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FREQUENCY OF PRIMIGRAVIDA IN PATIENTS WITH ECLAMPSIA IN A TERTIARY CARE SETTING

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Abstract:

Introduction*: Pregnancy induced hypertension (PIH) accounts for 5% of pregnancies and is a major contributor to high perinatal morbidity and mortality (1). According to the American Congress of Obstetricians and Gynecologists (ACOG), the hypertension in pregnancy is considered as sustained systolic blood pressure of greater than 140 mm Hg and diastolic greater than 90 mm Hg in a previously normotensive woman (2). The onset of signs and symptoms of pregnancy induced hypertension usually occur after 20 weeks of gestation. American Congress of Obstetricians and Gynecologists defined preeclampsia as pregnancy induced hypertension accompanied with renal involvement and proteinuria (.*

Methodology: *Setting: The Study was done at DHQ hospital Sargodha.*
Sample size: 55 case of unilateral hernia was included in the study.
Sample Selection: Consecutive non-probability sampling
Study Design: Cross-sectional descriptive study.

Results: *In this study, we analyzed all the primigravida women who experienced eclampsia were admitted to high dependency unit. In total, 9.5% of primigravida patients experienced eclampsia (n = 2,692), 6.9% of these women died (n = 186), and 15.9% of their babies died (n = 397). There was substantial variation in eclampsia across different geographical regions of Sargodha, ranging from 0.20% to 1.42%.*

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INTRODUCTION:

Pregnancy induced hypertension (PIH) accounts for 5% of pregnancies and is a major contributor to high perinatal morbidity and mortality (1). According to the American Congress of Obstetricians and Gynaecologists (ACOG), the hypertension in pregnancy is considered as sustained systolic blood pressure of greater than 140 mm Hg and diastolic greater than 90 mm Hg in a previously normotensive woman (2). The onset of signs and symptoms of pregnancy induced hypertension usually occur after 20 weeks of gestation. American Congress of Obstetricians and Gynaecologists defined preeclampsia as pregnancy induced hypertension accompanied with renal involvement and proteinuria (1,3). Eclampsia results from preeclampsia that progresses to seizures (3-5). Eclampsia define as the incidence of one or more episode of generalised tonic-clonic seizure in a previously normotensive woman suffering from severe preeclampsia provided that other neurologic conditions have been excluded (6) .

Eclampsia is a life-threatening complication of preeclampsia and affects 1 to 2% pregnancies. It usually occurs after 20 weeks of gestation and remains a major cause of death in low-income countries (6). It is characterized by life threatening symptoms like high blood pressure cardiovascular, cerebrovascular, kidney, liver involvement, disseminated intravascular coagulation (DIC) and HELLP syndrome (hemolysis, elevated liver enzymes, low platelet count) in mother and neonatal and fetal complications like preterm birth low birth weight and intrapartum death. Cerebral hemorrhage is the most common cause of death in patient with eclampsia (7).

METHODOLOGY:

Setting: Obstetrics and Gynaecology Department Dhq Hospital, Sargodha.
Duration: 6 months.
Sample Size: Total of 55 primigravida patients were included in this study.
Study Design: Cross-sectional descriptive study.
Sampling Technique: Non-probability consecutive sampling.

SAMPLE SELECTION

Inclusion criteria:

- Singleton pregnancy on ultrasound
- Women with age 18 to 35 years
- All eclamptic patients
- Gestational amenorrhea > 20weeks

Exclusion criteria:

- Convulsion due to other neurological conditions
- H/O renal disease
- H/O diabetes mellitus
- H/O essential hypertension
- H/O heart disease
- H/O chronic liver disease

The above-mentioned conditions act as confounders and this will introduce bias in the study results.

DATA COLLECTION PROCEDURE

Approval was obtained from the hospital research and ethical board before starting the study. All the primigravidas meeting the inclusion criteria was included in the study presenting through labour room of gynaecology and obstetrics unit of Sargodha teaching hospital.

Diagnosis of eclampsia in primigravida was based upon obstetrical history, presence of fits or coma, raised blood pressure and presence of proteinuria on urine complete examination. Immediate management included passing an airway, seizure control and prevention, control of blood pressure, intake-output record. Induction of labour or delivery by Caesarean section in eclamptic patients was carried out. The guardian of the patient was explained about the purpose and the benefits of the study and a written informed consent was taken. The confounding variables and bias was controlled by taking detailed past obstetrical, medical and family history.

After taking complete history, complete examination was done and routine investigation including complete blood count, platelet count, clotting profile, renal function tests, liver function tests and urine for protein was sent. Data regarding eclampsia was noted as per operational definitions by the researcher herself and recoded on especially designed proforma.

RESULTS:

In this study, we analysed all the primigravida women who experienced eclampsia were admitted to high dependency unit. In total, 9.5% of primigravida patients experienced eclampsia (n = 2,692), 6.9% of these women died (n = 186), and 15.9% of their babies died (n = 397). There was substantial variation in eclampsia across different geographical regions of Sargodha, ranging from 0.20% to 1.42%.
The odds of developing eclampsia were 2.68 times higher in women with primigravida comparing to the women with multigravida (AOR: 2.68 95% CI: 1.38, 5.22). Women who had multiple pregnancies (twin) had higher risk of eclampsia comparing to women with singleton pregnancy (AOR: 8.22 95% CI: 2.97, 22.78). The multivariate analysis also revealed that

receiving nutritional counseling during ANC contact was found to protect the women from eclampsia. The risk of developing eclampsia was lower among women who had received nutritional counseling (AOR: 0.22, 95% CI: 0.10, 0.48). Women who reported to do smoking during the pregnancy had also an increased risk of eclampsia as compared to those women who did not smoke (AOR = 3.97, 95% CI = 1.8, 8.75).

DISCUSSION:

Primigravida is defined as women who conceives for the first time and are more crucial group regarding assistance in terms of antenatal, natal and post natal care. About 7% of pregnant female are suffering from preeclampsia(8). Yeshambel et. al depicted that the incidence of eclampsia was 56.52% in primigravida and the episodes of antepartum convulsion are more dangerous than those beginning after delivery(9). K Rani et. al. has showed in his study that frequency of eclampsia in primigravida was 62.26% and it was more common in age group of 21 to 25 year (43.39%)(10). SR Qureshi et. al. found out in another study that the frequency of eclampsia was 58.8%(11). Other risk factors for developing pre eclampsia and eclampsia are previous history of eclampsia raised body mass index (BMI), raised blood pressure on booking visit and age more than 40 years(12).

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