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Fetomaternal Outcome in Obstructed Labour

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Abstract

Background: Obstructed labour is still a major clinical problem of obstetrics seen in the developing countries which results from neglected watch on progress of labour, where vaginal delivery has not been possible[4]

Aims and Objectives

- To analyze the various factors leading to obstructed labour.
- To study the complications and the management carried out in these cases.
- To find out the incidence of maternal & perinatal mortality due to obstructed labour.
- To discuss the ways and means of reducing the incidence of cases of obstructed labour with available facilities and resource.

Materials & Methods

The study was a cross-sectional study conducted at J.L.N medical college and hospital Ajmer from October 2016-October 2017 on 50 patients admitted with h/o prolonged labour and maternal distress with signs and symptoms of maternal exhaustion, dehydration, keto-acidosis, Bandl's ring.

Results

Out of the 50 cases studied,obstructed labour was mostly seen in Primigravide(62%), Cephalopelvic disproportion (CPD) was the most common cause(65%), Abdominal delivery was carried out in 98% cases, most common maternal complication was Puerperal sepsis(40%). The still birth rate was 20% (10cases), NICU admission was 75%(30 cases). Most common fetal complication was birth asphyxia.

Conclusion

Regular antenatal checkups and improvement in maternal nutrition. Use of Partograph in labour, which is an inexpensive tool to monitor and prevent obstructed labour. Appointment of qualified personnel and well trained staff, who can recognize any deviation from normal labour and recognize malpresentation and malposition at the earliest and refer such cases to higher centers.

Keywords: Obstructed labour,Partograph,Still birth rate.

Introduction

Obstructed labour is one where inspite of good uterine contractions,the progressive descent of the presenting part is arrested due to mechanical obstruction[4].It is due to a mismatch between the fetal size and the maternal pelvis[2].It accounts for 8%of maternal mortality in developing countries.[9].

It is a condition where further progress of labor is not possible without assistance[1,7].It is a major cause of both maternal and new-born morbidity and mortality. It can

only be alleviated by means of an operative delivery, either caesarean section or other instrumental delivery[8].

Most deliveries are still conducted by untrained personnel..Ignorance, non-availability of transport and medical facilities are important causes. It can only be alleviated by means of an operative delivery, either caesarean section or other instrumental delivery. It is therefore an absolute but not a relative condition.

Materials & Methods

The study was a Cross-sectional study conducted at the Department of Obstetrics and Gynecology, J.L.N medical college and hospital Ajmer from October 2016-October 2017.

Inclusion criteria

- Prolonged second stage of labour.
- Those patients with prolonged labour and maternal distress with signs and symptoms of maternal exhaustion, dehydration, keto acidosis, Bandl's ring.

Exclusion criteria No signs and symptoms of obstructed labour.

Sample size: 50

Investigations

- CBC, Blood grouping and Rh typing
- Blood urea, serum creatinine
- Urine for protein, Sugar and ketone
- Urine culture.
- High vaginal swab for culture and sensitivity
- If sign and symptoms suggest of septicemia blood culture and sensitivity
- Planned urgent delivery either by caesarean or vaginal delivery and these cases were followed until discharge from the hospital.

Table 1: Distribution of Study Subjects Based On Booking Status.

Booking status	Frequenc	Percenta
Booked	05	10%
Unbooked	45	90%
Total	50	100%

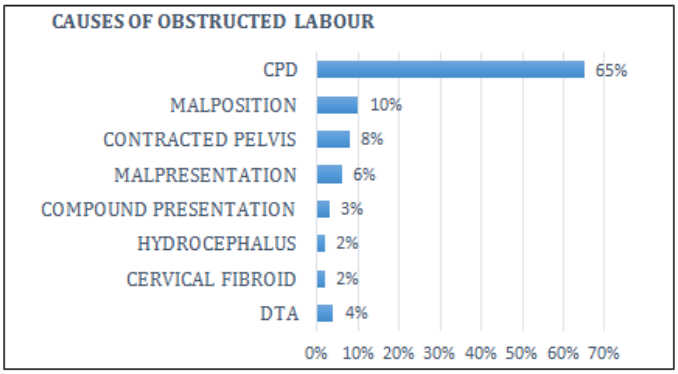
The above table shows that 10% of the cases were booked, while 90% of the cases were unbooked.

Table 2: distribution of study subjects based on gravida

Gravida	Frequency	Percent
1	31	62%
2	10	20%
3	05	10%
4	03	06%
5	01	2%
Total	50	100%

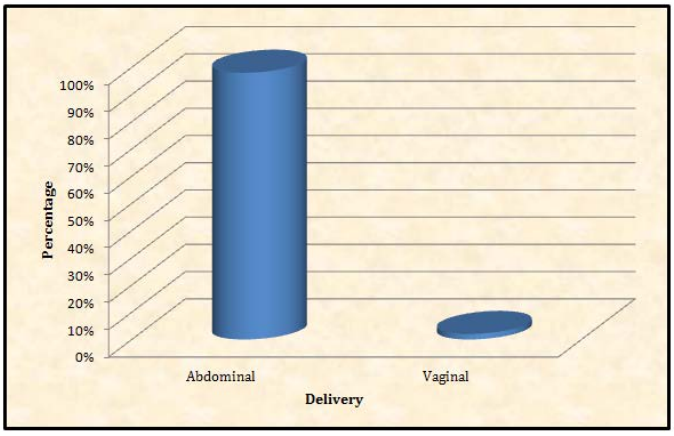
The above table shows that 62% (31cases) were Primigravida.

Graph – 1 :Causes Of Obstructed Labour



The above graph 3- shows that the most common cause of obstructed labour was due to Cephalopelvicdisproportion(CPD) 65%, followed by malposition (10%),contracted pelvis(8%).

Graph.No.2: Distribution Based On Mode of Delivery



Above graph shows that 98% of the cases(49) had abdominal delivery. 2%(1 case) had vaginal delivery by forceps.

Table No. 3: Distribution Based On Mode Of Extraction

Mode of extraction	Frequency	Percent
Vertex	33	66%
Patwardhan	8	16%
Breech	9	18%
Total	50	100%

The above table shows the mode of extraction during abdominal delivery. It was found that in 16% of cases(33) in deeply engaged head Patwardhan's method was adapted.18%(9 cases) breech extraction was adapted.In 66% (33 cases) mode of extraction was vertex.

Table No. 4 :Distribution Based On Maternal Morbidity

COMPLICATIONS	FREQUENCY	PERCENTAGE
Puerperal Sepsis	20	40%
Vaginal Lacerations	6	12%
Rupture Uterus	6	12%
Bladder injury	4	8%
Anemia	5	10%
Paralytic Ileus	5	10%
VVF	4	2%
SHOCK	1	2%
Peripartum hysterectomy	1	2%
Mortality	1	2

The above table shows that most common complication seen was Puerperal Sepsis in 40%subjects (20) followed by Vaginal Lacerations, Rupture uterus in 12 % subjects Each.

Incidence Of Maternal Mortality

The maternal mortality in this study was 2%(1 subject).The death was due to Septicemia.

Table. No. 5:Distribution Based On Perinatal Outcome

Perinatal outcome	Frequency	Percent
Live	41	82%
Still born	9	18%
Total	50	100%

Out of the 50 cases studied the still birth rate was 18% (9 cases). This was due to delay in referring the cases from peripheral centers.

Table 6: Distribution Based On Nicu Admission

NICU admission	Frequency	Percent
Yes	36	87%
No	05	13%
Total	41	100%

The above table shows that 87% had NICU admission, while 13% were mothershift.

Table 7: Distribution Based On Causes Of Neonatal Death.

Causes of neonatal death	Frequenc
Hypoxic is chaemic	1
Birth asphyxia	1
Meconium Aspiration	1
Total	3

The above table shows that neonatal death in 3 newborn was due to Hypoxic ischaemic encephalopathy (HIE) (1) Birthasphyxia(1) and Meconium aspiration syndrome(1).

Table 8: Comparing Our Study With The Perinatal Mortality Of The Other Studies.

Authors	Locality	Year	PNM rate
Bhattacharya et al	Indore	2007	23.21%
Sabyasachi et al	Kolkata	2013	23.6%
Robel et al	Ethiopia	2016	25.1%

Incidence of Perinatal mortality - 24%(12cases).

Results

In the study it is found that obstructed labour is mostly seen in Primigravidae (62%)cases major cause being CPD(Cephalo pelvic disproportion) comprising of 65% of cases.

The second common cause being malposition. In our study it is found that 30% of the cases had Bandl's ring at the time of admission.

98% of the cases underwent abdominal delivery, 2% had vaginal delivery.Treatment was aimed at relieving the obstruction without any delay in view of decreasing the morbidity. Most common complication was Puerperal sepsis(40%).

Out of 50 cases there were 6 cases of rupture uterus for which laparotomy with rent repair was performed.Peripartum hysterectomy was done in 1 case.

Maternal mortality was seen in 1case(2%) cases due to Septicemia.Perinatal mortality in our study was 24%

Discussion

In our study 80% of the cases were from rural areas and most of the patients - 96% belonged to low socioeconomic status.Comparing with the study conducted by S.Mondal (2013)[14] 88.82% were from rural areas and 87.86% belonged to low socioeconomic status.

In our study majority of the cases -31cases (62%) occurred in Primigravida.Comparing with the study by Dr. Sanjay Rai (2012)- 59% of the cases were seen in Primigravida.[13]

The most common cause of obstructed labour in our study was due to Cephalopelvic disproportion 65%(32 cases),Comparing with the study conducted by S.Mondal 2013(west Bengal)-commonest cause was CPD (55.59%).[14]

The most common mode of delivery was LSCS in 98%.Comparing with study by Dr.Sanjay Rai (2012).LSCS was done in 85%.[13]

Puerperal Sepsis was the most common complication which was seen in 20 cases(40%) followed by vaginal lacerations(12%),rupture uterus(12%),there was one maternal death due to Puerperal sepsis..Comparing with the study of S.Mondal – in which Pueperal sepsis was seen in 49 % cases, f/b PPHin 33.9% of the cases.There was also one maternal death due toAtoni PPH.[14]

Perinatal mortality in our study was 24%

Conclusion

Obstructed labour which is a preventable condition still prevails as an important obstetric problem in our country. This condition results in high maternal and perinatal morbidity. Hence it is a condition which is best prevented rather than to be treated. The incidence of obstructed labour can be brought down by improving our health care system, especially at the peripheral areas.The most effective way to reduce the incidence of obstructed labour is to improve the health and nutrition of children during their rapid periods of growth, ieinfancy, early childhood, and adolescence.

Proper antenatal check ups.Proper use of Partograph to identify any deviation from normal labour so that timely intervention can be done.It is an inexpensive tool to monitor and prevent obstructed labour.

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