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A STUDY OF MATERNAL AND FETAL OUTCOME OF REFERRED OBSTETRIC CASES IN A TERTIARY CARE CENTRE.

Obstetrics & Gynaecology

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ABSTRACT

Introduction- Referral in appropriate time is a challenge to health care providers since any delay in referral affects the maternal and fetal outcome. This study is Carried out in Jorhat medical college and hospital which is a tertiary care centre .Here patients are referred from various districts in the upper assam and urban areas.Here the study conducted in JMCH reflects the level of health care provided in the periphery .

Aims And Objectives-

- To assess the maternal and fetal mortality and morbidity of referred obstetric cases in a tertiary care centre
- To find out the cause of referral to a tertiary care centre.

Materials And Methods

This study will include 250 pregnant women both primigravida and multigravida willing to participate and meeting the inclusion and exclusion criteria referred to the department of OBSTETRICS AND GYNAECOLOGY,JORHAT MEDICAL COLLEGE AND HOSPITAL during a period of one year. It is a prospective observational study for a period of one year.July 2021 to June 2022. **Results-** In our study it is seen that major cause of referral is hypertensive disorders of pregnancy (18.5%). In our study major cause of maternal morbidity was anemia for blood transfusion i.e 19 cases comprising 7.87%,. In our study maternal mortality is 2.3% .Major cause of maternal mortality is hypertensive disorder of pregnancy 50% and major cause of neonatal mortality hyperbilirubinemia 11.11%.Neonatal mortality in our study 5.97%. **Conclusion** Improved infrastructure of first referral unit with availability of blood bank,NICU facilities,anaesthetic facilities and availability of specialist in the field of obstetrics at the referral unit will definitely help to reduce the maternal morbidity and mortality and will also reduce the burden in tertiary care centre.

KEYWORDS

Referral, maternal mortality, morbidity, neonatal mortality.

INTRODUCTION

Antenatal care is the care of women during pregnancy whose aim is to achieve healthy mother and healthy baby at the end . Indian women of child bearing age 15-45 years constitute 22 % of the population .They are an especially vulnerable group due to the risk of pregnancy and child bearing. Maternal anemia, low birth weight of the newborn, infant mortality and maternal mortality are some of the burning issues in developing countries. [1]

The term referral is used to denote any movement of health care seeking in individuals from the lower to a higher level of health care in the health system ,whether advised by health workers or not.[3]. Referral systems have been considered as an important component of health system in developing countries since the emergence of primary health care.[1] Woman living in rural areas and those belong to poorer communities have higher maternal mortality.[2]

Referral in appropriate time is a challenge to health care providers since any delay in referral affects the maternal and fetal outcome. Hence identification of high risk pregnancies and referral in appropriate time will help to reduce maternal and fetal mortality and morbidity. An efficient referral system may provide access to treatment and skills by linking different levels of care viz primary, secondary, tertiary through appropriate referrals . [4-7].

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Sampling Method –
Stratified sampling technique.

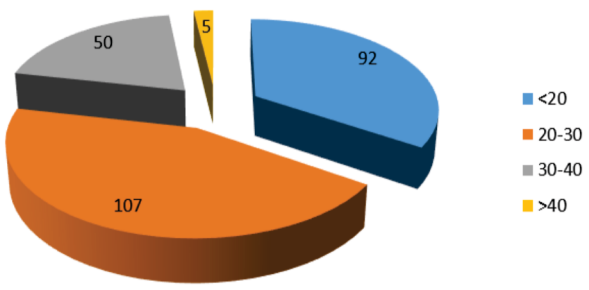
Inclusion Criteria –

- Pregnant women who have crossed 28 weeks of gestation.
- Willing to participate in the study
- Booked and unbooked cases.

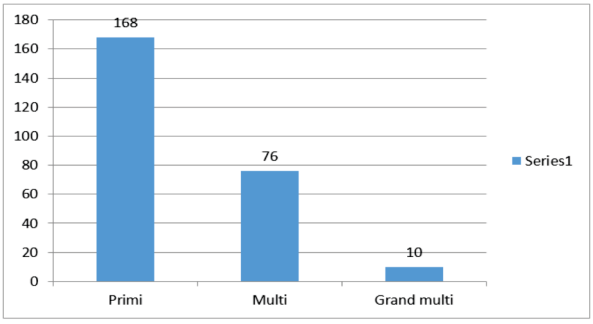
Exclusion Criteria-

- Pregnant women of less than 28 weeks of gestation.
- Not willing to participate in the study.
- Post partum referrals.
- Self referrals.
- Congenital anomalies.

RESULTS AND OBSERVATIONS



Age distribution



According to parity.

Table-1 Showing contents of referral slip

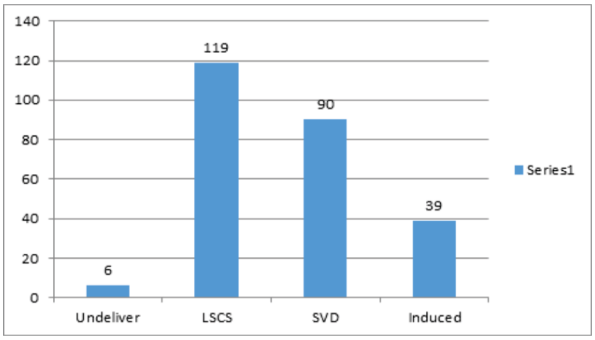
	Patient particulars	Treatment recieved	Diagnosis	Time of referral
Number	220	102	248	42
Percentage	86.61%	40.16%	97.64%	16.54%

Table 3-Distribution of cases according to cause of referral

CAUSE OF REFERRAL	NO. OF CASES	PERCENTAGE
OLIGOHYDRAMNIOS	23	9.06%
PIH	33	12.99%
CPD	5	1.97%
PRETERM LABOUR	21	8.27%
POST DATED	24	9.45%
PROLONG LABOUR	28	11.02%
TWIN	2	0.78%
POST CS	40	15.75%
ANAEMIA	14	5.51%
ECLAMPSIA	14	5.51%
FETAL DISTRESS	11	4.33%
RH NEGATIVE	6	2.36%
DEC FM	2	0.79%
BOH	3	1.18%
MALP	11	4.33%
APH	4	1.57%
OBS LABOUR	4	1.57%
NO STAFF	3	1.18%
NO CAUSE	6	2.36%

Table 4. Distribution of cases showing cause of maternal morbidity

TYPE OF COMPLICATIONS	NO. OF CASES	PERCENTAGE
Post partum Eclampsia	5	1.97%
Blood transfusion for anemia	19	7.87%
Atonic PPH	18	6.69%
Traumatic PPH	11	3.94%
ICU care	10	4.33%
Wound infection	3	1.18%



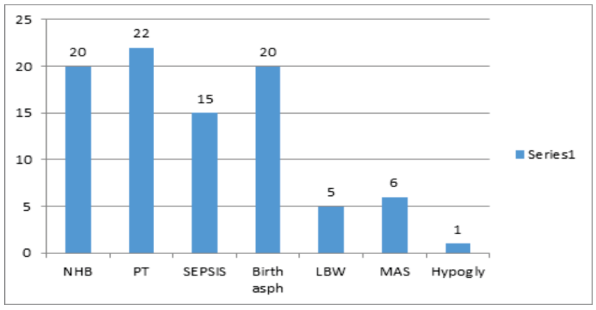
Distribution of cases according to mode of delivery.

Table 6. Showing the cause of maternal mortality.

CAUSE OF MATERNAL MORTALITY	NO. OF CASES	PERCENTAGE(%)
ARDS	2	33.3%
ECLAMPSIA WITH PULMONARY EDEMA	3	50%
DIC	1	16.67%

Table 8. Showing distribution in neonatal outcome.

NEONATAL OUTCOME	NO OF CASES	PERCENTAGE(%)
LIVE HEALTHY BABY	159	63.35%
NICU ADMISSION	89	35.46%
NEONATAL DEATH	15	5.97%
STILL BORN	3	1.2%



Cause Of NICU Admission

Limitations-

The study was limited by the following-

1. Less sample size
2. Lesser duration of study.

DISCUSSION

In our study majority of patients 42.13% were in the age group of 20-30 years.In our study majority of the patients were primigravida comprising 66.14% ,while 29.92 % were multigravida, and 3.92% were grand multigravida which is similar to the study conducted by Mahendra G,Kavya B.S, [9] . In our study 75.98% of the patients travelled by government vehicle ,while 24.02% via private vehicle. In our study it is seen that majority of the referral slips not completely filled.In the study conducted by Chaturvedi et al study [15] 72% of referred cases had a referral slips but not filled properly. In our study it is seen that major cause of referral is hypertensive disorders of pregnancy (18.5%).Similarly in the study conducted by Divya Goswami et al [13] where major reason for referral was pregnancy induced hypertension(22.05%). In our study major cause of maternal morbidity was anemia for blood transfusion i.e 19 cases comprising 7.87%,followed by atonic postpartum haemorrhage 18 cases with 6.69% .Similar to our study by Rekha Jakhar et al [11] where major cause of maternal morbidity was anemia 188 cases . In our study the most common indication of LSCS was post CS 33.61%,followed by prolonged labour 12.60%. In our study maternal mortality was 2.3%.

Causes of maternal mortality in comparison with other studies.

Causes	Present Study	Dr Vaishali Jain et al study	Gupta et al study	Rekha jhakar et al
Hypertensive disorder complications	50%	38%	35%	11.11%
ARDS	33.3%			11.11%
DIC due to obstetric hemorrhage	16.67%	26%	20%	55%

Table showing neonatal outcome in comparison with other studies.

NEONATAL OUTCOME	NO OF CASES	PERCENTAGE(%) PRESENT STUDY	Khatoon A et al study	Poornima M et al	Rathi Charu et al	Umesh Sabale et al
LIVE HEALTHY BABY	159	63.35%	87%	91%	90%	89.51 %
NICU ADMISSION	89	35.46%		27%		14.36 %
NEONATAL DEATH	15	5.97%		8%	28.23 %	5.38%
STILL BORN	3	1.2%	13%	9%	9%	10.23 %

CONCLUSION

Referral to a higher centre is a critical step in management of Obstetric cases. Poor antenatal care is a risk factor for pregnancy outcomes of

both the mother and baby.In our present study it has been seen that poor antenatal and intranatal care at the periphery level is mainly responsible for poor maternal and perinatal outcome. Lack of transport facility ,lack in the recognition of need of urgent referral are some of the reasons of delay.The quality of information provided on the referral slips need to be adequate.Detailed referral slips with timely referrals might help in taking appropriate intervention at proper time in the referring hospital.

Improved infrastructure of first referral unit with availability of blood bank, NICU facilities, anaesthetic facilities and availability of specialist in the field of obstetrics at the referral unit will definitely help to reduce the maternal morbidity and mortality and will also reduce the burden in tertiary care centre.

Improving female education ,health education and awareness at the community level by mass media and non government organizations can improve the health and social status of women in rural areas.

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