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A CLINICAL STUDY ON ECLAMPSIA PATIENTS IN A TERTIARY CARE CENTRE

Gynecology

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ABSTRACT

Eclampsia is a major health problem in India. It is basically a preventable disorder if pregnant females receive regular antenatal care and proper health education. The incidence of eclampsia can be markedly reduced by giving mass awareness highlighting the importance of antenatal care, ensuring early detection of symptoms of preeclampsia and providing adequate treatment once diagnosed. A retrospective clinical study was conducted on the eclampsia patients in the Obstetrics & Gynecology department of Kalpana Chawla govt. medical college ,Karnal. Factors like social and demographic status, antenatal care and gestational age were studied with types of eclampsia and their relationship.

KEYWORDS

Eclampsia, antenatal care, parity, gestational age

SUMMARY

Eclampsia is one of the most common disorder among pregnant women.Hypertension maybe pre-existent, may be pregnancy induced or both types may co-exist and their influence on the outcome of the pregnancy depends on the type of disorder concerned. Further, severe maternal and foetal consequences may be expected in the presence of proteinuria. Lack of antenatal care, poverty, illiteracy are the main factors which needs to be addressed to prevent this serious complication of pregnancy. Eclampsia basically is a preventable disease if the pregnant women receives regular antenatal care and proper health education. Hence, early antenatal booking, regular and careful follow up and effort to detect early complications are most essential.

INTRODUCTION.

Eclampsia is one of the most common disorder among pregnant women.Hypertension maybe pre-existent, may be pregnancy induced or both types may co-exist and their influence on the outcome of the pregnancy depends on the type of disorder concerned. The etiology and the risk factors of pregnancy-induced hypertension are still unknown. Nulliparity and previous history of preeclampsia in multiparas have definite association with this disorder. There are many factors which are believed to be related to preeclampsia: maternal age, race, smoking, familial predisposition, socioeconomic level, diet, season climate, geographical area etc. Eclampsia is an important cause of maternal mortality, resulting in around 50,000 deaths worldwide [1]. Incidence of maternal mortality due to eclampsia has shown a downward trend in the past three decades from 5 to 10 percent to less than 3 percent of cases worldwide[2]. In developed countries, incidence of eclampsia is as low as 1 in 2000 deliveries[3], but in developing countries, wide variations in the incidence are found ranging from, 1 in 100 to 1 in 1700 [4]. The incidence of eclampsia in India is 0.90 to 2% in all pregnancies.

Eclampsia may be of 3 types: antepartum, intrapartum and postpartum. The clinical course of antepartum eclampsia is more fulminant than postpartum eclampsia[5]. Primigravida have a higher risk of developing eclampsia [6]. Eclampsia is most commonly found in the last trimester of pregnancy and becomes increasingly more frequent near term. Factors like lack of health awareness, poverty, poor linkage of community with comprehensive health facilities ,Illiteracy, and superstitious beliefs contribute to eclampsia.

MATERIALS AND METHODS

A retrospective clinical study was carried out in the obstetrics & gynecology department of Kalpana Chawla govt. medical college ,Karnal from **December 2016 to September 2018**.. Around 240 cases of eclampsia diagnosed during this period were included in the study. Data were collected from patients and attendants of the patient (if patient is unconscious/semiconscious) with the help of preset questionnaires. All these data were studied using software packages Excel and GraphPad. .

IMPORTANT DEFINITIONS:

1. Eclampsia is defined as occurrence of convulsions in a patient with pre-eclampsia with no coexisting neurological disease. The diagnosis of pre-eclampsia is made when a pregnant female presents with hypertension (BP _140/90 mm of Hg) after 20 wks of gestation and proteinurea (300 mg/24 hr or 1+dipstick)

2. Antenatal care is categorised in following types:

a. Quality antenatal care – At least 4 or more check-ups of a pregnant female by an authorized service provider alongwith imparting knowledge regarding birth planning and eclampsia.

b. Regular antenatal care – At least 4 or more check-ups by an authorized service provider.

c. Irregular antenatal care - Less than 4 antenatal check-ups of a pregnant female by an authorized service provider.

d. No antenatal care - Total lack of antenatal check-up or irregular check-up of a pregnant female by an unauthorized person.

Authorized service provider was defined as a person who has necessary training and skills to perform proper antenatal check-up and impart awareness regarding disease. ANMs, GNMs and Doctors are considered to be authorized service providers. Socio – economic status –SES[7] of the patients was determined with the help of Kuppuswamy's Socio-economic scale (2012). Kuppuswamy's scale considers monthly salary, educational status and occupation for calculation of socio-economic status.

Observations And Discussion

In the present study, most (61 percent) of the patients were found to be between 20 – 25 years of age.(Table-1). This observation is similar to many other studies, where it was found that eclampsia is prevalent mostly below the age of 25 yrs. Rowshan et al examined 416 patients of eclampsia and 77 percent were found between age group of 20 – 25 yrs. Similarly, Parmeet Kaur[8] et al in her study also concluded the same.

Table 1. Age Distribution of Patients

Age (yrs)	No of patient	Percentage
<20	76	31.66
20-25	144	61
>25	20	8.33

Gravidity also has a significant correlation with eclampsia . Primigravida are more prone to develop eclampsia than multiparas. In this study, it was observed that most of the eclamptic patients were primigravida (74.58 %). (Table-2) This result is similar to other studies like Shiraz's[9] et al,. In the study, it was found that majority of the patients had history of irregular antenatal care(53.33 percent). Only 5% of the patients got quality antenatal care. (Table-3) This result is comparable to various other studies. Similarly Jain et al and Swan et al concluded that lack of antenatal care is a high risk factor for eclampsia[10]. But on the other hand in 1994, Douglas and Redman found that eclampsia is prevalent even in patients with regular antenatal care (70 percent) and also within one week of patient's last visit to a doctor or midwife (85percent)[11]. In India, only 38 percent of woman aged 15 – 50 yrs received regular antenatal care during pregnancy by any provider[12]

Table 2. Gravida and Parity Distribution

Gravida / Parity	No. of patients	Percentage
Primigravida	179	74.58
Multigravida	61	25.58

Table 3. Antenatal Care

category	No. of patients	percentage
No antenatal care	68	28.33
Irregular antenatal care	128	53.33
Regular antenatal care	32	13.33
Quality antenatal care	12	5

In the current study, majority of the patients were found to be belonging to upper lower class (41.8 percent) and lower class (55.4 percent). (Table-4) Poverty, illiteracy and lack of awareness regarding antenatal care are some of the important factors which prevent women from seeking antenatal advice during pregnancy. Similar findings were reported among the woman of developing countries by Dlamini where poverty was found to be a significant risk factor for developing pre-eclampsia.[13] On the contrary, Gudmundsson found that the risk and severity of pre-eclampsia is not associated with poverty but his study was done on the women of developed countries[14]. The literacy of mother also plays an important role in developing eclampsia. The majority of patients who developed eclampsia were found to be illiterate

Table 4. Socioeconomic Status

category	No. of patients	percentage
Upper class	0	0
Upper middle class	0	0
Lower middle class	8	2.8
Upper lower class	100	41.8
Lower class	132	55.4

In this study majority of the patients 128 (53.33percent) were found to have gestational age above 37weeks and 108 (44.7%) patients presented with gestational age of< 37 weeks. (Table-5) Only four patients were found to be having a gestational age of less than 28 weeks.

Table 5 Gestational age

Gestational period (in weeks)	No. of patients	Percentage
<28 wks	4	2
<37 wks	108	44.7
>37 wks	128	53.3

93 percent of the eclamptic patients were found to be hindus in this study.

Table 6 (Religion)

Religion	No. of patients	Percentage
hindu	224	93.3
muslim	16	6.7

It was further observed that, around 74.16 percent patients developed antepartum, 17.5 percent intrapartum and 8.33 percent postpartum eclampsia. (Table-7) In different studies, antepartum eclampsia is found to be the most common variety and the incidence was found ranging from 65-80%, though the incidence of postpartum and intrapartum eclampsia is showing an upward trend according to the latest studies.[15]

Table 7 Types of Eclampsia

Types	No. of patients	Percentage
Antepartum	178	74.16
Intrapartum	42	17.5
Postpartum	20	8.3

CONCLUSION

Lack of antenatal care, poverty, illiteracy are the main factors which needs to be addressed to prevent this serious complication of pregnancy. Eclampsia basically is a preventable disease if the pregnant women receives regular antenatal care and proper health education. Hence, early antenatal booking, regular and careful follow up and effort to detect early complications are most essential. There is need to increase awareness among health care providers on the need for early referral of women with previous history of preeclampsia, multiple gestation, diabetes and obesity as these are the high risk groups for this disease..

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