



CLINICAL OUTCOME OF PRE-ECLAMPSIA - A RETROSPECTIVE STUDY

Obstetrics & Gynaecology

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ABSTRACT

Background: Hypertensive disorders are one of the most important causes of perinatal and maternal morbidity & mortality in both developed & developing countries accounts for 10–15 % of maternal deaths. **Aims & Objectives:** - To analyze the maternal and fetal outcomes in preeclampsia cases **Methods:** A retrospective study carried out on 60 pregnant women from 24 weeks to full term admitted with hypertensive disorders for a period of 1 year from March 2021 To March 2022 .Maternal and perinatal complications were noted. **Results:** out of total 60 cases 66% booked cases, 34% unbooked cases Median age 19-29 yrs. most of the cases are primi accounts for 65%. **Maternal outcomes-** HELLP (8%), Antepartum hemorrhage (6%), Eclampsia (14%), PRESS syndrome (8%), Renal failure (1%) **Fetal outcomes-** NICU Admissions (18%), neonatal deaths (6%), IUGR (12%), IUD (5%), Respiratory distress syndrome (38%), Neonatal jaundice (26%), Asphyxia (22%), Neonatal convulsion (19%), Necrotizing Enterocolitis (1%). **Conclusion:** To reduce adverse outcomes it is crucial to identify, manage, refer and closely follow-up pregnant women with pre-eclampsia throughout the pregnancy continuum. Educate the patient regarding the imminent signs of eclampsia before the mother develops grave complications.

KEYWORDS

INTRODUCTION:

Hypertensive disorders are one of the most important causes of perinatal and maternal morbidity.

- Incidence is high in developing countries due to hypo proteinemia, malnutrition & poor obstetric facilities. It ranges from 3% to 7% in nulliparas, and is two to five times more with maternal history of this disorder¹
- It is a complex multisystem disorder, pregnancy-specific hypertensive syndrome of reduced organ perfusion related to vasospasm and activation of the coagulation cascade affecting multiple systems. The nervous system is commonly affected and is a cause for eclampsia²

Definition

- Pre-eclampsia is defined as high blood pressure of 140/90 mmHg or more recorded on 2 occasions 4 hours apart with or without proteinuria with any derangement in platelet count, liver enzymes or renal function tests.
- The major risk to the fetus results from decreased placental perfusion leading to decreased blood supply of oxygen and nutrients necessary for fetal growth and wellbeing.

MATERIALS AND METHODS

Study Design -

It is a hospital-based retrospective study carried out on 60 pregnant women from 24 weeks to full term admitted with hypertensive disorders of pregnancy from March 2021 To March 2022.

Study Sample -

This study population comprises women who received antenatal, intra partum care, or postnatal care (up to 12 weeks following birth) at GEMS hospital & those who were referred to GEMS hospital preceding, during or following delivery, and suffered from pre-eclampsia /eclampsia after 24 weeks' gestation.

- This study is conducted after taking permission from ethics committee
- Detailed history & general, physical, abdominal & pelvic examinations were done. Investigations like complete haemogram, LFT RFT, coagulation profile, fundus urine for protein. Obstetric management was done as per existing protocol. Details of labor, spontaneous or induced, method of induction and mode of delivery were recorded.
- Maternal and perinatal complications were noted down.

RESULTS-

Total cases -60
Booked cases-48,
un booked cases-12

Median age- 19-29 years

Mean length of admission 5-7 days

Mean length of admission 5-7 days

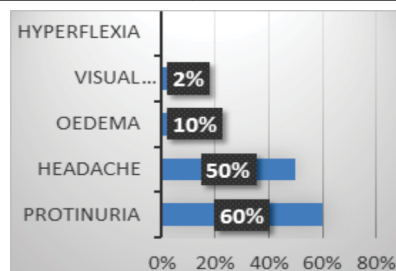
On Admission-In labour-40,

Not in Labour-60,

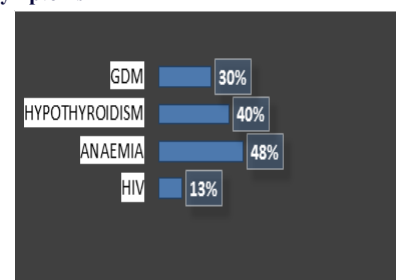
Delivered on admission-30%

Gravida Wise Distribution

GRAVIDA	TOTAL	%
G1	39	65%
G2	16	27%
G3	4	7%
G4	1	1%



Signs & Symptoms



Comorbidities

Pregnancy & Fetal Outcomes

RISK FACTORS	Percentage
Previous pregnancy with PIH (with or without eclampsia)	18%
Multiple gestation	20%

In Women With Pre-eclampsia

PREGNANCY OUTCOME	
Mean gestational age at delivery in weeks	28-38 WEEKS
MODE OF DELIVERY	
Spontaneous vaginal delivery	22 %
Assisted vaginal delivery	4 %
Cesarean section	34 %
WOMEN NOT YET DELIVERED	
Induction	28 %
Progressed labour	17 %
Failed induction	11 %
FETAL OUTCOME	
TOTAL	
Birth weight <2.5 kg	28%
<1.5 kg	6%
NICU Admissions	18%
Neonatal deaths	6%
IUGR	12%
IUD	5%

Maternal Complications

MATERNAL COMPLICATIONS	TOTAL
Antepartum haemorrhage	6%
HELLP	8%
Eclampsia	14%
PRES syndrome	8%
Renal failure	1%

Fetal Complications

Complications	%
Respiratory distress syndrome	38%
Neonatal jaundice	26%
Asphyxia	22%
Neonatal convulsion	19%
Necrotizing Enterocolitis	1%

DISCUSSION

- Advanced maternal age is found to be an independent risk factor for pre-eclampsia, while in this study most of the cases were in the age group 21–25 years
- Among parity common among the primi gravida.³
- Low educational level were likely to develop pre-eclampsia than with high educational level.
- In our study an increase of incidence in severe pre-eclampsia seen mostly in unbooked cases
- We also found associated factors with pre-eclampsia are anemia, diabetes mellitus, previous history of pre-eclampsia & multiple pregnancies.
- Pre-eclampsia in the first pregnancy have seven times the risk of pre-eclampsia in a second pregnancy
- The susceptibility for pre-eclampsia with severe anemia could be due to deficiency of micronutrients & antioxidants.
- We also found in 8 patients, there is reduction in serum levels of calcium, magnesium and zinc, might be the possible cause for pre-eclampsia.

Delivery of the fetus is the only way pre-eclampsia can be treated

- Regarding delivery, 28% of the patients were induced once the fetus reaches maturity and 11% of them needed caesarean section due to failed induction, for absent or reversed diastolic flow with fetal distress.⁴
- The incidence of abruption and eclampsia seen mostly in unbooked cases who came to the hospital at a later stage.
- Regarding perinatal status, In our study, 10% of the neonates are with Apgar score less than 5 and 10% were stillbirths
- Main factors determining perinatal mortality was the lack of regular antenatal checkups, complicated cases of pre-eclampsia and lack of awareness regarding significance of symptoms like decreased fetal movements and late arrival at hospital, all contributing to stillbirths.
- The incidence of perinatal mortality is low in the study, with neonatal deaths being 4.3% when compared to other studies.
- This shows that effective neonatal care with NICU with a good back up by efficient pediatricians will bring out better fetal outcome.

CONCLUSION

- Regular Antenatal care, early diagnosis & treatment of preeclampsia, anemia and health education to the women on significant warning symptoms, of severe pre-eclampsia before the intrauterine demise of fetus or any of the grave complications of the mother which improves the maternal and perinatal morbidity and mortality
- The presence of an NICU with effective neonatal care will improve the fetal outcomes
- To reduce adverse neonatal and maternal outcomes, it is crucial to identify, manage, referral and closely follow-up pregnant women with pre-eclampsia throughout the pregnancy continuum.

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