

## Maternal And Neonatal Outcomes In Preeclampsia In Yenepoya Medical College Hospital From 2009-2013- A Retrospective Study



### GYNAECOLOGY

**KEYWORDS :** PREECLAMPSIA ,MATERNAL,FETAL,PREGNANCY.

<b>DR SAUDA</b>	POST GRADUATE IN OBSTETRICS AND GYNAECOLOGY IN YENEPOYA MEDICAL COLLEGE,MANGALORE,INDIA.
<b>DR SADIQUINNISA</b>	ASSOCIATE PROFESSOR IN OBSTETRICS AND GYNAECOLOGY IN YENEPOYA MEDICAL COLLEGE,,MANGALORE,INDIA.
<b>DR SMITHA .B. RAO</b>	ASSOCIATE PROFESSOR IN OBSTETRICS AND GYNAECOLOGY IN YENEPOYA MEDICAL COLLEGE ,MANGALORE ,INDIA.
<b>DR RAJAGOPALA</b>	PROFESSOR AND HEAD OF DEPARTMENT IN OBSTETRICS AND GYNAECOLOGY IN YENEPOYA MEDICAL COLLEGE ,MANGALORE ,INDIA.

### ABSTRACT

**OBJECTIVE: TO FIND OUT THE MATERNAL AND NEONATAL OUTCOME IN PREECLAMPSIA IN YENEPOYA MEDICAL COLLEGE HOSPITAL FROM 2009-2013 STUDYDESIGN: IT IS A RETROSPECTIVE CASE SERIES STUDY. MATERIALANDMETHODS ALL THE PATIENTS ADMITTED IN YENEPOYA MEDICAL COLLEGE HOSPITAL FROM 2009-2013 WITH THE DIAGNOSIS OF PREECLAMPSIA WERE ANALYSED FROM THE MEDICAL RECORDS SECTION . 250 CASE SHEETS WERE ANALYSED**

**RESULTS: THE PATIENTS RECORDS WERE ANALYSED SHOWED THAT MOST OF PATIENTS WERE BOOKED BUT NOT ATTENDED REGULAR ANC (80%) ,UNBOOKED (20%),ILLITERATE(6%) ,LITERATE(94%).DISTRIBUTED IN AGE GROUP OF 21-30 YRS (80%) , 30-40YRS(20%),PRIMIGRAVIDA(69.6%) ,MULTIGRAVIDA (30.4%) ,PERIOD OF GESTATION<28 WEEKS (1.6%) , 29-36 WEEKSPERIOD OF GESTATION(78.4%),>37 WEEKS PERIOD OF GESTATION(20%).**

**HEADACHE WAS THE MOST COMMON SYMPTOM (80%) .SPONTANEOUS(80%) ,PG E2(20%) . MODE OF DELIVERY WAS VAGINAL(24%) OF WHICH INSTRUMENTAL (3.2%) ,LSCS( 72%) .MATERNAL COMPLICATIONS WERE POSTPARTUM HEMORRAGHE (1.6%) ,ABRUPTIO PLACENTA (8%) ,RENAL DYSFUNCTION (17.2%) ,PULMONARY OEDEMA (0.8%) , HELLP SYNDROME (4%),DIC(0.8%),MATERNAL MORTALITY(0.4%),FETAL COMPLICATIONS WERE PRETERM (76%) BIRTH ASPHYXIA (1.6%) IUGR (4%) NICU ADMISSION (80%) ,PERINATAL MORTALITY (4%) . CONCLUSIONS: THIS STUDY IMPLIES THAT THE PATIENTS WERE LITERATE BUT DID NOT COME FOR REGULAR ANTENATAL VISITS .WE SHOULD IMPRESS UPON THE IMPORTANCE OF ANTENATAL VISITS AND MAKE THE PEOPLE AWARE OF HYPERTENSION IN PREGNANCY ESPECIALLY ABOUT PREECLAMPSIA AND MATERNAL AND FETAL COMPLICATIONS AND CAN BE PREVENTED .**

### INTRODUCTION:

Type of hypertension which is unique to pregnancy is Preeclampsia.Preeclampsia is a major cause of maternal and fetal morbidity and mortality. Hypertensive disorders are the most common medical complication occurring in 12-22% of all pregnancies<sup>1</sup> .Preeclampsia and eclampsia accounts for 24% of all maternal deaths in india..This disease is a great challenge for the obstetrician because there are no effective Interventions to treat or prevent it. Antenatal care involves a difficult balance between the risk for the women to continue pregnancy and the risk of preterm delivery. The new onset hypertension (systolic BP >140mmhg,DBP>90mm Hg and proteinuria >or = 0.3gm protein in 24hrs urine after 20 weeks of gestation in a previously normotensive women 2.Severe preeclampsia is systolic BP>or=160 mm Hg or DBP >=110mm Hg or proteinuria 5gm or> in a 24hr urine specimen , oliguria , cerebral or visual disturbances ,pulmonary edema ,impaired liver function or thrombocytopenia is present. Various complications are-preterm labour, IUGR, IUD, placental abruption, pulmonary edema, cardiac failure, Hellp syndrome(3%), DIC(3%), renal failure(4%), ARDS(3%) and cerebral hemorrhage.

### METHODS

This is a retrospective study from 2009-2013 to know about the neonatal and maternal outcome as perinatal morbidity and mortality is high in preeclampsia. The total number of cases booked and unbooked were 250 diagnosed with preeclampsia were admitted in the Department of OBG in YMCH 2009-2013 with detailed history regarding age ,parity,period of gestation,signs and symptoms,obstetric and family history was recorded from the patient or patient attenders were recorded in history sheet were analysed. After which general physical,abdominal examination and pelvic examinations were

recorded,Investigations like complete hemogram,absolute platelet count,liver function test,renal function test,coagulation profile,fundoscopy and 24 hr urine routine were recorded in all patients . Obstetric management which were carried out as existing protocol in our department i.e magnesium sulphate is the drug of choice for controlling convulsions.BP was controlled either by oral Nifedepine or methyl dopa or labetalol as per needed. Details of labour like whether it was spontaneous or induced was considered. Method of induction,mode of delivery,maternal and perinatal complications were noted.Thesedatas were compiled and analysed with proportion and percentage.

### RESULTS

The patients record were analysed showed that most of cases were booked but not attended regular ANC (80%) , unbooked (20%),illiterate(6%), literate(94%).

None of the patients were less than 20years. Age group of 21-30 (80%) ,

30- 40(20%). primigravida(69.6%) , multi para(30.4%) ,period of gestation<28 weeks pog (1.6%) 29-36 weeks pog(78.4%) , >37 weeks (20%).

Prematurity is commonly associated with preeclampsia ,majority were preterm (80%) .Headache was the most common symptom (80%) . Mode of them had Spontaneous onset of labour(80%) , induced with PG E2(20%) ,Mode of delivery was Vaginal (24%) of which Instrumental (3.2%) ,LSCS( 72%) . Maternal complications were postpartumhemorrhage (1.6%) , abruptio placenta (8%) , renal dysfunction (17.2%) ,

pulmonary oedema (0.8%), HELLP syndrome (4%), DIC(0.8%),

maternal mortality(0.4%).

Fetal complications were preterm (76%) , birth asphyxia (1.6%), IUGR (4%) , NICU admission (80%) and perinatal mortality (4%)

Table No 1 Booking And Education Status

Booking status	n(%)	Education	n(%)
Booked	200(80%)	illiterate	15(6%)
Unbooked	50(20%)	literate	235(94%)

Table No 2 Distribution of Age And Parity

Age(years)	n(%)	parity	n(%)
21-30	200(80%)	0	174(69.6%)
30-40	50(20%)	1	61(24.4%)
		2	15(6%)

Table No 3 Distribution of Gestational Weeks

Gestational weeks	n(%)
<28	4(1.6%)
29-36	196(78.4%)
>37	25 (10%)

Table no 4

Distribution of patient as per investigations

proteinuria	n(%)	Renal function tests	n(%)
+1	76(30.4%)	Blood urea > 40mg%	43(17.2%)
+2	88(35.2%)	Serum creatinine>-1mg%	43(17.2%)
+3	86(34.4%)		

Liver function test	n(%)	fundoscopy	n(%)
SGOT >100	48(4%)	Normal	231(92.4%)
SGPT>100	48(4%)	Hypertensive changes	15(6%)
ALP >400	48(4%)	papilloedema	4(1.6%)
thrombocytopenia	48(4%)		

Table no 5 Mode Of Induction

Mode of induction	n(%)
spontaneous	200(80%)
PGE2	50(20%)

Table no 6

Mode Of Delivery

Mode of delivery	n(%)
Vaginal	60(24%)
Instrumental	8(3.2%)
Lscs	180(72%)
Hysterotomy	2(0.8%)

TABLE NO 7

Maternal and fetal complications

Maternal complications	n(%)	Fetal complications	n(%)
PPH	24(9.6%)	preterm	190(76%)

A b r u p t i o n placenta	20(8%)	IUD	6(2.4%)
Renal dysfunction	43(17.2%)	IUGR	10(4%)
P u l m o n a r y oedema	2(0.8%)	NICU	200(80%)
HELLP syndrome	10(4%)	Perinatal mortality	10(4%)
Convulsion	1(0.4%)		
Maternal mortality	1(0.4%)		

**DISCUSSION:**

Preeclampsia is a leading cause of perinatal and maternal mortality throughout the world.2 India is a developing country ,preeclampsia has become a major problem as it is not diagnosed early because of poor antenatal checkup ,lack of awareness of this problem, poverty and illiteracy.

The medical record with patient diagnosed with preeclampsia analysed showed that majority of cases were booked but not attended regular ANC (80%) , unbooked (20%). Savita rani singhai et al 2009 reported that in a study done 100 preeclamptic women that majority of patients were unbooked i e 80%3. In this study majority of the patients were literate(94%) illiterate(6%). None of the patients were less than 20 years. Age group 21-30 (80%) ,30-40(20%).

A population of higher proportion of primigravida will have preeclampsia. This has been shown in many studies. In Aberdeen, the incidence in primigravida has fluctuated between 3% and 7.7% since 1950 in the same study the incidence of multipara was 0.8-2.6%.The majority of the patients in this study were Primigravida(69.6%) and multi para(30.4%) . Based on the period of gestation, majority were in the earlythird trimester , the patients period of gestation< 28 weeks Pog (1.6%) , 29-36 weeks Pog(78.4%) , >37 weeks Pog (20%).

Headache was the most common symptom (80%) .Mode of induction majority had spontaneous (80%), labour onset, induction with PG E2(20%) .

Mode of delivery were vaginal (24%) instrumental (3.2%) LSCS(72%) . Majority had undergone LSCS mainly for fetal distress, and other obstetric indication. Sibai B .M.et al1993 states that the rate of ceasarean is higher because of increased use of induction of labour.4Maternal complications are comparable with the study of Begum et al which was conducted in Bangladesh was compared to other studies reported done in developed countries where management was better and complication were less5. Maternal complications like Postpartum hemorrhage (1.6%) abruptio placenta (8%) . Studies of Hauth et al,Buchbinder et al and HNAT et al states that perinatal mortality and morbidity as well as abruptio placenta are subsequently greater in women with severe preeclampsia 5.The post partumhemorrhage and abruptio placenta were more compare to other maternal complications .Other complications were renal dysfunction (17.2%)pulmonary oedema (0.8%) help syndrome (4%) DIC(0.8%) maternal mortality (0.4%).

Fetal complications of which majority were preterm (76%) . Buchbinder found the incidence of preterm in pregnancy complicated hypertension was 6.2% in women with mild gestational hypertension , 25.8% with mild preeclampsia and 66.7% in severe preeclampsia 7. Birth asphyxia (1.6%) IUGR (4%) NICU admission (80%) . In this study perinatal mortality was 4% .Ray found that perinatal mortality and morbidity occurs in 25.4% of women with gestational hypertension ,59.7 % in preeclampsia.

**CONCLUSION:**

This study implies that the patients were literate but did not come for regular antenatal visits .we should impress on the importance of antenatal visit and make the people aware of hyper-

tension in pregnancy especially about preeclampsia and maternal and fetal complications and can be prevented if the people also become aware of it. Early diagnosis and prenatal supervision can prevent eclampsia to large extent and appropriate treatment should prevent the disease process.

## REFERENCE

1. Walker JJ. Preeclampsia Lancet. 2000;356:1260-65. | 2. Von Dödelshen P et al. Maternal and neonatal outcome among small for gestational infants. ObstetGynecol 2005;106:335-39. | 3. Singhal SR et al. Maternal and neonatal outcome in severe preeclampsia and eclampsia. JSAFOG. 2009;1(3):25-8. | 4. Sibai BM. Maternal Morbidity And Mortality in 442 Pregnancies With Hemolysis Elevated Enzymes And Low platelet Help Syndrome Am J ObstetGynaecol 1993; 169:1000-6. | 5. Begum et al. Eclampsia: Still a problem in Bangladesh. Med Gen Med. 2004;6(52). | 6. Diagnosis and management of preeclampsia and eclampsia. Clinical management guidelines for obstetrician and gynaecologists. ACOG Practice Bulletin ObstetGynaecol. 2002;99:159-67. | 7. Sibai BM. Hypertension. In: Gabbe SG, editor. Obstetrics: Normal and Problem Pregnancies Philadelphia: Churchill Livingstone; 2007. p. 863-8912. |