

Analysis of 1049 Breech Deliveries In A University Hospital

BİR ÜNİVERSİTE HASTAHANESİNDE 1049 MAKAT DOĞUMUN ANALİZİ

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SUMMARY

Dafa of 1049 singleton breech deliveries are presented. 3.05% (32) of the patients were 18 years old or under and 16.69% (175) were 35 or over; 523 women were primipara and 526 were multipara. The incidence of prematurity was 23.54%. Cesarean section rate was 38.98%. The incidence of fetal mortality was 2.55% and congenital anomalies were seen in 5.53% of the infants. 601 infants were seen in frank breech presentation, 251 in complete, 45 in incomplete and 152 in foot presentation. Pregnancy complications of different magnitude were encountered in 11.53% of the cases. The vaginal delivery methods were Bracht maneuver in 191 cases, Muller+Weit-Smelli maneuver in 393 cases, Classical maneuver in 45 cases and external version was used in 11 cases. No maternal death was seen In this series.

Key Words: Breech delivery

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Developments in modern obstetrics have enablel us to control the outcome of delivery for the mother and fetus. These improvements also minimize the maternal and fetal mortality rates so that high-risk pregnant women bear healthy babies.

One of the most controversial topics in obstetrics remains the delivery of breech presented fetuses. Earlier studies advocated cesarean section routinely to minimize the perinatal morbidity and mortality (5,13). There is a tendency to reduce the cesarean section rate and to find an optimal protocol for the conduct of breech delivery (3,4,11,12).

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ÖZET

Bu çalışmada; 1049 makat doğum olgusu değerlendirilmiştir. Hastaların %3.05'ü (32) 18 yaşında ya da daha gençti ve %16.69'u (175) 35 yaşında ya da daha yaşlıydı. Olguların 523'i primipar, 526'sı multipardı. Prematüre insidansı %23.54 olarak bulundu. Sezeryan oranı %38.98 idi. Fötal mortalite insidansı %2.55 ve konjenital anomalii nsidansı ise %5.53 olarak saptandı. 601 bebek, frank 251 tam, 45 tam olmayan makat pozisyonlarında ve 152 bebek ayak gelişi pozisyonunda tespit edildiler. Olguların %11.53'ünde değişik derecelerde gebelik komplikasyonları görüldü. 191 olguda Bracht manevrası, 393 olguda Müller+VVert+Smelli manevrası, 45 olguda klasik manevra, 11 olguda eksternal versiyon kullanıldı. Anne ölümü görülmedi.

Anahtar Kelimeler: Makat doğum

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MATERIALS AND METHODS

In a 5-year retrospective study (1986-1990) singleton breech deliveries with complete data were reviewed. The study was undertaken in the University of Istanbul, Faculty of Medicine, Department of Obstetrics and Gynecology, Turkey. The delivery records and patient charts were reviewed in regard to age, parity, gestational age, duration of labor, method of delivery, Apgar scores, infant weight, complications of pregnancy and labor, indications for cesarean section and fetal maternal mortality rates.

Mean patient's age was 27.2 years (range: 16-44) shown in Table 1 and gestational age ranged between 26 and 44 weeks Table 2. There were 523 (49.85%) primiparous and 526(50.15%) muciparous parturients in our study group.

In this series, there were 13 infants weighting 1000 g or less, 234 infants 1000-2500 g, 763 infants

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Table 1. Age distribution of the patients

Age Group	No.of patients	%
18 or less	32	3.05
18-35	842	80.26
35 and over	175	16.69
Total	1049	100

Table 2. Gestational age distribution of the patients

Gestational age group (in weeks)	No.of patients	%
28 or less	33	3.14
28-34	111	10.58
34-38	159	15.15
38-42	704	67.11
42 and over	42	14.02
Total	1049	100

2500-4000 g and 39 infants with birthweight more than 4000 g.

Frank breech presentation, 601 infants (57.29%), was the prevalent type in our department. We selected primigravidae for vaginal delivery after careful examination by an obstetrician and radiological and ultrasonographical assessment of both maternal pelvis and fetal head attitude (6). In multigravidae a trial of labor was permitted after a clinical evaluation of fetal size and maternal pelvis. Radiological pelvimetry was performed whenever abnormal progress of labor was noted. Vaginal delivery was assisted by a resident physician under the supervision of a senior resident. A neonatologist was present at the delivery. Caserean sections were performed by a resident with the assist of an obstetrician.

RESULTS

One thousand forty-nine singleton breech deliveries with fetuses weighing more than 800 g were reviewed in our obstetric department. Caserean sections were performed in 409 (38.98%) patients. Out of 409, 192 infants were 1500 g or less. The mode of breech delivery vaginally is presented in Table 3. Abdominal x-ray was performed 24% of the cases. Beginning from 1988 ultrasonographic evaluation became a routine method for diagnosis. Beginning from 1986 up to 1990, the 26 weeks fetus was not accepted as a viable fetus. Now the borderline of viability of the fetus is accepted as 28 weeks but in some extraordinary conditions such as long period of infertility, no chance for other pregnancies, we can terminate 26 weeks pregnancies as well. There were 4 macrozomic infants out of 42 pregnancies which were over 42 weeks. The diagnosis of macrozomy was made in prenatal period

by ultrasonography and by genetical evaluations. The prediction of birthweight of 25 infants out of 39 infants whom birthweights were more than 4000 g, was made by ultrasonography with calculating a significant fault deviation. The others were accepted as large baby by clinical examination. The prediction of birthweights were right in all cases. In this group, 28 babies were delivered by cesarean section and 11 babies were delivered vaginally. The fetal mortality rate was 0%.

One and five minute Apgar scores in vaginal and abdominal breech deliveries is presented in Table 4. Association analysis revealed a positive correlation between Apgar scores and birthweight ($p < 0.0001$). There is no significant difference between vaginal and abdominal delivery in the affection of Apgar scores. Fetal morbidity in the different birthweight in vaginal and abdominal deliveries was not different ($p < 0.1$).

Pregnancy complications such as placenta previa, ablatio placenta, premature rupture of membranes, fetal distress and pregnancy induced hypertension were encountered in 11.53% of the cases. Major malformations such as hydrocephalus, anencephalus spina bifida, multiple genital anomalies were found in 58 (5.53%) newborns. The main reason of neonatal deaths was cerebral hemorrhage and the second reason was major malformations and prematurity. The incidence of fetal mortality was 2.65% (17 infants) in vaginally delivered infants and 2.45% (10 infants) in abdominally delivered infants. The reasons of neonatal

Table 3. Mode of breech deliveries

Mode	No.of patients
Muller+Weit-Smelli Maneuver	393
Bracht maneuver	191
Classical maneuver	45
Ext. version	11

Table 4. Apgar scores in vaginal and abdominal breech deliveries

Apgar scores in the first minute	Vaginal delivery no.of infants	Abdominal delivery no.of infants
1-4	26	10
5-7	122	70
8-10	492	329
Total	640	409

Apgar scores in the fifth minute	Vaginal delivery no.of infants	Abdominal delivery no.of infants
1-4	6	7
5-7	58	22
8-10	576	380

deaths in these 17 infants delivered vaginally were cerebral bleeding in 6 infants, meningomyelocele in 4 infants, anencephalus in 2 infants, multiple anomalies in 2 infants and prematurity in 3 infants. We thought that only two infants out of these 17 infants had traumatic deliveries (1450 g and 1500 g) and were lost because of cerebral bleeding. Out of 10 infants whom were delivered by sectio, the cerebral bleeding was the reason of the death in 5 infants, prematurity was the reason in 4 infants and spina bifida+infection was the reason in one infant. It is easily seen that, the effect of sectio and vaginal delivery to the fetal mortality rate is similar in habies over 1500 g of birthweight.

The reason of neonatal mortality in 17 infants out of 27 was found by autopsy, and in 10 infants the reason was found clinically as autopsy was rejected.

Maternal morbidity in vaginal and abdominal deliveries was not different ($p < 0.1$). Postpartum febrile morbidity was similar in both groups.

DISCUSSION

Two different approaches in management of breech delivery were evaluated in this study. Early monitoring of fetal heart rate and ultrasonographic evaluation was frequently practiced by our department. In this study, neither neonatal mortality nor total mortality in infants who survived to labor was different between breech infants delivered vaginally and those delivered by cesarean section. Recent reports have concluded that the currently high cesarean rate has lowered mortality for breech infants, particularly for the premature breech infant (1,2,9). A major cause of fetal mortality and morbidity in the delivery breech infants is intracranial injury (2), which may be due to bony distocia or to trauma to the head. Although pelvimetry or measurement of biparietal diameter by ultrasonography may help select infants who are not candidates for vaginal delivery, clinical signs of cephalopelvic disproportion during breech labor may not appear until late in the second stage labor. The occurrence during labor of unpredictable events such as incomplete cervical dilation, partial deflection of the vertex may make it impossible to eliminate entirely the hazard to the breech fetus in a vaginal delivery, even with the most careful selection of cases. On the other hand, delivery through a narrow, long transverse uterine incision during cesarean delivery may also damage the head.

In our series as reflected 38.98% cesarean delivery rate, there was selection for cesarean section if, for example, there was clinical evidence of pelvic contraction, if the breech was of the double footing type, or if the infant was very large or if there was an evidence which showed pelvic distocia. There was selection for vaginal delivery if, for example, the mother was admitted in labor with the breech infant on the

perineum or multiparous women with a suitable bony pelvis for breech delivery or multiparous or primiparous women with frank breech presentation in suitable pelvis.

The literature is inconclusive on the best approach to the delivery of the low birthweight breech infant (7). In this study, there appeared to be statistical correlation between fetal outcome and birthweight. Cesarean section produced better results, especially in the low birthweight group, are based on a relatively small number of cases, these conclusions are consistent with recent publications (4,10). The fact that the fetal outcome in infants weighting more than 1500 g was similar abdominally and vaginally, emphasizes that cesarean section is not the best way to deliver these infants. These conclusions are supported by others (9,10).

In conclusion, active vaginally-minded conduct of breech labor, results in similar fetal and maternal outcome, compared with a higher cesarean section rate.

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