliveries, due to causes that lead to breech presentation or fear of being stuck of after coming head⁴.

Vaginal breech delivery or cesarean section in labour was associated with small but unequivocal increase in the short term mortality and morbidity. However long term outcome was not influenced by the mode of delivery⁵. The optimum mode of delivery of breech in order to minimize the risk to both mother and baby is a matter of great concern. Vaginal delivery still carries the risk of cord prolapse and extended arms at delivery as well as difficult delivery of head. The risk may be approximately 1-2%².

This study was conducted due to regular turn over of primigravidas with breech presentation in emergency in our unit. There is an ongoing controversy while making the decision about their mode of delivery that is vaginal or by emergency cesarean section when they are already in labour.

PATIENTS AND METHOD

This cross-sectional study was carried out on 180 primigravidas with breech presentation delivered vaginally and by emergency cesarean section from 1-05-2007 to 30-04-2008 reported in obstetrics & Gynaecology Unit-I, Bahawal Victoria Hospital, Bahawalpur.

Criteria on the basis of which patients were included was,

- Primigravidas with breech presentation.
- Gestational age more than 37 week.
- Cases already in labour.

After taking informed consent each cases offered two folded slips having letter 'A' & 'B' to pick up for random allocation. Group 'A' those who delivered vaginally and group 'B' those who delivered by emergency cesarean section. Hospital based data was collected from patient's records according to structured proforma. The variables analyzed were respiratory distress syndrome, APGAR score at 1 and 5 min and long bone fracture in neonates.

Data were analyzed by statistical program SPSS version 10, with student-t test for comparison between means and chi-square test for comparison between percentages. Significance was taken at $P < 0.05$.

RESULTS

Total 180 primigravidas with breech presentation divided into two groups 'A' and 'B' each having 90 cases were included in study. Early neonatal outcome with reference to study variables were noted and compared.

Regarding the APGAR score there is small difference in mean score noted at 1 of 5 minutes of both groups (table-I), but the results are statistically significant according to student's t-test. As actual difference between two means is more than standard error difference between two means.

	Mode of delivery	Mean	S.D	P.value
Apgar score at 1 min	Vaginal	7.311	2.15	0.023
	Cesarean sect.	8.533	1.52	
Apgar score at 5 min	Vaginal	9.07	1.57	0.147
	Cesarean Sect.	9.64	1.17	

Observed respiratory distress syndrome is more in neonates who delivered by emergency cesarean section and less in vaginally delivered group (table-II). But the results are not statistically significant as P-value is 0.682.

Neonatal trauma which was noted in terms of long bone fracture is observed to be more in vaginal group (table-III). Results are statistically non significant as P-value is 0.118.

Table-II. Respiratory Distress Syndrome.

Mode of Delivery	Respiratory Distress		Total	P-value
	Yes	No		
Vaginal	2 (2.2%)	88 (97.7%)	90	0.682
Cesarean	4 (4.4%)	86 (95.5%)	90	
Total	06	174	180	

Table-III. Long bone fracture.

Mode of Delivery	Fracture		Total	P-value
	Yes	No		
Vaginal	6 (15.6%)	84 (8.44%)	90	0.118
Cesarean	1 (1.11%)	89 (98.8%)	90	
Total	7	173	180	

DISCUSSION

It is evident that statistical data of my study are in general agreement with those reported from other recent large studies of breech presentation. Although the absolute comparison is difficult as number of patients, pre-delivery variables and method of study and projection of problems differ in different studies or countries.

It has long been thought that vaginal breech delivery is associated with increased neonatal morbidity and mortality compared with cesarean section. This observation has been a topic of considerable debate over past few years⁶.

Some clinician recommend a policy of cesarean section for breech presentation at term based on result of non-randomized studies, anecdotal experiences and medicolegal concerns^{7,8,9}. Other clinicians who are experienced with vaginal breech delivery have continued to recommend planned vaginal birth for selected women with a view that it is associated with lower morbidity for mother, require fewer health services and less costly^{10,11}.

Regarding the study variables, although the difference in mean APGAR score is small in both groups but results are

statistically significant. It is same as described by Abu-Heija et al who describes low APGAR score similar in both groups¹². But Helson et al describes no statistically significant difference in neonatal outcome in vaginal birth and cesarean section¹³. It is not as an argument that breech delivery is without risk but to suggest that active involvement of experienced obstetrician and applying appropriate management protocol. Vaginal breech delivery can achieve comparable safety for infants⁶.

As long as the birth trauma is concerned the results of our study is statistically significant ($P < 0.05$) and is comparable to Gilbert et al who describes 3-4 fold increased risk of birth and respiratory problems in vaginal breech deliveries as compared to cesarean section⁶. Krupitz et al also describes neonatal morbidity higher (0.5%) in attempted vaginal delivery than for primary cesarean section.

The observed respiratory distress syndrome in our study is more in cesarean section group, although results are not statistically significant. This is probably because of anesthetic drugs used during surgery.

The objective of this study was to compare the neonatal morbidity in primigravida regarding mode of delivery. The basic object of this study is to minimize the risk and maximize the benefit to fetus for breech delivery and this was achieved by cesarean section. Libeman in his study also explains the same thing that level of risk for mother and child in primigravida with term singleton breech suggests the cesarean as preferred route of delivery¹⁵.

CONCLUSION

Vaginal breech birth can be associated with higher risk of perinatal mortality and short term morbidity than cesarean section. Even the trial of labour in appropriate settings or deliveries by preemptive cesarean section had significantly increased neonatal mortality and morbidity when compared with cesarean section, which suggests that these patients might best be delivered by cesarean section to avoid these adverse outcome.

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PREVIOUS RELATED STUDIES

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