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CAESAREAN SECTION IN BREECH PRESENTATION

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ABSTRACT

OBJECTIVES: To determine the impact of mode of delivery on perinatal maternal outcome in breech presentation. To scrutinize the causes of increasing incidence of caesarean section in breech presentation. **DESIGN:** Prospective study. **PERIOD:** The study was conducted in Department of Obstetrics and Gynaecology Unit I (PMC) Allied Hospital Faisalabad and completed in two years. **SUBJECTS & METHODS:** This study includes 5022 patients admitted in antenatal and labour ward, out of them 255 were with breech presentation, who were analyzed in detail with help of proforma. Final out come regarding mother and fetus was compared in both groups of vaginal and abdominal delivery. Ante-partum deaths and congenital anomalies were excluded. **RESULTS:** 103 (39.6%) patients were delivered by caesarean section much higher than Vertex (12%), 154 were delivered vaginally. Perinatal outcome was slightly higher in vaginal group. While maternal morbidity was significantly low in those delivered vaginally. **CONCLUSION:** We concluded that with goods antenatal care vaginal breech deliveries at term are relatively safe if selected on basis of set protocol and rising incidence of caesarean section in breech presentation can be reduced.

KEY WORDS: Breech, Caesarean section, Morbidity.

INTRODUCTION

Breech presentation comprises about 3 -4% of all fetuses at term being highest among mal-presentation. Incidence is more in preterm and decrease with increasing gestation, it should not be considered abnormal until late in pregnancy or if preterm labor starts.

The breech presentation may be associated with maternal or fetal abnormality or just a benign error of orientation, common association are, prematurity, congenital anomalies of fetus and uterus, Placenta praevia, contracted pelvis, multiple pregnancy.

Three types of breech are recognized, these indicate complications to be anticipated or their impact on mode of delivery.

Although it comprises only 4% of total deliveries but in breech presentation deserves great attention due to importance influence on the frequency of caesarean section with its attendant morbidity and mortality (Lazarov and Todorov 1995).

Breech presentation are associated with higher incidence of cord prolapse, fetal trauma and head entrapment. Maternal risk with vaginal breech delivery occurred mainly due to slower progress or unwise forceful attempts of delivery vaginally, but it was significantly higher in caesarean section. Even in caesarean section head entrapment had been reported.

In management of breech presentation option of

external cephalic version is available. Which when carried at term is a useful procedure for reducing breech presentation and its associated increased caesarean rate. But due to possible complication ECV should carry out under conditions which allows in immediate caesarean section or frequent follow up till delivering[3].

In most units a set protocol is followed to choose mode of delivery to minimize the complications.

MATERIAL & METHODS

This study involved all patents who were admitted in antenatal and labor ward from Aug 1996 to Aug 1998. Total 5022 enrolled in study including booked and un-booked cases.

Of these 255 with breech presentation were analyzed in detail regarding age, parity, gestational age, risk factor, correction of risk factor as anemia. Clinical and ultrasonographic examination for weight assessment, congenital anomaly, type of breech, placental localization and information used to decide mode of delivery. Cases select for vaginal delivery according to set criteria or did caesarean section either primary or secondary (and at the end maternal, perinatal morbidity and reasons of caesarean section noted. Induction of labor and breech extraction was only done in case of fetal demise.

RESULTS

The breech deliveries accounted for 5.07% of all deliveries. Of these 81 patients (31.7%) were booked and majority were un-booked. Out of these 154 (59.4%) were delivered vaginally and 101 (39.6%) by caesarean section and only 29 were elective caesarean section rest were done in emergency.

Neonatal outcome was compared by Apgar score at 5 minute and need of primary intubation and admission in neonatal ward. Fetal trauma was observed even in caesarean deliveries, fracture of femur in one and humerus in one and head entrapment in one preterum infant. The overall perinatal mortality was 2.9% among infants delivered vaginally and 1.09% in caesarean deliveries. All were un-booked cases.

Table-I. Relationship of parity with breech presentation

Parity	No of Patients	%age
Primigravida	86	33.7
Gravida 2-3	90	35.2
Gravida 4-6	50	19.2
Parity above 6	29	11.3
Total	255	100

Majority of patient were of low parity

Table-II. Incidence of congenital anomalies

Congenital Anomaly	No of Patients	%age
Hydrocephalus	14	51.8
Meningocele	6	22.2
Microcephaly	2	7.4
Down's syndrome	3	11.1
Polycystic kidneys	1	3.7
Achondroplasia	1	3.7
Total	27	10.5

Congenital anomalies are commonly found in breech infants

Table-III. Associated with placenta praevia

Placenta preavia	No of Patients	%age
Placenta praevia	12	4.7

Placenta praevia is commonly associated with breech presentation.

Table-IV. Intra operative uterine findings

Abnormalities	No of Patients	%age
Bicornuate uterus	8	7.9
Fibroid uterus	4	3.9

Uterine anomalies were found in 8 cases of caesarean deliveries.

Table-V. Elective of emergency caesarean section

Caesarean section	No of patients	%age
Emergency	72	71.3
Elective	29	28.7

Only 28.7% were elective caesarean section.

Neonatal outcome was defined after excluding congenital malformed and intra uterine deaths. Overall morbidity was 10.9% in vaginal group and 9.8% among infants delivered by caesarean section.

Table-VI. Incidence of caesarean section in different groups of patients

Parity	No of pts	%age
A. Secondary caesarean section due to fetal distress or failure to progress	25	24
B. Primary caesarean section due to breech itself	46	45.5
C. Primary caesarean section due to added complication	30	29

Breech presentation is a common indication of caesarean section

Table-VII. Prenatal morbidity

MODE OF DELIVERY

Complications	Vaginal delivery		Caesarean section			
	No of Pts	%age	Group A	Group B	Group C	%age
Fractures	3	2.3	1	1	-	2.1
Hematoma	1	0.72	-	1	-	1.09
Erb's palsy	2	1.45	-	-	-	-
Apgar store>7 at 5 minutes	10	7.0	2	1	3	6.5
Primary intubation	7	5.1	2	1	2	5.4
Severe asphyxia requiring admission in neonatal ward	6	4.4	1	1	2	4.3

Table-VIII. Maternal morbidity

Complications	Vaginal delivery		Emergency caesarean		Elective caesarean	
	No of pts	%age	No of Pts	%age	No of Pts	%age
Wound infection	2	1.29	6	8.3	-	-
Genital tract infection	2	1.29	-	-	-	-
Urinary tract infection	-	-	4	5.5	1	3.4
Endometritis	1	0.64	1	1.38	-	-
Chest infection	-	-	1	1.38	-	-
Surgical injury	-	-	1	1.38	-	-
Anemia	1	0.64	4	5.5	1	3.4

Table-VIII. Maternal morbidity

Complications	Vaginal delivery		Emergency caesarean		Elective caesarean	
Hysterectomy	-	-	2	2.7	-	-
D V T-	-	-	-	1	3.4	
Total	6	3.8	19	26	3	10.3

No maternal mortality seen during among breech presentation.

DISCUSSION

The study showed the impact of mode of delivery on perinatal and maternal outcome in breech presentation.

Incidence of breech presentation was found 5.04% significantly higher than reported incidence 3-4%[4], probably because study was done in a referral hospital which did not reflect whole population. In this study caesarean section ratio was 39%. Common indications for caesarean section were preterm labor, no spontaneous labor at 40 weeks, estimated weight <2.5kg and >3.8 kg. Footling breech, any other risk factor as previous caesarean section pregnancy induced hypertension[12].

Low birth weight breech infants have less cerebral hemorrhage and other complications after abdominal delivery while no benefits were found in infants with cephalic presentation with comparable weights[5]. We delivered preterm breech only when delivery was imminent on admission.

Parity is found unrelated with outcome and successful vaginal delivery was attained in all parities. And primiparity is not an absolute indication of caesarean section as suggested[6].

Patients with non vertex twin were delivered by breech extraction with good fetal outcome. Although controversy exists over its management some people advocate caesarean delivery[7].

The prime reason for caesarean section for second twin was cord prolapse and inability to turn and extract second twin[8]. But there was no evidence in post partum endometritis or neonatal sepsis[9].

Obstetrician had used sublingual glyceryl trinitrate or vertical incision in uterus for preterm infants to reduce difficulty in delivery of breech infants even in caesarean section. We performed lower segment caesarean section for all cases.

Overall perinatal morbidity was 10.9% in vaginal group and 9.8% in caesarean section group and it was lowest in women in which caesarean was performed just due to breech presentation. Neonatal morbidity was 7.6% among group C those had caesarean due to added problem. So it could not attributable to mode of delivery.

Maternal morbidity was higher in caesarean section group and significant in emergency operations as most were exhausted and anemic and vulnerable to surgical and anesthetic complications.

The risk was higher for preterm infants and among term infants it was not significant, more marked in un booked cases by either route. There is no firm reason to recommend caesarean section for breech in all cases.

The management of breech in labor and delivery is the measure of obstetrician and is more important in our setup where admissions are emergency and one has to proceed with vaginal delivery most of time so we need to learn, teach and fully understand how to manage labor, delivery in breech presentation[11].

A heightened awareness must be achieved regarding decision to perform first caesarean section. The residual impact a scarred uterus in 12 - 14% of women seen for delivery[11].

CONCLUSION

We favour a selective approach for mode of delivery in patients with breech presentation. It is to balance the

fetal morbidity associated with vaginal delivery, maternal morbidity and cost associated with caesarean delivery. We conclude that with good antenatal care vaginal breech deliveries at term are relatively safe if selected on basis of specific criteria and performed in specialized units.

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