

STUDY OF FOETAL MALPRESENTATIONSK. V. S. M. Sandhya Devi¹, P. Vijaya Sheela², G. Anitha³**HOW TO CITE THIS ARTICLE:**

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ABSTRACT: Malpresentation of fetus influences the fetal and maternal outcome. **AIM:** To study the incidence, etiological factors and fetomaternal outcome. An observational study was conducted at King George hospital during a period of one year (Jan – Dec 2014.) **RESULT:** There were 5704 deliveries conducted during the period with 278 malpresentations, incidence being 4.87%. Breech is the most common presentation followed by transverse lie. **CONCLUSION:** Malpresentation requires high vigilance and prompt management to reduce perinatal mortality and maternal morbidity.

KEYWORDS: Malpresentations, Breech, Transverse lie.

INTRODUCTION: Malpresentation is defined as, when the presenting part of fetus is other than normal vertex of fetal head. It includes breech, face, brow, shoulder, compound and cord presentations.⁽¹⁾ In modern obstetrics the incidence of malpresentations has fallen due to reducing parity. Among malpresentations breech presentation is the most common followed by transverse lie with shoulder presentation and face presentation, others like brow, compound and cord presentations are less common. Congenital anomalies and perinatal mortality are increased with malpresentations.

AIM: To study the incidence of malpresentations, etiological factors and fetomaternal outcome associated with malpresentations.

METHODOLOGY: A retrospective observational study was conducted for a period of one year [January 1st – December 31st, 2014] in King George Hospital, a tertiary care hospital in Visakhapatnam, Andhra Pradesh.

OBSERVATIONS AND RESULTS: There were 5704 deliveries conducted with 278 malpresentations with an incidence of 4.87%. Out of 278 malpresentations, breech presentation is the commonest 236[84.89%], transverse lie with shoulder presentation are 14[5.04%], face presentation are 12[4.36%], brow presentation are 4[1.44%], compound and cord presentations are each of 6[2.16%] cases. Most of these are unbooked cases 170[61.15%]. Perinatal mortality is high 48[17.2%]. Commonest cause of still birth is prematurity, transeverse lie with hand prolapse

Presentation	No. of cases	Percentage
Vertex	5426	95.13%
Non vertex	278	4.87%
Total	5704	100%

Table 1: Incidence of malpresentations

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The incidence of total malpresentations is 4.87 % among 5704 deliveries conducted.

Type	No: of cases	Percentage
Breech	236	84.89%
Face	12	4.36%
Brow	04	1.44%
Transverse lie	14	5.04%
Compound presentation	06	2.16%
Cord presentation	06	2.16%
Total	278	100%

Table 2: Distribution of malpresentations

Of the total malpresentations, breech accounts for 84.89%. Transverse lie accounts for 5.04%, face presentation for 4.36%. The least common malpresentation is brow which forms 1.44% of the total malpresentations.

Maternal Age Group	No. of cases	Percentage
<20 years	54	19.42%
21- 25 years	170	61.15%
26- 30 years	36	12.94%
>30 years	18	6.47%
Total	278	100%

Table 3: Malpresentations in relation to age

Most of the fetal malpresentations occur in the maternal age group of 21–25 years [61.15%], as the total number of pregnancies is also more in this age group.

CASES	No. of cases	percentage
Booked	108	38.85%
Unbooked	170	61.15%
Total	278	100%

Table 4: Booked – Unbooked cases

Majority of the cases (61.15%) in our study were not booked in the hospital for antenatal care.

Parity	No. of cases	Percentage
1	152	54.67%
2	96	34.53%
3	20	7.19%
4	08	3.00%
5	02	0.82%
Total	278	100%

Table 5: Distribution of cases in relation to parity

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Most of the fetal malpresentations 54.67% occurred in primi para followed by 34.53% in para 2.

Gestational age	No: of cases	Percentage
28-32wks	24	8.6%
33-37wks	32	11.5%
>37wks	222	79.9%
Total	278	100%

Table 6: Distribution of cases in relation to gestational age

Most of the fetal malpresentations, 79.9% were at term gestation >37 weeks. The incidence is only 8.6% at 28-32 weeks and 11.5% at 33-37 weeks of gestation.

Mode Of Delivery	No. of cases	Percentage
Spontaneous Breech delivery	24	10.5%
Assisted breech delivery	34	14.5%
Caesarean section	178	75.0%
Total	236	100%

Table 6: Mode of delivery in breech presentation

Majority of breech presentations were delivered by caesarean section and 25% were delivered by vaginal route.

Mode Of Delivery	No. of cases	Percentage
Vaginal delivery	04	33.3%
Caesarean section	08	66.7%
Total	12	100%

Table 7: Mode of delivery in face presentation

In face presentation, about 66.7% cases are delivered through caesarean section, whereas 33.3% had vaginal delivery.

Foetal anomaly	No. of cases
Hydrocephalus	05
Anencephaly	03
Gastroschisis	02
Ambiguous genitalia	02
CTEV(congenital talipesquinovarus)	06
No anomaly	260

Table 8: Fetal anomalies associated with malpresentation

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Majority of about 260 cases had no anomalies associated with malpresentation. Of the anomalous babies born out of breech presentation, 6 had Congenital TalipesEquinoVarus, 5 had hydrocephalous, 3 had anencephaly. Gastroschisis and ambiguous genitalia were seen in 2 each.

Risk Factors	No. of Cases	Percentage
Polyhydramnios	06	2.1%
Oligohydramnios	30	10.4%
Placenta previa	04	1.4%
Uterine malformaions	08	2.8%
Fetal anomalies	18	6.5%
Multiparity	30	10.5%
Contracted pelvis	08	2.8%
Premturity<37 wks	56	20.0%
Unknown cause	118	42.4%
Total	278	100%

Table 9: Maternal risk factors

Prematurity is the most common known cause of abnormal presentation, accounting for 20% of the cases. Of the remaining risk factors, 10.5% of cases are due to multiparity, 10.4% of cases are due to oligohydramnios, 6.5% of cases are due to fetal anomalies, 2.8% of cases are due to uterine malformations, 2.8% of cases due to contracted pelvis, 2.1% cases due to polyhydramnios, 1.4% of cases due to placenta previa. In majority of cases, 42.4%, the cause remains unknown.

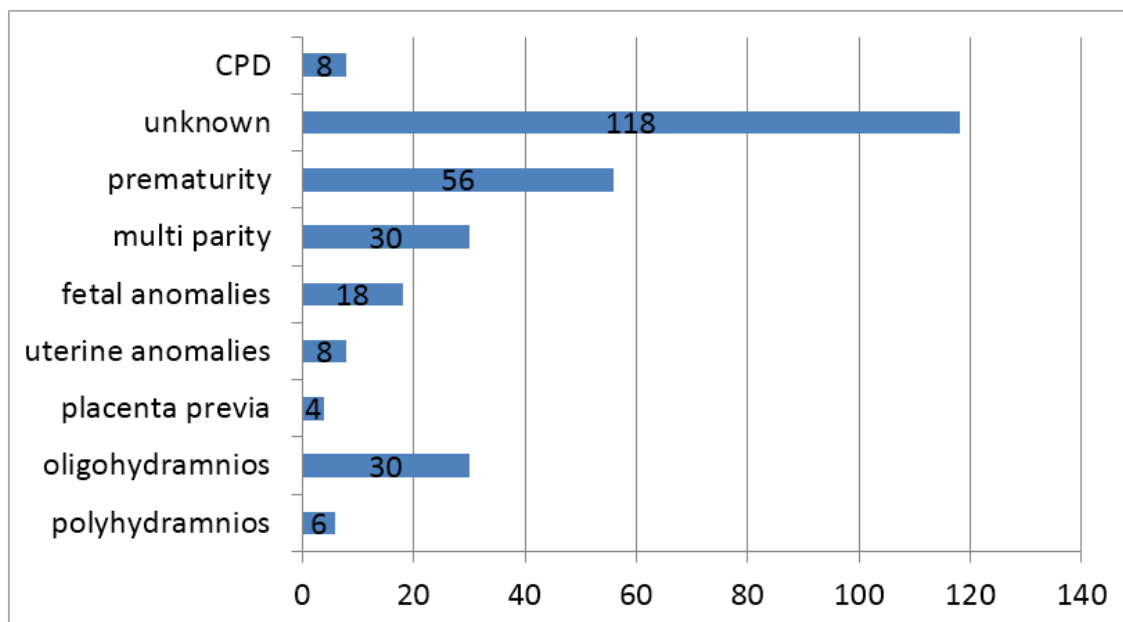


Table 10: RISK FACTORS

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Sl. No.	Etiology	Dr. Das 1964	Dr. Subhadevi 1983	Dr. Madhavikalyani 2013	Present study
1	Unknown	-	80%	85%	42.4%
2	Uterine anomalies	7%	7.9%	12%	2.8%
3	Contracted pelvis	-	3.6%	2%	2.8%
4	Hydramnios	2.7%	3.1%	1%	2.1%

Table 11: Comparative study for the causes for breech presentation

Sl. No.	APGAR Score	No: of cases	Percentage
1	0-2	24	8.6%
2	2-4	8	2.9%
3	4-6	2	0.8%
4	6-8	40	14.4%
5	8-10	204	73.3%

Table 12: APGAR scoring of the newborn

About 8.6% of babies had APGAR 0-2 and 2.9% babies had APGAR 2-4. APGAR score was 6-8 in 14.4%, and 8-10 in 73.3% of babies. With APGAR scores above 6(87.7%) all babies survived.

Intra uterine death	20	7.2%
Still birth	04	1.4%
Early neonatal death	10	3.6%
Total	34	12.2%

Table 13: Fetal Mortality

Of the 278 malpresentations, 12.2% cases accounted to perinatal mortality. Among them 7.2% were intra uterine deaths, 1.4% were still births and early neonatal deaths were 3.6%.

DISCUSSION: Identification of malpresentations and their etiological factors, is of vital importance to reduce perinatal morbidity and mortality.

In the present study, 278 cases of malpresentations were identified among 5704 deliveries in King George hospital, Visakhapatnam.

According to 11th edition of MUNRO KERR'S operative obstetrics, incidence of breech at term is 3-4%, face presentation is 1 in 500 i.e., 0.2%, brow is 1 in 1000 i.e., 0.1%, transverse lie is 1 in 500 births i.e., 0.2%.⁽¹⁾

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In the present study, 84.89% accounted to breech presentation, 5.04% of cases were transverse lie, 4.36% were face presentation, brow accounted to 1.44% of the cases, 2.16% each were contributed by compound and cord presentation. This was similar to study conducted by Noor et.al.⁽²⁾

In the present study, malpresentations were most common 61.15% in the age group of 21- 25 years, 19.42% were in the age group below 20 years, 12.94% in 26-30 years and 6.47% were in the age group above 30 years. These findings correlate with that reported by other studies Vijayalakshmi et.al, reported 47% were in the age group of 21-25 years, 17% were in the age group of 15-20 years, 27% of the cases in the age group of 26-30 years and 9% in the age group of 31-35 years.⁽³⁾

In this study 61.15% were unbooked cases which was similar to other studies, Vijayalakshmi et.al reported 65 were unbooked cases,⁽³⁾ Noor et.al reported 276 unbooked cases.⁽²⁾

In the present study 54.67% occurred in primigravidae. Noor et.al showed 25.17% of the cases were in primigravidae, Vijayalakshmi et.al reported 75% of the cases are in multipara.

In the present study breech was the most common malpresentation, 58 cases were delivered by vaginal route. Among them 58.62% had assisted breech delivery, 41.38% had spontaneous breech delivery. This report was similar to Noor et.al who reported assisted breech delivery in 65.4%, Spontaneous breech delivery in 20.9% and breech extraction in 5.9%.⁽²⁾

In the present study face presentation accounted to 4.36% of the cases, of which 66.7% were delivered by caesarean section. Benedetti TJ et.al reported caesarean section in 50% of the cases. Noor et.al reported 33.3% underwent caesarean section.⁽⁴⁾

In the present study 18 cases with malpresentations delivered anomalous babies. Among them 5 babies had hydrocephalus, 6 were born with congenital talipes equinovarus, 3 were anencephaly babies, gastroschisis and ambiguous genitalia were seen in 2 each. Similar observations were made in other studies. Noor et.al reported 8 cases with malpresentations, among them 5 had hydrocephalus, 3 presented with clubfoot, anencephaly and sacrococcygeal teratoma.⁽²⁾

In the present study prematurity was the most common etiological factor, accounting to 20% of the cases, 10.5% accounted to multiparity, 2.8% each presented with uterine anomalies and contracted pelvis, 12.5% presented with disorders of amniotic fluid volume and 1.4% cases had placenta previa. Similar observations were made in other studies; Vijaya Lakshmi et.al reported multiparity as most common etiological factor (75 cases), 10 cases had uterine anomalies, 7 presented with placenta previa, 3 cases had contracted pelvis and 3 had twin gestation and in 2 cases was not known.⁽³⁾

In the present study perinatal mortality was seen in 34 cases, among them 20 were intra uterine deaths, 4 were still born and 10 had early neonatal deaths following low APGAR at delivery. Similar results were observed in other studies; Noor et.al reported perinatal mortality among 44 cases, among them 37 were still born and 7 had early neonatal deaths.⁽²⁾ Vijaya Lakshmi et.al reported 45 still births, 7 neonatal deaths among 100 cases.⁽³⁾

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CONCLUSION: Management of abnormal presentation is a continuing challenge to the obstetrician. Education about diagnosis of malpresentation and identification of etiological factors should be imparted to health care personnel, to enable early referral to higher centres for specialist services. Delivery in malpresentations should be planned at centres which have expertise in conducting vaginal delivery in malpresentations, with good intrapartum monitoring and with facilities for caesarean section, for better fetomaternal outcome.

REFERENCES:

1. Munro Kerr's operative obstetrics, 11th edition, Elsevier chapter 9, 14.
2. Shehla Noor, Nasreen Ruby Faiz, Shagufta Murad; Malpresentation incidence and causes. JPMI Vol. 15 (1). 33 – 38.
3. Vijayalakshmi B, PallaviPurra. A clinical study of outcome of labour in transverse lie. JEBMH 2015 Vol. 2, issue 34, 5232-5239.
4. Benedetti TJ, Lowensohn RI, Truscott AM. ObstetGynecol. 1980 Feb; 55 (2).

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