

Incidence and Fetomaternal Outcome of Eclampsia in a Tertiary Medical College Hospital in Bangladesh

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Abstract

Background: In day to day obstetric practice, the incidence of eclampsia and its complication is high. It is one of the leading causes of maternal mortality in Bangladesh accounting about 20

Index terms— eclampsia, perinatal death, preterm delivery.

1 Incidence and Fetomaternal Outcome of Eclampsia in a Tertiary Medical College Hospital in Bangladesh

Kamrun Nessa¹, Sanjida Khan², Selina Begum³, Ferdowsi Sultana⁴ & Tania Akbar⁵ Abstract-Background: In day to day obstetric practice, the incidence of eclampsia and its complication is high. It is one of the leading causes of maternal mortality in Bangladesh accounting about 20%. This is also associated with poor perinatal outcome.

Objectives: To determine the incidence of eclampsia and associated feto-maternal outcome. Keywords: eclampsia, perinatal death, preterm delivery.

2 Materials and Methods

3 I. Introduction

Now a days Eclampsia is one of the leading cause of maternal and perinatal mortality as well as morbidity throughout the world 1,2 . Pre-eclampsia when complicated with generalized tonic-clonic convulsions and/or coma is called eclampsia 3 . Since eclampsia is a severe form of pre-eclampsia, early detection of risk factors, symptoms and signs by good antenatal checkup and initiation therapy will prevent occurrence of eclampsia. Unfortunately, eclampsia still complicates much larger number of pregnancies in the world. It is estimated that every year eclampsia is associated with about 50, 000 maternal death worldwide, most of which occur in developing countries 4 . The incidence of eclampsia has been reduced to. 2%-5 % of all deliveries in developed countries. But in Bangladesh about 5% of the total pregnancies develop eclampsia 5 . There are approximately 3.6 million births per year in Bangladesh and over 10,000 women develop eclampsia each year 6 . It is one of the common cause of maternal mortality and responsible for 20% of maternal death 7 . Incidence of eclampsia varies inversely with the quality of antenatal care.

4 II. Methodology

This retrospective study was conducted on the diagnosed patients of eclampsia admitted in Enam medical college hospital, Savar, Dhaka, Bangladesh, during the period of January 2015 to December 2016. During these months total 2295 patients were admitted in obstetric ward and among them 35 patients were eclampsia. Age of patients, parity, type of eclampsia, gestational age, mode of delivery, maternal and fetal outcome were noted from medical records of patients. Patients with diagnosis of convulsion and coma of other causes were excluded.

All patients of eclampsia were followed up thoroughly from admission to discharge. Study was ethically approved by Ethical Review committee of Enam Medical College and Hospital. All data were entered in SPSS16

and also analyzed through it. 35 cases of eclampsia were recorded out of 2295 obstetric patients admitted during the study period which gives an incidence of 1.52%. 19(54.28%) cases were in between age of 21 to 30 years, while 12(34.28%) were less than 21 years and 4(11.42%) were more than 30 years as illustrated in Table 1. Majority (60%) were nulliparous, while 40% were multiparous which is shown in Fig 1. Table ?? : Distribution of study subjects according to fetal outcome

5 IV. Discussion

Antepartum eclampsia accounted for 42.85% in this study is higher than 36.8% reported in Lagos but lower than 61.6%,84% and 85% reported in Ethiopia, Enugu and Ibadan respectively 11,[13][14][15] . In our study post partum eclampsia was more common, about 57.14% which correlate with another study on similar topic 16 .

The majority of antepartum cases in our study had eclampsia before term and caesarean section was a leading mode of delivery, which is comparable to other studies 17,18 . In this study patients underwent caesarean section due to an unfavourable cervix remote from delivery, but the decision to perform a caesarean delivery was based on multiple factors which included gestational age, foetal condition, stage of labour and Bishop scoring of cervix 19 .

Maternal mortality rate of 8.57% reported in this study was higher than 7.9%, 8% and 9% reported respectively from Tanzania, India and Ibadan, Nigeria 14,20, ??1 .

Hypertensive disorders are a common cause of preterm labour, perinatal death and intrauterine growth restriction 22 . The 20% perinatal mortality rate in this study is higher than 10% reported from Ibadan, but lower than 29% and 40.9% reported from Ethiopia and Kaduna, Nigeria respektively 23,14,24 . A significant percentage (37.14%) of low birth weight neonates might have been the result of the high number of preterm deliveries among the eclamptic patients. Similar findings have been reported in the literature that links the incidence of low birth weight infants with preterm deliveries in eclamptic patients 17,25, ??6 .

6 V. Conclusion

The incidence of eclampsia remains high in our hospital. Fetomaternal morbidity and mortality are in alarming rate. Hence, eclampsia remains a continuing problem in developing countries and leading cause of fetal-maternal mortality and morbidity. Careful antenatal supervision, early detection and management of high risk cases can reduce this dreadful disease. After meticulous treatment 18(51.42%) patients improved in eclampsia ward, while 14 (40%) patients needed ICU support and 3(8.57%) died. Among the babies only 6(17.14%) were term and healthy. Most (37.14%) of the babies were preterm low birth weight, 9 (25.71%) were IUGR and 7 (20%) were perinatal death which is shown in Fig 5 ??nd Table 2.

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The incidence of eclampsia in our hospital was 1.52% of total obstetric admission.. Onuh in Benin Nigeria reported 1.32% and Okafor recently reported an incidence of 0.82% in Abuja, Nigeria 8 . A high incidence of eclampsia is common in developing countries where most patients have no antenatal care which would allow for early recognition and treatment of eclampsia. Majority of the patients were between age 21 to 30 years in this study which is contrary to the report in the developed world where severe preeclampsia with severe features and eclampsia is significantly commoner among women older than 40 years 9 . Nulliparity strongly associated with eclampsia in this study is supported by previous reports in other centres [10][11][12] ^{1 2}



Figure 1: Fig. 1 :



Figure 2: Fig. 2 :Fig. 3 :Fig. 4 :Fig. 5 :



Figure 3: E

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Age	Frequency	Percentage
< 21 Years	12	34.28
21 to 30 years	19	54.28
> 30 years	4	11.42

Figure 4: Table 1 :

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Figure 5:

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