

COMPARATIVE STUDY OF PERINATAL OUTCOME IN DIFFERENT MALPRESENTATIONS

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SUMMARY

During a period of 2 years' study 737 cases of different malpresentations, delivered in a teaching hospital, were studied and their perinatal outcomes were compared. The PNMR of overall malpresentations was 4½ times greater (275.4/1000 births) than that of vertex presentation (61.71/1000 births) during this period. Analysis of the result showed that prematurity followed by asphyxia neonatorum were mostly responsible for such deaths. Abdominal delivery was safer compared to vaginal one in all malpresentations.

Malpresentations are usually associated with higher perinatal mortality than vertex. Depending on certain factors, vaginal deliveries may not be always safe as in cases of breech, transverse lie, face, compound presentations and/or possible as in cases of brow and persistent mento-posterior position.

To evaluate the perinatal outcome in different malpresentations in present day obstetric practice, this current study was undertaken.

MATERIAL AND METHOD

A 2 years' study of all cases of malpresentations at Chittaranjan Seva Sadan Hospital, Calcutta from 1.1.93 to 31.12.94 was carried out where the babies weighed 1 Kg. or more.

RESULT AND ANALYSIS

During this period under study a total of 737 cases of different malpresentations were delivered compared to 17379 cases of vertex presentation as shown in the Table - I.

Bhide et al (1990) reported a higher incidence of 4.56% breech presentation. Khandeparkar and Seth (1990) also reported

a higher incidence of 1 in 162 transverse lie.

It was also evident from Table-I that PNMR was lowest in vertex presentation if that of brow presentation of the present study is not considered due to very small numbers. The overall PNMR was 275.4/1000 births in malpresentations. A lower PNMR of 202.7/1000 births and 16.61% in breech deliveries were reported by Daftary and Mehta (1994) and Bhide et al (1990) respectively.

Age of Mother :

The highest number of different malpresentations occurred in the age group of 21-25 years. (Table II) Khandeparkar and Seth (1990) found that 70% of the cases of transverse lie belonged to 20-30 yrs. of age.

Parity of Mother :

Highest number of different malpresentations in our series occurred in primipara with downward trend as

Table-I
Shows the incidence, PNMR etc. of different presentations.

Type of presentation	No.	Incidence	Still birth Number and Rate/1000 Total Birth	Neonatal death number & Rate/1000 (Live)	Perinatal death Number & PNMR/1000 Births. (Total)
Vertex	17379	1 in 1.04 (96.25%)	635 36.53/1000	483 28.84/1000	1118 61.71/1000
Breech	609	1 in 29.7 (3.36%)	89 146.14/1000	68 130.76/1000	157 257.79/1000
Transverse	72	1 in 251	21 291.66/1000	12 235.29/1000	33 458.33/1000
Face	36	1 in 503	1 271.71/1000	6 171.42/1000	7 194.44/1000
Compound	11	1 in 1616	5 454.54/1000	1 166.66/1000	6 545.45/1000
Brow	9	1 in 2012	-	-	NIL

Table II
Shows age pattern of Mothers :

Age	Breech	Tr.Lie	Face	Compound	Brow
Upto 20 yrs.	162	16	15	4	4
21-25 yrs.	254	35	10	6	3
26-30 yrs.	113	13	9	0	2
31-35 yrs.	19	8	2	1	-
36-40 yrs.	12	-	-	-	-

Table III
Shows the parity in different malpresentations.

Parity	Breech	Tr.lie	Face	Compound	Brow
P0	268	27	20	6	6
P1	197	21	9	2	1
P2	95	14	5	2	2
P3	32	6	2	1	-
P4 +	17	4	-	-	-

parity increased (Table III). Patwardhan et al (1990) reported 48.9% of breech presentation in primipara. Khandeparkar and Seth (1990) found that 79% cases of transverse lie belonged to primipara.

Primipara constituted 44% of breech presentation and 37.4% of transverse lie

in our series.

Booking :

65-70% of the cases of different malpresentations were either unbooked or had irregular antenatal attendance. Perinatal loss amongst unbooked cases was 19%.

Table IV
Showing duration of pregnancy in different malpresentations.

	28-32 wks	33-36 wks	37-40 wks	>40 wks.
Breech	202	195	174	38
Transverse lie	8	41	23	-
Face	-	6	29	1
Compound	-	5	6	-
Brow	-	2	7	-

Table-V
Shows method of delivery in different malpresentations.

	Breech	Tr. Lie	Face	Compound	Brow
1. Spontaneous vaginal delivery.	24	4	17	6	-
2. Assisted breech delivery	469	-	-	-	-
i) with forceps in	10	-	-	-	-
after coming head.					
ii) with craniotomy for	2	-	-	-	-
hydrocephalus.					
3. Forceps	-	-	7	1	-
4. Internal podalic version + breech extraction.	-	8	-	-	-
5. Evisceration	-	2	-	-	-
6. Caesarean section	104	56	12	4	9
7. Sub-total hysterectomy for ruptured uterus.	-	2	-	-	-

Duration of Pregnancy :

Preterm deliveries were common in breech and transverse lie (Table IV).

Factors favouring malpresentations :

Besides prematurity (41%) twins were associated with 9.9%, contracted pelvis in 3.3%, congenital malformations of foetus in 2.57%, placenta praevia in 1.3%, hydramnios in 1.08% and uterine abnormality in 0.05% of the cases.

The Method of Delivery :

(Table V)

In breech presentation a low perinatal loss of 11.9% following caesarean sections was observed compared to higher perinatal loss of 28.7%, after vaginal deliveries. Bhide et al (1990) reported a lower PNMR of 5.26% and 18.64% in abdominal and vaginal deliveries respectively in breech presentations.

In transverse lie we observed a high PNMR of 33.9% and 87.5% following abdominal and vaginal deliveries

respectively.

In both breech and transverse lie higher PNMR following vaginal deliveries was mainly due to still births from cord complications with prolonged labour amongst referred cases.

In face presentation 23.5%, 28.5% and 8.3% PNMR were observed following spontaneous vaginal delivery, forceps delivery and caesarean section respectively. In compound presentation 83.3% and 25% PNMR were found following vaginal and abdominal delivery respectively. Cord complication was also responsible for few cases where vaginal delivery took place.

Weight of the Babies :

About 80-85% of deaths occurred in babies weighing between 1-1.5 Kg. in different malpresentations. The number diminished with increase in weight of the babies (Table VI).

Delivery - death intervals of Neonates:

In all malpresentations prematurity and

Table - VI
Showing weight of the babies in different malpresentations.

Weight of the babies	Breech	Tr.Lie	Face	Compound	Brow
1. - 1.5 Kg.	108	5	4	-	-
1.6 - 2 Kg.	147	15	-	3	-
2.1 - 2.5 Kg.	230	29	13	6	5
2.6 - 3 Kg.	103	20	16	2	4
3.1 - 3.5 Kg.	21	3	3	-	-

asphyxia neonatorum counted for 34.4% and 40.2% of deaths respectively, whereas 16% and 9.1% of deaths were due to infections and congenital malformations of foetus respectively.

Congenital malformations :

There were 19 congenital malformations amongst 737 cases of malpresentations, an incidence of 2.57%. Sixteen cases of major malformations like hydrocephalus and anencephalus with or without spina bifida were mostly associated with breech and face presentations.

CONCLUSIONS

In the present study malpresentation led to a very high PNMR compared to that of vertex presentation mostly due to large number of unbooked and complicated referred cases. Although commonest malpresentation was breech the highest PNMR was observed in compound presentation. Higher PNMR was observed in different types of malpresentations following vaginal delivery compared to caesarean section (excluding Brow presentation).

Prematurity was responsible for highest PNMR in all malpresentations except brow followed by asphyxia neonatorum, in the present series.

Hence to minimise such high PNMR in malpresentations energetic efforts should be made (1) to encourage regular and frequent antenatal check up as and when necessary for getting opportunity for early detection of malpresentations and their management when possible, (2) to take necessary steps to prevent preterm labour after hospitalisation when necessary, (3) to instruct and arrange for delivery in a well equipped hospital with facilities for neonatal intensive care unit and (4) to consider judiciously for safe abdominal/vaginal delivery by skilled personnel.

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