

ECLAMPSIA IN IRRUA SPECIALIST TEACHING HOSPITAL: A FIVE-YEAR REVIEW

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ABSTRACT

Objective: The contribution of Eclampsia to maternal mortality in Nigeria is well documented. In Irrua it accounts for over 25% of maternal deaths. Addressing Eclampsia is therefore a priority programme of the Irrua Safe motherhood Initiative.

Aim: The aim of this study is to determine the incidence of eclampsia, its clinical correlates and outcome. Finally strategies will formulate programme implementation.

Materials and Methods: This is a retrospective study of cases of eclampsia in Irrua Specialist Teaching Hospital, Edo state; over a five-year period. Information was retrieved using a structured proforma. Statistical analysis was done using the excel statistical package and the Epi info 2002 statistical software.

Results: Seventy eight (78) were admitted in the 5 year study. This accounted for 2.52% of total labour ward admission. However only 74 case notes were available for analysis. 70/74 of the patients were unbooked emergencies. Among the unbooked patients. 38/70 (54.29%) of the unbooked had not received any antenatal care whatsoever. The incidence was disproportionately higher in younger women and teenagers as well as in primigravida. 55/74 (74.32%) had preceding headache while 21.62% had a prior history of blurred vision, 14.86% had epigastric pain. 16.22% had restlessness while 10.81% had nausea and vomiting each. The perinatal mortality rate was 28.38% while the maternal mortality ratio was 22.97%. Maternal mortality was associated with poor urinary output (0.0003), history of native medication (0.0199), number of fits (0.00209). Platelet count below 50,000/ml, highest systolic blood pressure above 200mmhg (0.000018) and pulmonary oedema(0.000558).

Conclusion: Addressing Eclampsia in Irrua will include community campaigns, capacity building, retraining of staffs within the hospital and improved facilities for the management of cases.

KeyWords: Eclampsia, Maternal mortality, safe motherhood, perinatal mortality, unbooked women
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INTRODUCTION

The high maternal mortality rate in Nigeria continues to be a major reproductive health problem¹⁻⁴. Amongst the commonly reported complications causing death, Eclampsia has its peculiarities. Although it is a severe life threatening disease of poorly defined aetiology, it is preventable^{5,6}. Prevention is usually by antenatal screening, early detection and management of its precursors i.e. pregnancy induced hypertension, pre-eclampsia and imminent eclampsia⁶⁻⁸. The incidence of Eclampsia is therefore high where there is poor health seeking behaviour and patronage of facilities with inadequate antenatal and obstetric care⁸.

In a recent review of antenatal records at the Irrua Specialist Teaching Hospital, Eclampsia accounted for 20% of maternal deaths⁹. Addressing Eclampsia

has therefore become a major focus of efforts to reduce maternal mortality in Irrua.

The aim of this study is to determine the incidence of Eclampsia in the Irrua Specialist Teaching Hospital. It will also determine the clinical characteristics, and the health seeking behaviour of patients presenting with Eclampsia. The obstetric outcome is determined as well and finally, strategies are formulated for programme implementation.

MATERIALS AND METHOD

This was a review of patients diagnosed as having Eclampsia in Irrua Specialist Teaching Hospital between 1st August 1999 and 31st July 2004. A structured pro-forma was used to collect information from case files, labor ward records, theatre records as well as records from the lying in ward. Information collected included, age of patient, parity, occupation, antenatal care facility, referral facility, treatment received before presentation, mode of delivery, preceding symptoms, fetal/neonatal and maternal

outcome. Other data retrieved included complications, results of investigations, number of fits as well as levels of Blood pressure and degree of proteinuria. Analysis was done with the excel computer software and the epi-info statistical package. Statistical significance was set at value of $P < 0.05$.

RESULTS

In the period under study (1st August 1999 to 31st July 2004). 78 patients diagnosed as having eclampsia were admitted into the labor ward of Irrua Specialist Teaching Hospital. During this period, there were a total of 3095 labor ward admissions. The incidence of Eclampsia in this study was therefore (78/3095) representing 2.52% of total labour ward admissions. However sufficient information for data analysis was available in 74 cases due to missing case files and torn sheets.

Seventy out of seventy four 70/74 (94.59%) of the patients were unbooked while 5.41% were booked in Irrua Specialist Teaching Hospital. Thirty eight out of seventy patients (54.29%) of the unbooked patients had received no antenatal care whatsoever while the rest 32/70 (45.71%) of the unbooked patients had some antenatal care in other facilities (see Table 2). Table 2 shows the occupation of the patients as documented. Twenty out of the seventy four patients 25/74 (33.78%) were unemployed. Fashion design, petty trading and hairdressing were the predominant occupation.

Table 2 also shows the facility from which patients came to the hospital. twenty patients 27.03%, 19 (25.68%) and 16 (21.62%) patients were from Home, private hospitals and private maternity/clinic respectively. Analysis of treatment received before presentation is shows that only 9 (12.16%) had some form of relevant treatment.

The Age distribution (see table 1) shows the age range was 16 to 40 years, the median age was 27 years and the mean was 26.51 years with a standard deviation of 6.81. There is a disproportionately higher incidence of Eclampsia amongst the teenagers ($P = 0.0000$) and the incidence of the disease fell with increasing age until 35 years when the incidence started to increase. However, this latter increase did not reach statistical significances ($P = 0.1516$).

Table 1 also highlights the Parity distribution of the patients. The parity range was 0-10 with a median of 1. The mean was 1.57 and the standard deviation 1.8. The incidence of Eclampsia was disproportionately higher in primigravida and grandmultiparity and the trend is illustrated in chart 2.

Thirty one cases (41.8%) had Eclampsia antenatally, 23 (31.08%) were intrapartum eclampsia accounted, while 20/74 (27.03%) were post partum.

The caesarean section rate was 68.52%.

Table 3 shows the preceding symptoms with Headache, blurred vision and restlessness were the commonest symptoms. The complications are shown on Table 4. The perinatal mortality was 21 (28.38%) and maternal mortality rate was 17 (22.97%). Maternal death was associated with poor urinary output, history of native medication, increasing number of fits, platelet count below 50,000/ml systolic B.P = 200, and pulmonary oedema. (See table 3).

Table 1: Age and Parity Distribution.

Age	No Eclamptic	Total No	%
<19	13	48	27.08
20-24	22	501	4.39
25-29	19	1147	1.66
30-34	6	950	0.63
35-39	12	420	2.86
>40	2	29	6.90
Total	74	3095	

Parity	No Eclamptic	Total No	%
0	32	934	3.426
1	14	600	2.333
2	8	611	1.309
3	5	350	1.429
4	4	294	1.361
>5	11	306	3.595
Total	74	3095	

Table 2: Antenatal Clinic Attendance, Occupation of Patients and Referral Facility.

Antenatal Clinic Attendance

Health Facility	No	%
Nil	38	54.29
Private hosp	15	21.43
Maternity	8	11.43
T.B.A.	4	5.71
Primary health clinic	3	4.29
General Hospital	2	2.86
Church	0	0.00
Total	70	100.00

Occupation of patients.

Occupation	No	%
Nil	25	33.78
Fashion design	13	17.57
Trader	11	14.86
Hair dresser	11	14.86
Farmer	5	6.76
Students	4	5.41
Unspecified	5	6.76
Total	74	100.00

Referral Facility

Facility	No	%
Home	20	27.03
Private Hosp	19	25.68
Maternity	16	21.62
TBA	6	8.11
Primary health centre	6	8.11
Mission Hospital	4	5.41
General Hospital	2	2.70
Church	1	1.35
Total	74	100.00

Table 3: Preceding Symptoms/Factors Associated With Maternal Mortality.

Preceding Symptoms	No	%
Headache	55	74.32
Blurred vision	16	21.62
Restlessness	12	16.22
Epigastric Pain	11	14.86
Nausea	8	10.81
Vomiting	8	10.81

Factors associated with Maternal Mortality.

Factors	Total No	Deaths	P-value
Oliguria	16	9	0.0003
Native Medicine	10	5	0.0199
Multiple Fits	40	14	0.00209
Platelet <50 000/ml	4	4	0.00018
Systolic BP >200mmhg	13	13	0.00399
Pulmonary Oedema	11	11	0.00055

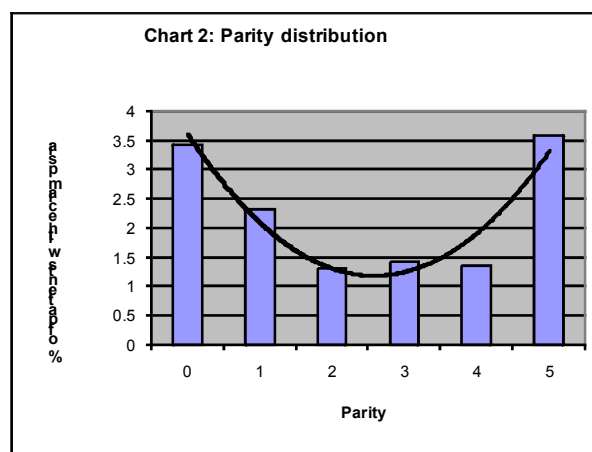
Table 4: Complications/ Number of Fits and Associated Maternal Mortality.

Complications	No	%
Febrile Morbidity	42	56.76
Multiple fits	40	54.05
Anaemia	14	18.92
Aspiration Pneumonitis	12	16.22
Pulmonary oedema	11	14.86
Postpartum Haemorrhage	10	13.51
Renal failure	7	9.46
DIC/HELLP Syndrome	7	9.46
Abruptio Placenta	5	6.76
Wound Sepsis	4	5.41
Cardiac Failure	3	4.05
Cerebro Vascular Accident	3	4.05
Perinatal mortality	21	28.38
Maternal Mortality	17	22.97

Number of Fits and associated Maternal Mortality.

No of Fits	No of Patients	No of deaths	%
1	34	3	8.82
2	14	3	21.42
3	11	4	36.36
4	9	4	44.44
>5	6	3	50.00
Total	74	17	

Chi² for trend=9.468, p-value=0.00209



DISCUSSION

The incidence of eclampsia and the resultant mortality is high in Irrua Specialist Teaching Hospital. This is however similar to the incidence in similar facilities in the same sociocultural setting in Nigeria and other developing countries,¹⁰⁻¹³.

The incidence is however much higher than in developed countries.^{14,15} It remains a disease of the young primigravida with poor health seeking behavior¹². In this study, 27.08% of teenagers who presented in our labour ward had eclampsia and 54.29% of the patients had no antenatal care whatsoever. Moreover majority of the patients had no jobs or were in low-income earners. Eclampsia in our environment is still a disease of the socially disadvantaged,¹⁶.

There were preceding symptoms in majority of the patients. These lasted for a few hours to over a week, and yet these patients still fitted before arriving in our facility. This indicates that there is poor knowledge about the disease leading to late presentation and high complication rates.. There is need to enlighten community about Eclampsia, with emphasis on preceding symptoms and high complication and mortality rate. The referral facilities also did little in terms of treatment before the patients were referred as only 9 had some relevant treatment. This suggests the need to retrain midwife and General practitioners on the emergency care before referral.

Addressing Eclampsia in Irrua will include community campaigns¹⁸. This will highlight the need for antenatal clinic attendance for all pregnant women. Emphases will be placed on the vulnerable group, prevention strategies, preceding symptoms and the need for early presentation in hospital. The need for a skilled attendant at delivery and preparation for referral in case of worsening conditions will also be highlighted.

There is also need to build the capacity of staff of private clinics, hospital and maternities to recognize the precursors of Eclampsia, and also to know the immediate treatment to give to eclamptics before referral. This will also help in building relationships between these private facilities and our institutions. Such relationship, which is presently non-existent, will go a long way in building trust and eventually reflecting in improved patient care¹⁹.

Our institution will need to improve its facilities to be able to cater for the complications patients present with and also to manage the severely ill patient.

In conclusion, Eclampsia is a major reproductive health concern in Irrua. The incidence and associated mortality is high. It is currently being addressed by the Irrua Initiative through community campaigns, capacity enhancements, building relationship between various health facilities and improved provision of facilities.

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