ORIGINAL PROF-2157

BREECH PRESENTATION AT TERM;

FETAL OUTCOME IN PLANNED CESAREAN SECTION VERSUS PLANNED VAGINAL BIRTH

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ABSTRACT…..Objective: To compare the fetal outcome of elective cesarean section with elective vaginal birth for Term Breech presentation in terms of APGAR Score, Respiratory Distress Syndrome, Admission in Neonatology Unit and Neonatal mortality. **Design:** Quasi experimental study. **Setting:** Department of Obstetrics & Gynaecololgy Bahawal Victoria Hospital, Bahawalpur. **Methods:** Total 120 cases were included in the study divided into two groups, each having 60 fulfilling the inclusion criteria. Group 'A' had those who delivered by planned cesarean and Group 'B' comprised those having planned vaginal delivery. **Results:** It was found that neonatal mortality was 3.33 in vaginal and 0 in cesarean group. Mean APGAR Score at 1 and 5 minute was 8.47 and 9.53 in vaginal and 8.58 and 9.62 in cesarean group. RDS was more in cesarean (5) than vaginal group (1.6). Admission in Neonatalogy Unit was more in vaginally delivered group (8.33) as compared to the cesarean section group (5). **Conclusion:** Planned cesarean delivery in breech presentation at term is associated with a reduction in neonatal mortality and morbidity as compared to the planned vaginal birth.

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

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INTRODUCTION

The breech presentation occurs when fetal buttocks or lower extremities present into maternal pelvis[1]. Infants born after breech presentation have increased perinatal mortality and high risk of neonatal complications[2]. The management of breech presentation in term pregnancy is highly controversial. It varies among different institutions or even clinicians in same institution[3]. Prematurity is the commonest cause of breech presentation, The incidence of breech is 6% at term. Breech presentation is associated with high incidence of operative delivery, either due to the cause which leads to the breech presentation, fetal distress or fear of stucking the aftercoming head[4]. Perinatal mortality and morbidity depends upon the mode of delivery. There is an in ongoing controversy while making the decision about their mode of delivery, either to go for trial of labour or plan elective cesarean section. Keeping the objective of better fetal outcome under consideration, this study has been conducted so as to make better choice.

METHODOLOGY

A Quasi experimental study was conducted at obstetrics and Gynecology Department at Bahawal Victoria Hospital from July 2010. A total of 120 patients were selected. Women were having ages between 17 and 35 years and singleton pregnancies with breech presentation. Patients with twin pregnancies, footling breech and having fetuses with congenital anomalies were excluded. Two groups were made, Group-A and Group-B, each comprising 60 patients. Group-A included the patients delivered by cesarean section and Group-B patients delivered vaginally. The patients reporting to Gynae Unit-I with breech presentation were selected for the study after explaining to them the purpose of the inquiry along with merits and demerits of the planned cesarean versus planned vaginal birth and after taking their written consent. The primary outcome was determined in terms of APGAR score, Respiratory distress syndrome, Admission in Neonatology Unit and early Neonatal death.

Data Analysis

Data was analyzed by using SPSS version 10. Frequencies for Respiratory Distress Syndrome, Neonatal mortality and admission in Neonatology Unit

were calculated while mean and standard deviation was determined for APGAR score in both the groups. All these figures were presented in tabulated form. Difference observed among different variables in both the groups was subjected to test of significance. For APGAR score being quantitative variable, test of significance used was t-test. There were three qualitative variables. i.e Respiratory Distress Syndrome, Neonatal mortality and Neonatal admission in Neonatal Unit. Chi-square and Yat's correction were applied as test of significance. P-value $\leq$ 0.05 was taken as significant.

RESULTS

Total 120 patients, divided into two groups "A" and "B", each having 60 patients. Group-A had those cases who delivered by planned cesarean section and Group-B comprised those who delivered by planned vaginal birth. Early neonatal outcome with reference to study variables in both the groups were noted and compared.

The results of my study showed high mortality in vaginal group while no mortality observed in the group delivered by cesarean section. However the results were not statistically significant as P-value i.e. 0.154 is $>$ 0.05.

Regarding respiratory syndrome, it was more in the neonates who delivered by cesarean section and less in vaginally delivered neonates. But results were not statistically significant as P-value is 0.309 which is $>$ 0.05.

There was a very small difference in mean APGAR score noted at 1 and 5 min in both the groups. Actual difference of two means was not more than calculated standard error difference between two means both at 1 and 5 min, so results were not statistically significant.

Admission in Neonatology Unit was more in the group delivered vaginally, however the difference in both the groups was not marked. The P-value is 0.464 which is $>$ 0.05 and is not significant.

	Group-A		Group-B	
	Yes	No	Yes	No
Neonatal Mortality	0 %	60 (100%)	2 (3.33%)	58 (96.6%)
Respiratony Distress Syndrome	3 (5%)	57 (95%)	1 (1.66%)	59 (98.3%)
Admission in Neonatology Unit	3 (5%)	57 (95%)	5 (8.3%)	55 (91.6%)

Table-I.

Yat's Correction = 0.258 *Chisquare value = 0.536*
P-value = 0.3.9 *P-value = 0.46*

	Group-A		Group-B		Actual difference b/w tow Means	Standard error difference b/w two means
	Mean	Standard Deviation	Mean	Standard Deviation		
APGAR score at 1 min	8.58	1.59	8.47	2.02	0.11	1.55
APGAR score at 5 min	9.62	1.26	9.53	1.59	0.09	1.74

Table-II.

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 but most of it is not statistically significant. This is probably because of small sample size, as randomized trials have very large study population. So, absolute comparison is difficult as number of patients, pre-delivery variables, obstetric care providers, technical sophistication, method of study and projection of

problem, differ in different studies, series or countries. Vaginal deliveries for breech presentation have long been a topic of debate[10]. Some clinicians recommended a policy of cesarean section for breech presentation at term based on results of non-randomized studies, anecdotal experiences and medico-legal concern[6,7,8].

Other clinicians who are experienced with vaginal breech delivery, have continued to recommend planned vaginal birth for selected women with a view that if it is associated with lower morbidity for mother, required fewer health services and less costly[9,10].

Neonatal mortality observed in my study in vaginally delivered group (2 out of 6) is high as compared to the cases delivered by planned cesarean section (0 out of 60). It is comparable with the study of Abu-Heiga et al who described two fold increased risk of neonatal mortality in vaginally delivered group as compared to cesarean section (3.5 in vaginal)[11].

In the study conducted by Hannah et al, the risk of combined outcome of perinatal mortality, neonatal mortality or serious neonatal morbidity with planned cesarean section compared with planned vaginal birth is 1.6% versus 5.0%[15] that is close to my results where I observed 3.33% neonatal mortality in vaginal breech delivery. The study by Asma Gul, conducted at Lahore General Hospital has 0% neonatal mortality in the cesarean group[12] that exactly correlates to my study, where no mortality was observed in this group. Regarding respiratory distress syndrome, although results of my study are not statistically significant but comparable to some large studies. Alarab M et al in his study observed 5 fold increase in respiratory distress syndrome following elective cesarean delivery. 2 Similar results are found in my study where 5 fold increase in neonatal respiratory morbidity is observed in cesarean section group. The study conducted by Kolas T et al resulted in 2 fold higher risk for pulmonary disorders for the neonates delivered by cesarean section[13], i.e a small difference as compared to my study. The neonatal respiratory problems are more common when the cesarean delivery is performed before the onset of spontaneous labour[14,15].

Herbst et al describes APGAR seore >7 at 5 min in 3.5% neonates in vaginal breech while 0% in cesarean section. While neonatal admission is 8.9% in vaginal and 4.0% in cesarean section. In my study, mean APGAR score in both the group is not very much different and admission in Neonatal Intensive Care Unit has almost the similar results i.e. 8.33% neonatal admission in vaginally delivered group while 5% in cesarean section group. In the study of Abu-Heija as well as in my study, similar APGAR score observed in both groups. The objective of my study was to compare the fetal outcome regarding mode of delivery in breech presentation at term. Planned cesarean section is better than planned vaginal birth for the term fetus in the breech presentation serious maternal complications are similar between the groups.

REFERENCES

1. Johnson R. **Malposition, Malpresentation and CPD.** In: Edmond D, editors. Dewhursts text book of obstetric and Gynaecology, 6th ed. Hongkong: MPG, 1999: 277-90.

2. Eide MG, Oyen N, Skjaeren R, Irgen LM, Bjerkedal T, Nilsen ST. **Breech Delivery and intelligence: A population - based study of 8,738 breech infants.** Obstet Gynecol 2005; 105:4-11.

3. Alarab M, Regan C, 0' Connel MP, Keane DP, 0' Herlihy C, Foley ME. **Singleton Vaginal Breech delivery at term: still a safe option.** Obstet Gynecol 2004; 103:407-12.

4. Hofmeyr. **Abnormal Fetal presentation and position. In: Chamberlain G, Steer P, editors. Turnbull's Obstetrics, 3rd ed.** London: Harcourt Publisher, 2001: 545-59.

5. Ahmed K, Malik A, Yousuf W. **Incidence of Cesarean Section for breech presentation of Lady Willingdon Hospital.** Ann KE Med Coll 2001, 7:99-101.

6. Cheng M, Hannah ME. **Breech delivery at term. A critical review of literature.** Obstet Gynecol 1993; 82:605-18.

7. Gifford DS. Morion SC, Fiske M, Kahn K. **A meta analysis of infant outcomes after breech delivery.** Obstet Gynecol 1995: 85:1047-54.

8. St. Saunder NJ. **Controversies: The mature breech should be delivered by elective cesarean section.** J Perinat Med 1996; 24:545-51.

9. Irion 0, Hisbrunner Almagbaly PH, Morabia A. **Planned vaginal delivery versus elective cesarean section: a study of 705 singleton 1 term breech presentation.** BJOG 1998:105:710-17.

10. Danielian PJ, Wang J, Hall MH. **Long-term outcome by method of delivery of fetuses in breech presentation at term: population based follow up.** BMJ 1996; 312:1451-3.

11. Abu-Heija AT, Ziadeh s, Obeidat A. **Breech delivery at term: do the perinatal results justify a trial of labour.** J Obstet Gynecol 1997; 17:258-60.

12. Gul A. **Management of singleton term breech in primigravida. Ann KE.** Med Coll 1999; 5:217-9.

13. Kolas T, Saugstad OD, Daltveit AK, Nilsen ST, Oian P. **Planned cesarean versus planned vaginal delivery at term: Comparison of new-born infant outcome.** American Journal of Obstet Gynecol 2006; 95:1538-43.

14. Morrison JJ, Rennie JM, Milton PJ. **Neonatal respiratory morbidity and mode of delivery at term: influence of timing of elective cesarean section.** BJOG 1995; 102:101-10.

15. Madar J, Richmond S, Hey E. **Surfactant deficient respiratory distress after elective delivery at "term".** Acta Paediatr 1999; 88:1244-8.

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Obstacles are those frightful things you see when you take your eyes off your goal.

Henry Ford (1863-1947)