



## MATERNAL AND PERINATAL OUTCOME IN HYPERTENSIVE DISORDERS IN PREGNANCY

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### ABSTRACT

**Background:** Hypertensive disorders of pregnancy accounts for the majority of referrals in a tertiary centre as it stands one of the major causes of maternal and perinatal morbidity and mortality. The objective was to study the maternal and foetal outcome in patient with hypertensive disorder in a tertiary centre over a period of one year. Hypertensive disorders of pregnancy still holds major cause of maternal and perinatal morbidity and mortality & the commonest cause of referral to a tertiary centre. The objective was to **study the maternal and foetal outcome** in patient with hypertensive disorder in a tertiary centre from **june2016 to may2017 (one year)**. **Method:** Total number of women with severe preeclampsia and eclampsia after 20wks were **146**. Women with medical complications were excluded. Hypertensive women were managed as per existing protocol of the institution, after detailed history, examination and investigations. Anti-hypertensive of choice was labetalol and oral nifedipine, Mgso4 was used as anti-convulsant. **Result:** Out of **146** cases of severe pre-eclampsia and eclampsia, majority **91(62.32%)** were between **21-25yrs** years of age and **76(52%)** were primigravida. We had **21(14.38%)** patients with h/o convulsions and **103(70.5%)** with severe pre-eclampsia of whom **3(2.9%)** had convulsions. Headache was most common complaint. Common mode of delivery was caesarean section **106(72.6%)** women, majority in view of failed induction or non-progress. Maternal complications were noted **43(29.5%)** attributed to renal dysfunction, postpartum haemorrhage, DIC, placental abruption, HELLP, pulmonary oedema Total **146** cases ,live birth **119 (81%)**, **24%** were required NICU care **15(10.27%)** cases were IUFD,**4(2.73%)** babies stillborn.**2 (1.36%)** neonatal deaths,**1(0.68%)** perinatal death. **Conclusion:** Maternal and perinatal complications are more in patients with eclampsia. The incidence of eclampsia can be reduced by regular antenatal care, early recognition and prompt treatment of severe pre-eclampsia.

### INTRODUCTION

Hypertension in pregnancy constitutes the most common medical complication occurring in 12-22% of all pregnancies of which pre-eclampsia remains the leading cause that complicates 10% of all pregnancies. It is defined as new onset of elevated blood pressure and proteinuria (BP $\geq$ 140/90 and  $\geq$  0.3gm protein in 24 hours urine specimen) after 20 weeks of gestation in a previously normotensive woman. It is considered severe if blood pressure and proteinuria are increased substantially (BP $\geq$ 160/110 and  $>$ 5 gm protein in 24 hours urine specimen) or symptoms of end organ damage are present. Eclampsia is defined as the new onset of generalized tonic clonic seizure in a woman with severe preeclampsia. WHO estimated that approximately 60,000 women die each year from pre-eclampsia world-wide. Pre-eclampsia and eclampsia account for 24% of all. Maternal deaths in India, mainly attributed to complications of preeclampsia and eclampsia

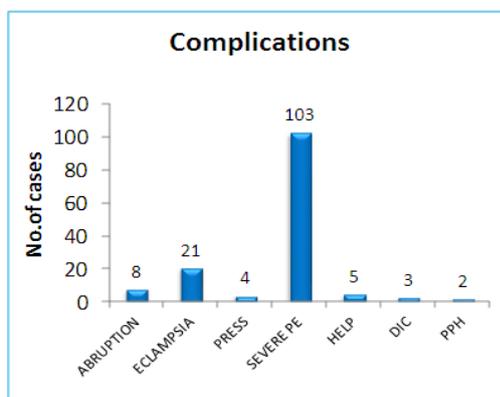
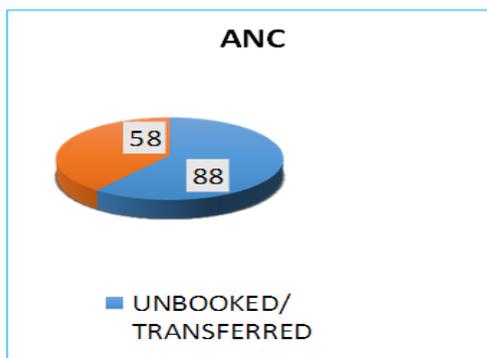
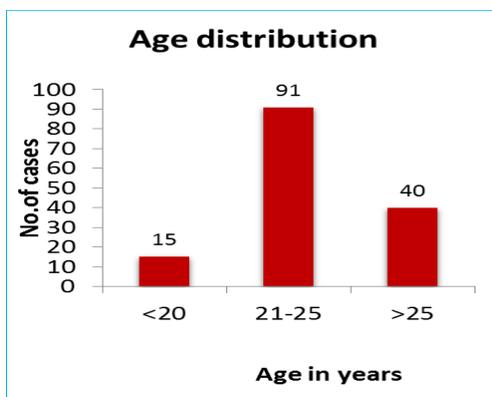
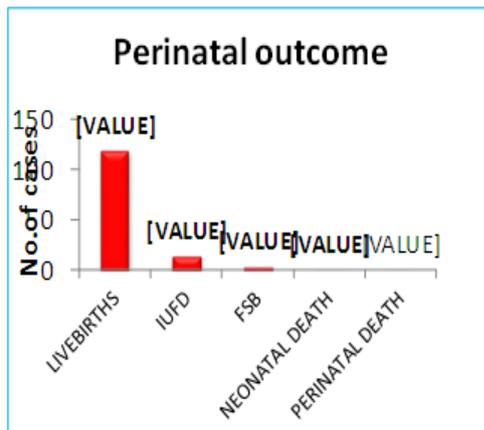
### METHOD

Total **146** women with severe preeclampsia and eclampsia after 20wks were included. Women with medical complications were excluded. Patients were managed as per existing protocol after proper history, examination and investigations. Anti-hypertensive of choice was labetalol and oral nifedipine, Mgso4 was used as anti convulsant.

### RESULT

Out of **146**cases of severe pre-eclampsia and eclampsia, majority **91(62.32%)** were between **21-25yrs** years of age and **76(52%)** were primigravida. We had **21(14.38%)** patients with h/o convulsions and **103(70.5%)** with severe pre-eclampsia of whom **3(2.9%)** had convulsions. Headache was most common complaint. Common mode of delivery was caesarean section **106(72.6%)** women, majority in view of failed induction or non-progress. Maternal complications were noted in **43(29.5%)** attributed to renal dysfunction,

postpartum haemorrhage, DIC, placental abruption, HELLP, pulmonary oedema.



## DISCUSSION

Advanced maternal age has been 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. There is also an increase of incidence in severe pre-eclampsia in unregistered women. This indicates that women who are registered have pre-eclampsia diagnosed earlier and treated.

We found that anaemia, diabetes mellitus, previous history of pre-eclampsia and multiple pregnancies were associated with pre-eclampsia. Women who have pre-eclampsia in a first pregnancy have seven times the risk of pre-eclampsia in a second pregnancy. 58% of the patients were induced and 45% of them needed caesarean section due to obstetric indication, the incidence of abruption is more in unbooked case.

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 check-ups, complicated cases of pre-eclampsia and lack of awareness regarding significance of symptoms like decreased foetal movements and late arrival at hospital, all contributing to stillbirths. In conclusion, pre-eclampsia tends to threaten maternal health and foetal viability adding to maternal and neonatal mortality and morbidity. There is a high frequency of pre-eclampsia in our setting and the consequences of pre-eclampsia for neonatal mortality and morbidity outcome are alarmingly high.

## CONCLUSION

Pre-eclampsia and eclampsia still remains a major problem in developing countries. It is one of the important causes of maternal and perinatal morbidity and mortality probably resulting from inadequate and suboptimal antenatal care and lack of education and awareness amongst people. One maternal death occurs in every 25 eclamptic women. A moderate reduction of death of mother and foetus in our institution was possible due to wider use of magnesium sulphate, timed delivery, and proper implementation of emergency obstetric care facilities to mother with eclampsia. The incidence of eclampsia can be reduced by better antenatal care, early recognition and prompt treatment of severe pre-eclampsia. Adequate assessment, investigation, monitoring and intensive care for these women in the antepartum, intrapartum and postpartum period and timely delivery improve significantly the maternal and perinatal outcome. Regular blood pressure monitoring specially in predisposed individuals is essential to detect such high risk cases early and thus prevent complications. This can be done with the help of family physicians.

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