BREECH PRESENTATION: AN OVERVIEW OF PATIENTS VISITING SOUTHERAN PUNJAB

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ABSTRACT

Objective. This study was conducted to determine incidence of breech presentation, etiology, mode of delivery and fetal outcome.

Methodology: Retrospective cohort study was conducted in Sheikh Zayed Medical hospital, Rahim Yar Khan from period of January 2013 to December 2015. 685 patients with breech presentation in Southern Punjab were included in our study. Demographic data like age, parity, gestational age and previous mode of delivery was determined. Type of breech presentation was checked by ultrasonography. Etiology was determined for breech presentation. Mode of delivery in present pregnancy was determined in the form of vaginal delivery and cesarean section. Fetal outcome was compared in both groups.

Results: Incidence of extended breech was higher 98.9%, where flexed breech was in 6.5% and footling breech was in 3.5% of cases. Most of cases with breech presentation was in primigravida (303) 44.2%, 277 (40%) were multi and grand multiparous, 8.6% with preterm breech, 28 women(4%) breech presentation was found in first twin, fetal anomalies were in 1.45%, uterine anomalies in cases and placenta previa in 03 patients. 173 (25.2%) were delivered by vaginal breech delivery and 512 (74.7%) were delivered by lower segment cesarean section. Perinatal morbidity and mortality was lower in cesarean section group as compared to vaginal delivery group. But statistically there was no significant difference.

Conclusion: Proper selection of patient for mode of delivery will be helpful in improving fetomaternal outcome. Regular drills in maternity units will enhance expertise and in the presence of skilled personals vaginal breech delivery will be safe mode of delivery.

Key words: breech presentation, vaginal breech delivery, lower segment cesarean section, fetal outcome.

INTRODUCTION

About 3-4% of all pregnancies have breech presentation at term. The percentage of breech presentation decreases with advancing gestational age from 22-25% prior to 28 weeks gestation to 7-15% at 32 weeks to 3-4% at term.[1] Predisposing factors for breech presentation include prematurity, uterine malformations, fibroids, polyhydramnios, placenta previa, fetal malformations (CNS, neck masses, aneuploidy) and multifetal pregnancy. Fetal abnormalities are observed in 17% of preterm breech deliveries and in 9 % of term breech deliveries. Perinatal mortality is increases 2 to 4 fold with breech presentation, regardless of mode of delivery. Deaths are most often associated with malformations, prematurity and intrauterine fetal demise.[1] Decision about mode of delivery is often based on personal experience or fear of litigation. Mode of delivery in a term singleton breech pregnancy has been debated for more than half a century and has been examined in both randomized and observational studies.[2] Prior to 2001 recommendations by the American College of Obstetrician and Gynaecologist (ACOG), approximately 50% of breech presentation were considered candidates for vaginal delivery. Of these candidates, 60-82% was successfully delivered vaginally. Between 28-32 weeks pregnancies, retrospective studies suggest an improved outcome with cesarean delivery, the results may be affected by selection bias. However for gestational age between 34-36 weeks, vaginal breech may be considered after discussion of risks and benefits with the couple. After 37 weeks gestation, studies are in favor of cesarean section as increased perinatal mortality and short term neonatal morbidity associated with vaginal breech delivery. Results of Term Breech Trial (TBT) in 2000 was in favor of elective cesarean section for breech presentations, as there was significant reduction in perinatal morbidity and mortality.[3] But before taking this as a final decision, there was need to evaluate this decision especially in limited resource countries. If this

becomes the final decision and mode of delivery for breech presentation, then with passage of time, obstetrician will not able to conduct vaginal breech delivery in any patient if she comes with in established labor. In 2006, both ACOG and RCOG recommended a trial of labor in certain circumstances.[4]

METHODOLOGY

Retrospective cohort study was conducted in Sheikh Zayed Medical hospital, Rahim Yar Khan from period of January 2013 to 2015. Total no of mother delivered in this duration of three years were 16904. Among them 685 patients with breech presentation were included in our study. Demographic data like age, parity, gestational age and previous mode of delivery was collected. Gestational age was calculated by last menstrual date and by first trimester ultrasound scan in those who were unable to recall their menstrual date. Type of breech presentation was confirmed by ultrasonography. Vaginal delivery was selected for those who presented with established labor with reactive CTG, with adequate maternal pelvis, fetal weight less than 3.5kg. Breech extraction was done for second twin. Labor was monitored and assisted breech delivery was performed by skilled personal in operation theatre. Cesarean section either emergency or elective was performed for placenta previa, fetopelvic disproportion, fetal distress, previous cesarean section, footling breech, cord presentation, failure to progress, oligo/polyhydramnios.

RESULTS

Incidence of breech presentation in our study is 4%. Total 685 women with breech presentation were included in this study. Most of cases 616 (89.9%) were with extended breech. Remaining 69 (10%) were with footling and flexed breech as shown in table 1. 303 (44.2%) women with breech presentation were primigravida, 277 (40.3%) breech presentation was in multi and grand multiparous women.59 cases were in preterm breech, 28 (4.08%) were in twin pregnancies(first twin with breech presentation), 15 cases with uterine and fetal anomalies and 3 cases were with placenta previa. table 2 Mode of delivery shown in table 3, 512(74.4%) delivered by lower segment cesarean section either in the form of elective or emergency and 173(25.2%) were delivered vaginally.

Among 685 women, 614(89.6%) delivered alive newborns. The fetuses with Apgar score less than 7 were more with vaginal delivery group 64(9.3%) as compared to LSCS group30(4.3%). Received IUD were 24 (3.5%), causes of IUD were congenital anomalies, cord around neck, meconium stained liquor, cord prolapse,prematurity and placental abruption. Among 47 stillbirths all were in vaginal delivery group. Almost all patients presented in established labor, were unbooked having some intervention from untrained health care providers (dai).there was no difference of maternal morbidity between two groups.

Table 1: Types of breech (total cases: 685)

Types of breech	No of cases	Percentage
Footling breech	24	3.5%
Complete breech	45	6.5%
Frank breech	616	89.9%

Table 2: Etiology of breech presentation

Causes	No of cases	Percentage
Primibreech	303	44.2%
Multiparity	176	25.6%
Grandmultiparity	87	12.7%
Preterm breech	59	8.6%
Twin pregnancy	28	4.08%
Anencephalic	06	0.87%
Uterine anomalies	05	0.72%
Hydrocephalous	04	0.58%
Talipus equinovarous	14	2.04%
Placenta previa	03	0.43%

Table 3: Mode of delivery

Mode of delivery	No of cases	Percentage
Em-LSCS	470	68.6%
El-LSCS	42	6.13%
Vaginal breech delivery	173	25.2%

Table 4: Type of vaginal delivery

Spontaneous breech delivery	100	14.5%
Assisted breech delivery	63	9.1%
Breech extraction of second twin	10	1.45%

Table 4: Fetal outcome

Fetal outcome	No of fetuses	Percentage
Alive	614	89.6%
Stillbirths	47	6.86%
Iutra uterine death	24	3.50%

DISCUSSION

Incidence of breech presentation in our study is 4% which is comparable with the study of Gilbert et al in which incidence is 3 %.[4] Maternal complications, fetal morbidity and mortality are much higher in breech presentation as compared to vertex presentation. Majority of females in our study were unbooked (78%).

Most of cases with breech presentation were in primiparous females (44.2%), these results are comparable with study of Abha Singh conducted in 2012.[6] Majority of presentation was frank breech 616(89.9%) and remaining 69 (10%) were complete and footling breech. These results are comparable with majority of studies as incidence of frank breech is higher in all.[3,4,7] Majority of patients with breech presentation were at term 626(91.3%) and rest of 58 (8.4%) were preterm breech. These results are not comparable with study of Abha Singh in which 77.3% women were at term.[6] Breech presentation at the time of delivery is associated with congenital anomaly. In our study anomalies associated with breech were hydrocephalous, anencephaly and talipus equinovarous (3.49%) these results are not comparable with the study of Mostello et in 2014 all who concluded that at leasy one congenital anomaly was associated among term breech infants (11.7%) as compared to cephalic presentation.[8] In our study 25.3% patients with breech presentation were delivered vaginally while in study of Brown et al vaginal delivery was in 44% while rest of 56% women were delivered by cesarean section in our study 74.7% mothers were delivered by cesarean section.[9] Our results are not comparable with study of Rashmi Kumar in 2017, in which breech delivery was conducted in 38% women and LSCS was performed in 62%.[10] Reason might be most of patients presents to them were in advanced labor. While in study of Alarab et al, results of which are closed to our study with vaginal delivery rate of 15.5% and LSCS rate of 84.5%.[11]

In our study, fetuses with Apgar score less than 7 were more with vaginal delivery group 64(9.3%) as compared to LSCS group 30 (4.3%). While in study of Rashmi Kumar results were much higher (21.4%), the reason for this, there was much higher vaginal delivery (38%).[10]

CONCLUSION

Our study concluded that no difference in maternal morbidity. Fetal morbidity was less and Apgar scores was better in cesarean section group. Perinatal mortality was higher in vaginal delivery group, other factors was also responsible for this, not only mode of delivery. Proper selection of patient for mode of delivery will be helpful in improving fetomaternal outcome. Regular drills in maternity units will enhance expertise and in the presence of skilled personals vaginal breech delivery will be safe mode of delivery.

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