



AN ANALYSIS OF MATERNAL AND FETAL OUTCOME OF PREGNANCY IN PRE-ECLAMPSIA IN A TERTIARY CARE INSTITUTION.

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ABSTRACT In developing countries one of the most common causes of perinatal and maternal morbidity and mortality is hypertensive disorders in pregnancy and Pre-eclampsia (PE) is a major contributor to pregnancy induced hypertension (PIH) complex. The aim of this study is to analyse the maternal and perinatal outcome in pre-eclamptic mothers. A prospective randomized study was carried out for one year in the Department of Obstetrics and Gynaecology of Govt. Kasturba Gandhi hospital for Women and Children - a tertiary Care Teaching Medical Institution. During this period there were 11077 antenatal admissions out of which PE was noticed in 266 women with an incidence of 21% and eclampsia 3%. Preterm deliveries accounted for 26.7% of the deliveries. PE is a common medical disorder seen in pregnancy. Maternal and fetal morbidity and mortality can be reduced by early recognition and appropriate management.

KEYWORDS : Pre Eclampsia, Eclampsia, Maternal and perinatal outcome

1. INTRODUCTION

Hypertensive disorder is the one of the most common medical disorders seen during pregnancy. Pregnancy induced hypertension (PIH) is a pregnancy specific, multisystem disorder characterized by development of hypertension and proteinuria after 20weeks of gestation. The group of diseases includes preeclampsia and eclampsia, which are peculiar to pregnancy. Hypertensive disorder of pregnancy along with hemorrhage and sepsis, contribute greatly to maternal morbidity and mortality.

Preeclampsia is common in the feeder area of this facility as in other parts of the state of Tamilnadu and is a significant contributor to maternal and neonatal morbidity and mortality.

With efficient antenatal care and early treatment of pregnancy induced hypertensive disorders, the serious form i.e. eclampsia has become almost a clinical rarity in developed countries. However, in developing countries like ours it still continues to be a major obstetric problem. Most fatalities in PIH occur due to delay in diagnosis and inadequate or inappropriate management. Hence early identification of PIH, PE in particular and appropriate and timely management would lead to a reduction in maternal mortality. On this hypothesis, the present study was conducted to assess the incidence and the maternal and perinatal outcome associated with PE

2. MATERIALS AND METHODS

A prospective case control study was carried out for a period one year from January 2015 to January 2016 in the Department of Obstetrics and Gynaecology at the Institute of Social Obstetrics and Govt. Kasturba Gandhi hospital for Women and Children, Chennai.

2.1 Inclusion criteria:

1. Preeclampsia was diagnosed, when there was Hypertension (BP \geq 140/90 mmHg) with proteinuria and
2. Eclampsia was diagnosed, when there were convulsions in pregnant women during the antenatal, intrapartum or postnatal period with or without pre eclampsia.

2.2 Exclusion criteria:

1. Gestational Hypertension [Hypertension (BP \geq 140/90mmHg) without proteinuria].
2. Chronic hypertension with superimposed preeclampsia [New onset proteinuria in a hypertensive women but no proteinuria before 20 weeks gestation].
3. Chronic hypertension [BP \geq 140/90] mmHg before pregnancy or diagnosed before 20 weeks of gestation but not attributable to early onset pre eclampsia.
4. Patients with other causes of convulsions like epilepsy and cerebral malaria

In the 266 women so selected, along with a detailed history and clinical examination all relevant laboratory investigations were performed.

The selected women were assigned to either Mild PE group when the BP is between 140/90 and 160/110 with proteinuria of 1+ by dipstick or Severe PE when BP is more than 160/110 with proteinuria of 3+ by dipstick method.

Eclampsia was diagnosed when the women has convulsion with or without PE.

HELLP syndrome was diagnosed when there was Hemolysis, Elevated liver enzymes and Low Platelet Count. (Table 1)

The treatment regimen consists of anti hypertensive and magnesium sulphate as the condition demands. HELLP was treated with blood and component transfusions.

Most of the deliveries were by Cesarean Section (72.5%). Nearly 25% of women delivered via naturalis. (Table 2). There were no maternal deaths in this group.

RESULT

Total Number of Patients Selected: 266

Table: 1 Type of PE

Category	Number	%
Mild PE	204	76.7
Severe PE	31	11.7
Eclampsia	30	11.3
HELLP	1	0.3

Table: 2 Mode of delivery

Category	Number	%
Labour natural	67	25.1
LSCS	193	72.5
VBAC	3	1.2
Assisted breech	2	0.8
Outlet forceps	1	0.4

There were no maternal deaths in the 266 pre eclampsia/eclampsia analysed

Table: 3 Fetal outcome

Category	Number	%
Term	195	73.3
Preterm	71	26.7

There were no neonatal deaths in this series.

DISCUSSION:

266 consecutive women who were admitted to the Institute of Social Obstetrics and Govt. Kasturba Gandhi Hospital, Chennai were taken up for the study. Of these 266 pregnant women (PW), 139 (52.2%) were primi gravida and the remaining 127 (47.8%) were multi gravida. Most of the women (204, 76.7%) had mild pre eclampsia. 31 PW

(11.7%) were admitted with severe PE. 30 women came with eclamptic fits (11.3%) and one woman developed HELLP syndrome (0.3%).

Of these 266 PE PW, 67 (25.1%) were delivered by labour natural. There were 193 cesarean sections giving an incidence of 72.5%. 3 previous cesarean PW delivered vaginally (VBAC – 1.2%). Two were assisted breech deliveries and one PW was delivered by instrumental vaginal delivery. Though PE usually involves preterm induction, in our series, 195 deliveries occurred at term and only 71 were preterm deliveries. This resulted in 137 babies being born with a birth weight of 2.0 to 3 kg. However 55 babies had birth weight less than 2.0 kg and 74 babies were more than 3.0 kg in weight.

There were no maternal or neonatal deaths in this series.

CONCLUSION:

This study of 266 pregnant women with PE/eclampsia was conducted at the Institute of Social Obstetrics and Govt. Kasturba Gandhi Hospital, Chennai highlighted the fact that PE/eclampsia continues to be a major issue in the obstetric practice. However with prompt and appropriate treatment, there were no maternal deaths amongst these 266 women. Timely intervention also resulted in reduction of preterm births with its attendant neonatal complications. However, a larger multicentric study with more number of subjects would reflect the actual situation across the region. A constant watch for signs and symptoms of pre eclampsia and timely intervention would greatly reduce the adverse maternal and fetal outcome in this common pregnancy complication.

References:

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