

STUDY OF MATERNAL AND FETAL OUTCOME IN OBSTRUCTED LABOUR IN A TERTIARY CARE CENTRE

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ABSTRACT:

Background and objectives: To ascertain the prevalence of obstructed labour and to research numerous risk variables that affect obstructed labour. To research the problems related to pregnancy and birth and, investigate about maternal and perinatal deaths in addition to the numerous variables that contribute to these losses. To discuss methods for reducing obstructed labour with the available resources.

Methods: A prospective study was carried out for a full year, from January 2020 to December 2020, in the Obstetrics and Gynaecology Department at Kurnool Medical College, Kurnool, Andhra Pradesh, India, in which all term pregnant women with obstructed labour who attend labour room emergency referred from outlying health care facilities were included.

Results: In the present study, 69% of the cases were 21 to 30 years old, followed by 19% aged 21 and 12% aged 31 and older. Mean height was 142.7 ± 4.0 cm. 59.5% of the pregnant women were primigravida, followed by second (16.7%) and third (11.9%) gravidas. 14.7% of cases with a labour duration of ≤ 24 hours had PPH and 62.5% of cases with a labour duration >24 hours had PPH. 11.8% of cases with a duration of labour ≤ 24 hours and 50% of cases with a duration of labour >24 hours had APGAR of 0, and 50% of cases with a duration of labour ≤ 24 hours and 0% of cases with a duration of labour >24 hours had APGAR of 10.

Conclusion: Even though obstructed labour is preventable, it still significantly increases mother and infant morbidity in our country. As a result, prevention is better than treatment. Enhancing remote healthcare can reduce incidence.

Keywords: Obstructed labour, perinatal mortality, maternal and infant morbidity

INTRODUCTION:

Obstetric conditions like obstructed labour can be avoided which can result in short and long-term disabilities as well as maternal and neonatal morbidity and mortality. 5% of live births worldwide are impacted by obstructed labour. It is more common in developing countries and causes about 8% of all pregnancy-related deaths [1,2,3].

Multiple studies from other emerging economies discovered a prevalence of 2-8% of all births in hospitals. Obstructed labour impacts 0.56 to 1.8% of all births in India's referral hospitals. It contributes for 11.4% of mortality rates in Eastern India and 39% of all obstetric hospitalizations worldwide, making it a major cause of hospitalisation. Obstructed labour is defined as neglected labour in which vaginal delivery is not possible where in spite of passage of unreasonably long time in good strong labour due to some mechanical obstruction to the passage of the fetus through the pelvis and the birth canal leading to severe maternal distress in the process, which also often distresses or even kills the fetus. [2,3,4].

It refers to a situation wherein further labour advancement is not possible without assistance. As a woman's birth canal is not as straight and wide as primates, it tends to be more common in human beings than in primates. Its occurrence is regarded as a sign of a poor level of obstetric practice in any environment because obstructed labour is due to mechanical difficulties which take place where access to proper obstetric care might not be available or utilized. Because mortality from obstructed labour is commonly listed under other conditions such as sepsis, uterine rupture, traumatic vaginal births, and postpartum haemorrhage, the real figure is underestimated⁸. In the industrialised world, however, advancements in obstetric practice have rendered obstructed labour almost obsolete. Obstructed labour, on the other hand, is still a major cause of maternal and perinatal morbidity and mortality in developing countries. [5,6].

The majority of deaths occur among poor, uneducated, hard-to-reach women who live in rural regions with limited or no access to experienced birth attendants, indicating insufficient and low-quality obstetric care. Obstructed labour can be avoided by the antenatal diagnosis of risk factors that are likely to cause protracted labour, constant attention in all the stages of labour with thorough knowledge of pelvic evaluation and partogram, and early referral and intervention. This can be ensured by improving our health care system, access to skilled birth attendants during delivery so that they can identify and timely manage the complications. This can be achieved by enhancing our healthcare system and ensuring that expectant mothers have access to trained birth attendants who can recognise and promptly handle the difficulties [7,8,9]. Neglected Obstructed labour causes significant maternal and perinatal morbidity and mortality due to postpartum haemorrhage, sepsis, rupture uterus, anaesthetic complications, morbidity from caesarean delivery, prolonged stay at the hospital, huge cost of care, urinary incontinence, and genitourinary fistulas which if not treated may lead to physical illness, infections, constant depression, divorce and social outcast. Fetal death from asphyxia, brain damage causing cerebral palsy, and developmental disability are also common.

The obstruction can only be relieved through an operative delivery, either caesarean section or instrumental delivery or destructive operations. With the advent of antibiotics, Caesarean section remains the mainstay of treatment in obstructed labour because of a lack of skills to perform operative vaginal deliveries or destructive operations associated with a gamut of complications. This decreases the incidence of shock, haemorrhage, and trauma of destructive operations(9).If the foetus is malpositioned, soft tissue is obstructing the birth canal, or the woman is having trouble bearing down because of analgesia, an instrumented vaginal birth can be performed [8,9].

Overall, it appears advisable to individualise the case, relying on the obstetrician's expertise and experience to choose the optimum way of delivery. Even under poor conditions, improved judgement and competent surgery may be preferable. Obstetric care in our nation, in which more over fifty percent of the population resides in rural regions, is subpar, and most births are still performed by untrained individuals [8,9,10]. Poor quality and limited access to obstetric treatment outweigh all other variables in increasing obstetric morbidity and death. As a result, this study was undertaken with all of the aforementioned considerations in mind.

MATERIAL AND METHODS:

A prospective study was conducted in the department of Obstetrics and Gynaecology in Government General Hospital, Kurnool a tertiary care hospital, for a period of one year i.e., from January 2020 to January 2021 where the cases are referred from peripheral health care centres. All term pregnant women with obstructed labour, attending the labour room emergencies.

Methodology:

Informed consent was obtained from pregnant women who fulfilled the inclusion criteria. A detailed history of the pregnant women diagnosed with obstructed labour was taken and was subjected to thorough examination, relevant investigations were done as per proforma enclosed. A planned emergency Caesarean section was performed, and these patients were followed up until they were discharged from the hospital for the maternal and foetal outcome. Statistical analysis was done by entering data into a Microsoft Excel chart and using SPSS version 21. The continuous data were represented as mean \pm SD and categorical data as percentages. A Chi-square test was the statistical tool used in the study. A P-value of less than 0.05 was considered statistically significant.

Inclusion Criteria:

All full-term expectant women who presents with features of obstructed labour.

Exclusion Criteria:

No signs and symptoms of obstructed labour

RESULT:

Out of 8860 total deliveries cases presented the incidence of obstructed labor was 42 (0.47%).

Table 1: Age distribution.

Age category	Number	Percentage
<21 years	8	19%
21 to 30 years	29	69%
31 years and above	5	12%
Total	42	100%

In the current study, the majority i.e. 69% of the cases were in the age group of 21 to 30 years followed by 19% in the age group of <21 years and 12 % in the age group of 31 years and above. The mean age of the study population was 24.3±4.1 years.

Table 2: Distribution of height

Height	Number	Percentage
<140 cms	9	21.4%
140 to 145 cms	28	66.7%
>145 cms	5	11.9%
Total	42	100%

In the current study, the majority of women i.e., 66.7% were in the height of range 140 –145 cms, followed by 21.4% with height 145 cms. The mean height of the study population was 142.7 ± 4.0 cms.

Table 3: Distribution by Gravida.

Gravida	Number	Percentage
Primi	25	59.5%
2	7	16.7%
3	5	11.9%
4	2	4.8%
5	3	7.1%
Total	42	100%

In the current study, the majority i.e. 59.5% of the subjects were Primigravida followed by second gravida (16.7%) and third gravida (11.9%).

Table 4: Distribution by the Labour duration.

Duration of Labour	Number	Percentage
<24 hours	34	81%
>24 hours	8	19%
Total	42	100%

In the current study, the majority i.e. 81% of the cases had a duration of labour of 24 hours. The mean duration of labour was 19.3± 5.6 hours.

Table 5: Distribution by Obstructed labour signs.

Signs of Obstructed labour	Bandl's Ring		Caput/Moulding	
	Number	Percentage	Number	Percentage
YES	7	16.7%	40	95.2%
NO	35	83.3%	2	4.8%
Total	42	100%	42	100%

In the current study, Bandl's ring was formed in 16.7% of the cases and was absent in 83.3% of the cases. Caput/moulding was present in 95.2% of the cases.

Table 6: Distribution by Obstructed Labour cause.

Causes	Number	Percentage
Cephalo-Pelvic Disproportion (CPD)	19	45.2%
Deep Transverse Arrest (DTA)	2	4.8%
Contracted Pelvis	7	16.7%
Occipito-posterior Position	6	14.3%
Face presentation	3	7.1%
Brow presentation	1	2.4%
Compound presentation	1	2.4%
Hydrocephalus	1	2.4%
Transverse lie	2	4.8%
Total	42	100%

In the present study, the cause in the majority i.e. 45.2% of cases was Cephalopelvic disproportion (CPD) followed by the contracted pelvis and occipito posterior in 16.7% and 14.3% respectively. Other causes include Deep transverse arrest, Face presentation, brow presentation, transverse lie, hydrocephalus and brow presentation.

Table 7: Population distribution by Surgery performed.

Surgery performed	Number	Percentage
EMLSCS (Emergency LSCS)	38	90.5%
EMLSCS + Caesarean Hysterectomy	1	2.4%
Laparotomy + Rent repair	3	7.1%
Total	42	100%

In the present study, emergency LSCS surgery was carried out in 90.5% of the cases. Laparotomy with rent repair was performed in 7.1% of instances, while emergency LSCS and caesarean hysterectomy were performed in 2.4% of cases.

Table 8: Distribution by Intra-OP Bladder Injury.

Intra-OP Bladder Injury	Number	Percentage
Present	2	4.8%
Absent	40	95.2%
Total	42	100%

Bladder injury was observed in 4.8% of the cases in the current study.

Table 9: Distribution by Rupture Uterus.

Rupture Uterus	Number	Percentage
Present	3	7.1%
Absent	39	92.9%
Total	42	100%

Rupture uterus was seen in 7.1% of the cases.

Table 10: Distribution by Method of Extraction.

Mode of Extraction	Number	Percentage
Vertex	14	33.3%
Patwardhan	22	52.4%
Breech	6	14.3%
Total	42	100%

In the current study, in the majority i.e. 52.4% of cases Patwardhan was the most common method of extraction followed by Vertex in 33.3% and Breech in 14.3% of the cases.

Table 11: Distribution by presence of PPH.

PPH	Number	Percentage
Present	10	23.8%
Absent	32	76.2%
Total	42	100%

In the current study, 23.8% of the patients involved postpartum haemorrhage.

Table 12: Distribution by maternal morbidity.

Complication	Number	Percentage
Wound dehiscence	5	12%
Peritonitis	1	2.4%
Paralytic Ileus	8	19%
Shock(haemorrhagic+septic)	2	4.8%
VVF	1	2.4%
Puerperal Sepsis	8	19%
None	25	59.5%

In the present study, maternal complications were seen in 40.5% of the cases. The most common complication was Paralytic ileus in 19% of the cases and Puerperal sepsis in 19% of the cases followed by wound dehiscence in 12% of the cases. Peritonitis, Shock and VVF were seen in 2.4%, 2.4% and 2.4% of cases respectively.

Table 13: Distribution by maternal deaths.

Maternal deaths	Number	Percentage
Yes	1	2.4%
No	41	97.6%
Total	42	100%

Maternal mortality occurred in 2.4% of the patients in the present study.

Table 14: Distribution by Perinatal Outcome.

Perinatal Outcome	Number	Percentage
Alive	34	81%
Still born	8	19%
Total	42	100%

In the current study, the stillbirth rate was 19% of the cases.

Table 15: Distribution by APGAR score at 1 minute

APGAR score at 1 minute	Number	Percentage
0	8	19%
2	3	7.1%
4	4	9.5%
6	10	23.8%
8	17	40.5%
Total	42	100%

In the current study, at 1 minute, the APGAR score was 8 in 40.5% cases, 23.8% cases had a score of 6, 19% cases had a score of 0 and 9.5% cases had a score of 4.

Table 16: Distribution by APGAR score at 5 minutes.

APGAR at 5 minutes	Number	Percentage
0	8	19%
4	3	7.1%
6	4	9.5%
8	10	23.8%
10	17	40.5%
Total	42	100%

In the current study, at 5 minutes, the APGAR score was 10 in 40.5% cases, 23.8% cases had a score of 8, 19% cases had a score of 0 and 9.5% cases had a score of 6.

Table 17: Distribution by Birth weight of the baby.

Birth weight	Number	Percentage
<2.5 kgs	4	9.5%
2.5 – 3.5 kgs	25	59.5%
>3.5 kgs	13	31%
Total	42	100%

In the current study, in the majority i.e. 59.5% of the subjects, the weight of the newborn was between 2.5 to 3.5 kgs, followed by 31% with birth weight >3.5kgs and 9.5% with birth weight.

Table 18: Distribution by Neonatal complications.

Birth asphyxia	7	20.5%
MAS	4	11.9%
Neonatal sepsis	3	8.8%
Neonatal Jaundice	3	8.8%
No complications	17	50%
Total	34	100%

Birth asphyxia, which occurred in 20.5% of cases in the current study, was the most frequent newborn complication, following by meconium aspiration syndrome (11.95% of cases), neonatal jaundice (8.8% of cases), and sepsis (8.8% of cases).

Table 19: Distribution by NICU admissions.

NICU admissions	Number	Percentage
Yes	17	40.5%
No	25	59.5%
Total	42	100%

In the present study, out of the NICU admissions, 35.3% were admitted for one day followed by 29.3% and 11.8% admitted for two and three days respectively. 5.9% each of the cases were admitted for four, five, six and even days respectively.

Table 20: Distribution by Neonatal deaths.

Neonatal deaths	Number	Percentage
Yes	8	23.5%
No	26	76.5%
Total	34	100%

Neonatal Deaths occurred in 23.5% of the cases in the current study.

Table 21: Distribution by causes of Neonatal deaths.

Causes of Neonatal deaths	Number	Percentage
HIE	3	37.5%
MAS	3	37.5%
Sepsis	2	25%
Total	8	100%

In the current study, among the neonatal deaths, 37.5% of the deaths were due to Hypoxic Ischemic Encephalopathy (HIE) and 37.5% of the deaths were due to Meconium Aspiration Syndrome (MAS) and 25% of the deaths were due to sepsis.

Table 22: Distribution based on Perinatal Mortality Rate.

Perinatal mortality rate	Percentage
16(8 still born+ 8 neonatal deaths)	38%

Table 23: Comparison between Duration of Labour and Maternal morbidity

	Duration of Labour <24 hours		Duration of Labour >24 hours		P-value
	Number	Percentage	Number	Percentage	
PPH (Post Partum Hemorrhage)					
Yes	5	14.7%	5	62.5%	Chi-square = 8.155 p = 0.004
No	29	85.3%	3	37.5%	
Total	34	100%	8	100%	
Post OP Complications					
Yes	10	29.4%	7	87.5%	Chi-square = 9.070 p = 0.003
No	24	70.6%	1	12.5%	
Total	34	100%	8	100%	

In the current study, 14.7% of the cases with a duration of labour 24 hours had PPH and the difference was statistically significant. 29.4% of the cases with a duration of labour 24 hours had post OP Complications and the difference was statistically significant. In the present study, PPH was present in 14.7% of patients with labour lasting less than 24 hours and 62.5% of instances with labour lasting over 24 hours. This difference was statistically significant. Post-operative complications occurred in 29.4% of instances with labours lasting under 24 hours and in 87.5% of cases with labours lasting over 24 hours; the differences were statistically significant. NICU admissions occurred in 50% of instances with labours lasting longer than 24 hours and 38.2% of cases with labours lasting less than 24 hours.

Table 24: Comparison between Duration of Labour and Perinatal morbidity.

	Duration of Labour <24 hours		Duration of Labour >24 hours		P-value
	Number	Percentage	Number	Percentage	
Still Births					
Yes	4	11.8%	4	50%	Chi-square = 6.140 p = 0.013
No	30	88.2%	4	50%	
APGAR Score					

at 5 min					
0	4	11.8%	4	50%	Chi-square = 10.546 p = 0.032
4	3	8.8%	0	0	
6	3	8.8%	1	12.5%	
8	7	20.6%	3	37.5%	
10	17	50%	0	0%	
NICU Admissions					
Yes	13	38.2%	4	50%	Chi-square = 0.372 p = 0.542
No	21	61.8%	4	50%	
Total	34	100%	8	100%	

In the current study, 11.8% of the cases with a duration of labour 24 hours had stillbirths and the 63 difference was statistically significant. 11.8% of the cases with a duration of labour 24 hours had APGAR of 0 and 50% of the cases with a duration of labour 24 hours had APGAR of 10 and the difference was statistically significant. 38.2% of the cases with a duration of labour 24 hours had NICU admissions.

DISCUSSION:

Approximately 530,000 women die each year as a consequence of pregnancy-related complications, with developing countries accounting for nearly 99 per cent of these deaths. Obstructed labour is an important cause of maternal and neonatal death in low-income nations, alongside haemorrhage, sepsis, and hypertensive disorders. Obstructed labour occurs as a result of the "Three delays model" described by Thaddeus and Maine is the most common framework used to evaluate the circumstances surrounding a maternal death: a delay in making a decision to seek medical help, a delay in getting to the hospital, and a delay in receiving proper treatment.

Over a year the present study analyses obstructed labour prevalence, risk factors, complications, foetal-maternal outcomes, and measures to improve care of the pregnant mothers so that both mother and baby have a better outcome.

1. Incidence of obstructed labour.

Our hospital reported a lower incidence of obstructed labour (0.47 percent) which was lower than studies conducted in other parts of India and around the world. The number of deliveries during the study period was less compared to previous years because the Government General Hospital, Kurnool, was one of the state's COVID-19 hospitals during the COVID-19 pandemic. There is a decreasing trend in the incidence of obstructed labour because of improvement in antenatal and intrapartum care.

2. Age.

69% of the cases were between 21 and 30 years which was comparable with Sabyasachi Mondal et al, Gayathri Mthurya et al, Sangeetha Rai et al, and Gebresilasea Gendisha Ukke et al. Early marriage among illiterate persons in rural and remote areas and high fecundity explains the high prevalence of obstructed labour in these age groups. According to Jaspinder et al young age, ignorance of antenatal care, and lack of health education may have stopped them from seeking care early in pregnancy or until obstetric concerns were evident. When dealing with expectant mothers of younger ages, healthcare professionals in the antenatal and delivery care fields should be constantly cautious. Because the majority of obstetrical complications occur in young women, this is the area where the most progress and advancement can be accomplished. [9,10,11].

3. Gravida

Mihir Kumar Sarkar 2020 et al (49.3%), Gayatri Mathuriya 2019 et al (30%), Babagana Bako 2018 et al (55.1%), and Syed Masuma Rizwi 2015 et al (55.1%) found that most patients with obstructed labour were primigravida (59.5%). Multiparous mothers and their children have less complications. Most of the studies, including this one, shows that nulliparous women are at higher risk. It also indicates that untrained delivery attendants at peripheral health centres have poor expertise in pelvic examination and plotting of partographs. [11,12].

4. Booking status

In contrast to Mihir Kumar Sarkar et al, Sheetal Shinde et al, Sangeetha Rai et al, Babagana Bako et al, and Syed Masuma Rizwi et al, 85.7% of cases in the current study were unbooked. This increased maternal and perinatal morbidity and mortality. This can be enhanced by the literacy rate, health education, and good antenatal checkups at their doorsteps by community mobilisation with traditional birth attendants. Antenatal

care helps monitor pregnancy and minimise mother and child mortality during pregnancy and delivery. According to WHO guidelines, four ANC visits are considered a convenient series for providing all the necessary care and information to mothers and their newborns, as well as preparation for the upcoming delivery. The screening that occurs during ANC visits enables midwives and nurses to identify high-risk groups and individuals who require special or additional monitoring and care. As a result, prenatal care is a powerful tool for recognizing and identifying mothers and babies who are at higher risk than normal. Early anticipation of complications and focused interventions help to avoid potentially negative outcomes.

A new strategy group antenatal care (G-ANC) is a viable alternative to the conventional method of ANC and is focussed on 3 major components i.e. medical assessment, knowledge and social support.

5. Residing area

Compared to Alem Getachew 2021 et al. (74.75%), Mihir Kumar Sarkar 2020 et al. (73.1%), Gayathri Mathuriya 2019 et al. (85.5%), Sangeetha Rai 2018 et al. (73.1%), Tahaffi Qayoom 2018 et al. (87.5%), and Syed Masuma Rizwa (87.5%), 85.7% of patients lives in rural areas far from the chosen hospital. Providing maternity waiting homes near medical institutions that give antenatal and emergency obstetric care, especially for persons in remote or indigenous communities [13,14,15].

6. Educational status.

Like Babagana Bako et al. 2018 (50.2%), Priya Sharma et al. 2015 (71.3%), and Sabyasachi Mondal et al. 2013 (52%), 78.5% of our women were illiterate. Lacking medical education, women miss pregnancy appointments, don't understand health issues, and ignore medical recommendations. Attending a prenatal clinic gives them treatment, education, and preparation to birth in a hospital.

7. Socio-Economic status.

India is a developing country with the majority of the population living in rural areas and working as daily wage workers. The prevalence of obstructed labour was high in the current study (95.2%) which was comparable to studies conducted by Gayathri Mathuriya 2019 et al (85.5%). Women from poor socio-economic back ground seek antenatal care late in pregnancy or during delivery if there is a complicated and difficult stage of labour. Costs of treatment and travel affect prenatal care utilisation [13,14,15].

8. Height.

A significant obstetric risk factor is short stature. A height of 145 cms (4 ft 10 inches) is considered small stature by WHO. Maternal short stature increases the likelihood of obstructed labour due to contracted pelvis and CPD. It's also a measure of a woman's overall health and nutritional state dating back to her childhood, with hereditary factors playing a significant role. As a result, one of the simplest measurements to undertake is maternal height measurement, which should be included in most antenatal programmes. The use of maternal height as an indicator of CPD and the need for special care at delivery is an important measure to prevent Obstructed labour. Most women with obstructed labour in the current study are between 140 and 145 cm (66.7%), with heights under 140 cm coming in second (21.4%).

Burgees (1997) found statistically significant relationship between Anthropometric measures and obstructed labour and caesarean section.

Birth asphyxia, low Apgar scores, and perinatal mortality are more common in shorter women.

Labour characteristics.

9. Duration of labour

In the current study, 81% of the patients had a duration of labour of fewer than 24 hours and 19% had a duration of labour of more than 24 hours. Cases that had a duration of labour of >24 hours had more maternal and perinatal morbidity and mortality similar to the studies conducted by Alem Getachew 2021 et al, Gebresilasea Gendisha Ukke 2017 et al, Islam JA 2012 et al. Genito-urinary and recto-vaginal fistulas are consequences of women's insufficient access to timely emergency obstetric care in situations where cephalopelvic disproportion, malpresentation, or malposition cause prolonged and obstructed labour. [14,15].

Preventing obstructed labour requires a partogram and safeguards. Partographs aren't often utilised. Partogram misuse increases maternal and neonatal morbidity and mortality. Partographs show mother and baby in labour. With this visual help, labour can be improved, maternal and foetal morbidity and death can be reduced, and anomalous labour can be identified. Few medical professionals record partograph results. The partogram and safe labour procedures should be taught. Hospitals should emphasise the proper use of a partograph in all

labouring patients to prevent protracted and obstructed labour, which risks the mother and baby's health. Retraining enhances case detection, file maintenance, and rule compliance.

10. Cause of obstructed labour.

The most common causes of labour obstruction were cephalopelvic disproportion (45.2%), constricted pelvis (16.7%), and malposition (14.3%). This is similar to studies conducted by most authors mentioned below. present study 45.2%, Mihir kumar Sarkar -77%, gayathri Mathuriya 36.3%. In multipara obstructions were due to malpresentations.

11. Mode of delivery.

In the current study 90% of deliveries were LSCS According to the table below, 7.1% (3) of cases had ruptured uterus, requiring laparotomies with uterine repairs and one Caesarean hysterectomy (2.4%). LSCS has minimal death and morbidity rates, comparable to Tashaffi Qayoom, Sheetal Shinde, Priya Sharma, and others. Destructive procedures are tough and risky and are not performed in the current study

12. Mode of extraction of Baby.

The Patwardhan's approach was the most prevalent mode of foetal extraction at Caesarean section (52.4%), followed by the vertex (33%) and breech (14.3%). In line Radheshyam Bairwa et al in contrast to studies conducted by Sheetal Shinde 2018 et al where mode of extraction was vertex i.e.66%. A big caput and moulding make head delivery problematic. 92.9% of patients had a normal lower uterine area; 7.1% did not. As Bairwa et al. Compared to other approaches (2%), Patwardhan technique is safe, easy and an appropriate method of delivery of deeply impacted head during LSCS.

13. Per Operative Findings

Lower uterine segment was stretched and distended in 92.9% and normal in 7.1% patients. Lateral uterine angle expansion in 11.9% of cases delivered by Patwardhan technique. The extension of the incision has long-term implications on the patient's future obstetrics and it is a contraindication to subsequent vaginal delivery. These patients had high incidence to traumatic pph. They needed blood transfusions for postpartum haemorrhage.

Gayatri Mathuriya 2019 et al (2.7%), Tashaffi Qayoom 2018 et al (1.7%), Priya Sharma 2015 et al (1%), Syed Masuma Rizwi 2015 et al (1.11%), and Sabyasachi Mondal 2013 et al (1.9%) identified bladder injuries in 4.8% of cases. Sheetal Shinde 2018 et al report 8% and Sangeetha Rai 2018 et al 9.6% bladder injuries. Incidence of Bladder injuries are high in cases of uterine ruptures [14,15,16].

Feto-Maternal Complications And Outcomes.

14. Maternal complications:

a) Rupture uterus.

Comparable to previous studies in the table, 7.1% (3/42) of women had uterine rupture. Primigravida accounts for two out of three occurrences, but multigravida ruptures more often. All cases presented to health care facility more than 12 hours after birth. Most people in undeveloped and emerging nations live in rural areas where they lack education, access to healthcare, anaemia, malnutrition, and birth control. Sangeetha Rai and Sheetal Shinde found high incidence of ruptures in their study compared to current study.

b) Post partum Hemorrhage.

Similar to research by Gayatri Mathuriya et al. 2019 (36.4%), Tashaffi Qayoom et al. 2018 (37.5%), Sabyasachi Mondal 2013 et al. (33.8%), and Ritu Gupta 2012 et al. (28.57%), 23.8% of patients in the current study developed postpartum haemorrhage. Primigravidae are 20/25. PPH in multigravidae (n=17). PPH is greater in Multigravidae. Atonic PPH is most common followed by traumatic. Atonic PPH was managed medically while traumatic PPH was operated on. In refractory situations, compression sutures, devascularization, and caesarean hysterectomy are done [15,16,17].

c) Post operative complications.

Maternal complications were seen in 40% (n=17) in this study. In 19% of instances, sepsis and paralytic ileus occurred, wound dehiscence in 12%. Shock 4.8%, peritonitis 2.8%, and VVF each accounted for 2.4%. In this study, puerperal sepsis and paralytic ileus are more common than in Sangeetha Rai et al. 2018, Priya Sharma et al. 2015, and Syed Masuma Rizwi et al. 2015. Incidence of wound dehiscence is comparable with studies conducted by Priya Sharma et al. VVF incidence is low compared to Sharma et al. (2015) and Rizwi et al (2015). 29.4% (n=10, p=0.004) of the cases with duration of labour <24-hour had post op complications and 87.5% (n=7, p=0.003) of the cases with duration > 24 hours had post-operative problems and the difference was statistically significant.

Increased muscle activity and inadequate fluid intake raise the risk of dehydration and metabolic acidosis in obstructed labour. Genital sepsis is caused by early membrane rupture, and frequent vaginal exams or manipulation outside. Length of the time between membrane rupture and delivery increases risk of SSI.

Associated risk factor. Biggest risk was anaemia. Puerperal sepsis and wound infection are more likely with anaemia. Puerperal sepsis is induced by anaemia, which lowers immune function. Lack of iron and micronutrients slow wound healing (zinc, copper). Postpartum haemorrhage is a complication of anemia which itself increases risk of infection, and wound dehiscence.

There is also significant correlation between intraoperative blood loss during surgery and SSI which was inconsistent with other studies. Blood loss raised SSI risk by 30% per 100 ml, Tran TS et al [17,18].

Duration of surgery also plays important role in the occurrence of SSI. Longer surgeries affect SSI. This study's exhaustive procedure participants become infected. 53.3% of surgeries lasting more than 45 minutes were infected, according to Devajani et al. SSI and 2-hour operations were linked by Lilani et al. Johnson et al. showed that LSCS durations of 31-60 minutes had a greater SSI. According to Shapiro et al., infection doubles every hour of operation. Johnson et al classified the duration of fistula into two groups <30 minutes and >30 minutes.

Obstetric fistula is one of the most serious and tragic childbirth injuries. In order to promote maternal health, Goal 3 strives to prevent and treat obstetric fistulas.

15. Maternal Mortality.

The incidence of maternal mortality in the study was 2.4%. (n=1). maternal death was due to

Septic shock and multiorgan failure compared: Priya Sharma et al. 2015, Sheetal Shinde et al. 2018, Babagana Bako et al. Maternal mortality was due to late recognition and referral of unbooked cases in poor condition.

The hospital should conduct monthly maternal mortality and morbidity audit meetings with minute documentation plans in place to address any flaws.

16. 38% perinatal mortality found. Live births 81%, stillbirths 20%. More stillbirths and poorer APGAR scores were linked to long labours. The average newborn was 3.2 ± 4.6 kg. NICU admissions were 40%. The NICU welcomed babies born after 24-hour labours. In this study, jaundice (8.8%), sepsis (20.5%), and birth asphyxia (20.5%) were the most common conditions. Extended labour impairs placental gas exchange and causes intrauterine hypoxia, causing poor foetal outcome and neonatal mortality.

Reduce prenatal mortality by addressing social, economic, behavioural, and healthcare factors. To increase child survival, better prenatal care, prenatal tetanus toxoid immunisation, sterile disposable cord care kits, resuscitation supplies to birth attendants, neonatal care units at healthcare facilities, and effective referral of high-risk newborns and mothers are needed [20]. Rural India's traditional birth attendants must be trained to identify high-risk qualities because 90% of deliveries are at home. ASHAs and ANMs are vital to health education and patient care.

Establish monthly perinatal mortality audits so that hospital maternity staff and doctors improve their performance and improve neonatal outcome.

CONCLUSION:

Obstructed labour is a preventable condition but it nonetheless causes substantial maternal and perinatal morbidity in our country. Hence measures should be taken to prevent rather than to treat it. Improving distant healthcare can minimise incidence. Recruitment of competent and well-trained personnel at regional medical centers to detect labour dystocia, malpresentation, and malpositions earlier and refer cases to higher centres. Girls and young female's diet, In-depth interviews with health care professionals and patients can provide further information about the mechanism of delay and the causes of unfavourable outcomes for mothers and babies.

Constructing maternal awaiting homes near hospitals or health centres that provide antenatal care and emergency obstetric treatment, particularly for distant and tribal women. Group antenatal care (G-ANC) can improve the quality and use of services for expecting mothers, especially in inadequate care conditions.

"It's said that woman in labour leave their bodies ...they travel to the stars to collect the souls of their babies and return to this world together..."

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