

Incidence of “Near- Miss” Maternal Mortality in the Department of Obstetrics & Gynaecology Sh. Zayed Medical College, R Y Khan

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ABSTRACT

Objective: To determine the frequency of near-miss maternal mortality and nature of near-miss events.

Design: An observational study done prospectively from 1st Jan to 30th June.

Patients and Methods: All women who had narrowly avoided maternal death with diagnosis of haemorrhage, obstructed labour, ectopic pregnancy, severe pre-eclampsia/eclampsia, and septic abortion.

Common guidelines were used for the management of women with these conditions. Outcome data was collected prospectively using structured Proforma.

Results: In this study total no of deliveries were 3232. Out of which near-miss events were 154 which makes 4.76% of total, 8 mothers died with maternal mortality rate of 247/100,000.

Patients with haemorrhage were 56(17.4%) and obstructed labour were 28(8.6%) Ruptured ectopic pregnancies were 28(8.6%) severe pre-eclampsia/eclampsia were 24(7.42%) & patients with septic abortion were 18(5.56%).

Conclusion: Identification of near-miss maternal mortality events and their management is essential in reducing the maternal mortality rate.

Key words: Near-Miss maternal mortality, maternal mortality rate.

INTRODUCTION

The maternal mortality ratio is considered one of the best indicators of women's health and of the quality and accessibility to health services.

According to Pakistan demographic and health survey 2006-07 maternal mortality ratio is 276/100,000 live births and varies among rural and urban population being highest in the rural areas¹.

For many years, evaluation of maternal health care services aimed at improving the quality of obstetric care has traditionally relied on enquiries into maternal death. More recently, review of cases at the very severe end of the maternal morbidity spectrum, described as “Near-Miss has been found to be a useful complement to investigation of maternal mortality².

For the purpose of this study “Near-Miss” maternal mortality is defined as a disease of pregnancy that would have resulted in a maternal death within 24 hours, had the action not been taken³. OR a near-miss describes a patient with an acute organ system dysfunction which if not treated appropriately could result in death⁴.

In order to provide an insight into the quality obstetric care in our department we have done a prospective study to determine the frequency of near miss and the nature of near-miss events.

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The study is expected to serve as a complimentary method for auditing the quality of maternal health care in the institution².

METHODS

This study was conducted in obstetric unit of Sheikh Zayed Medical College/Hospital Rahim Yar Khan between Jan to June 2007. It is a Government based tertiary care institute and serves as the major referral centre for other public and private hospitals within Rahim Yar Khan District. Unit provides emergency Obstetric and Gynaecological care 24 hours a day.

Selection criteria were the women who had narrowly avoided maternal death with the diagnosis of haemorrhage, obstructed labour, ruptured ectopic pregnancy, severe pre-eclampsia/eclampsia, and septic abortion.

Cases were indentified by Registrar on duty and managed according to the common guidelines and were followed up till discharge or death. e.g. women with severe pre-eclampsia/ eclampsia were evaluated and managed side by side, emergency measures taken followed by anticonvulsant (MgSo₄) antihypertensive and plan for delivery⁵.

RESULTS

Between Jan to June 2007 total no. of deliveries in our department were 3232, out of which 154 were near-miss events (4.76%). 8 mothers died with the maternal mortality rate of 247/100,000.

The nature of near-miss events are mentioned in table 2. Out of 154 near-miss events 56 patients were having haemorrhage (17.3/1000 births). 36 patients with antepartum and 20 patients with post-partum haemorrhage. 8 patients with P.P.H. were managed with obstetrical hysterectomy and one patient expired. 28 patients, with obstructed labour presented (8.6/1000 births) and managed. Four patients had Intrauterine dead fetuses and remaining with alive fetuses who were delivered by emergency C Section. All of them survived without complication.

Twenty eight patients, had ruptured ectopic pregnancy (8.6 per/1000 births) with emergency laparotomies, 24 patients presented with severe pre-eclampsia/ eclampsia (7.42/1000 births). Two patients expired at arrival due to severe and uncontrolled fits and DIC. Four patients were shifted to ICU out of which two patients died with severe pulmonary oedema and organ failure. 18 patients presented with septic abortion (5.56/1000), 1 patient expired due to severe septicemia and 2 patients were shifted to ICU. During this period 6 patients were admitted to ICU (Table 3). Two patients, with septic induced abortion, recovered. Two eclamptic patients with ventilation problems after caesarean section also recovered. Two patients with pulmonary oedema and organ failure couldn't survive.

Table 1

Total no. of deliveries were	3232
Near-Miss' events	154 (4.76%)
Mothers died	8
MMR	247/100,000

Table 2

Total no of deliveries	3232	Incidence/ 1000 births
Haemorrhage	56	17.3
Obstructed Labour	28	8.6
Ectopic Pregnancy	28	8.6
Severe Preeclampsia/ eclampsia	24	7.42
Septic Induced abortion	18	5.56

Table 3

Total no of Patients admitted in ICU	06	0.18%
Septic Induced abortion	02	33%
Eclampsia with ventilation problem	02	33%
Eclampsia with pulmonary oedema and organ failure	02	33%

DISCUSSION

Maternal mortality is a major indicator used to monitor maternal health. For every woman who dies, many suffer severe life threatening complications⁵. Once severe maternal morbidity precedes maternal death, the systematic identification and the study of near-miss cases may provide further understanding of determinants of maternal mortality⁷.

In our study total numbers of deliveries were 3232 in 6months as compared to 2929 deliveries in one year in Brazil [7]. Near Miss event were 102 in that study as compared to 154 in our study. Referral to ICU was 6 patients in on study as compared to 4 patients in this study. Results are comparable. In the study carried out by T.F Baskett. Maternal Mortality rate was 2.6/100,000 where as in our study it was 247/100,000 that showed suboptimal level of maternity care.

In summary our review shows that besides 8women who died due to pregnancy related complications, there were 154 additional women. Who received critical care during the sample period supporting the view that near miss appraisal provides a larger sample to assess the threat to maternal life. It is apparent from the review that tertiary institute could also benefit from evaluation of their quality of obstetrics care by including near miss investigations in their maternal death enquiries².

CONCLUSION

In the study we have tried to present an initial framework for the identification of near-miss mortality as well as their incidence that will minimize the loss of information.

The results can serve as important model for other researchers, state health agencies and regionalized perinatal systems that are engaged in morbidity and mortality surveillance.

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