



MATERNAL MORTALITY IN A TERTIARY CARE HOSPITAL -A ONE YEAR(STUDY) REVIEW

Dr. T. Kumuda

MS, Assistant Professor, Dept of Obstetrics and Gynaecology, Kurnool Medical College, Kurnool.

Dr. B. Indira*

MD,DGO Professor, Dept of Obstetrics and Gynaecology, Kurnool Medical College, Kurnool. *Corresponding Author

ABSTRACT **Objectives:** To study the maternal deaths and to assess the epidemiological and aetiological factors contributing to them. **Method:** This was a one year retrospective study carried out in the department of obstetrics and gynaecology, Kurnool Medical College, Government General hospital, Kurnool over a period of one year from January 2016 to December 2016. **Results:** A total of 54 maternal deaths occurred. Most affected age group was 18-20 years. Maternal deaths were more in Primiparous women and in the women hailing from rural areas. Deaths reported more in Preterm pregnancies. Most of them were illiterates and unbooked cases. Direct causes accounted for 65% of maternal deaths, whereas 35% of maternal deaths were due to indirect causes. **CONCLUSION:** Most of the maternal deaths are preventable. Regular antenatal checkups, early referral, skilled obstetric care can prevent most of the maternal deaths.

KEYWORDS : Maternal mortality, maternal mortality ratio, Eclampsia, Direct cause, Indirect cause.

INTRODUCTION:

Maternal mortality is an avoidable tragedy. It is taken an indicator of societal responsibility in improving the care given to pregnant mothers.

According to ICD (International Classification Of Diseases) Maternal death is defined as "death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes." The 9th ICD Revision further divided Maternal deaths into Direct and Indirect maternal deaths, Fortuitous or coincidental, Late and pregnancy related deaths. Maternal mortality is unacceptably high in developing countries when compared to developed countries. These figures depend not only on the development status of the country, available medical infrastructure but even on the basis of certain legislations and accepted social and cultural customs.

The tragedy is that these deaths are largely preventable. The progress in maternal death has been uneven, inequitable and unsatisfactory. The risk of a woman dying as a result of pregnancy and childbirth during her lifetime is about 1 in 6 in Afghanistan compared with 1 in 30,000 in Northern Europe. Every day approximately 830 women die from preventable causes related to pregnancy and child birth. The goal of Millennium Development Goals is to improve maternal health. According to MDG, MMR dropped by about 44% worldwide between 1990 and 2015. Between 2016 and 2030 as a part of the Sustainable Development goals, the target is to reduce the global maternal mortality ratio to less than 70 per 100,000 live births. WHO estimates show that out of the 289,000 maternal deaths globally each year, 50,000 (17%) are in India. This is the highest burden for any single country. The maternal mortality ratio in India is 178 deaths per 100,000 live births. In India there is a wide range of variation in different regions and various hospitals. Factors influencing maternal mortality are age and parity, socioeconomic standards, efficient antenatal and intranatal care, place of delivery and presence of skilled birth attendant, availability of blood transfusion and transport services. Maternal mortality is higher in women living in rural areas and among poorer communities. Young adolescents face a higher risk of complications and death as a result of pregnancy than other women. Direct obstetric causes of maternal deaths are haemorrhage, infection, unsafe abortion, toxemia, obstructed labour. Indirect causes are anaemia, infective hepatitis, cardiac disease, miscellaneous.

The aim of the study is

- To study the maternal mortality in our hospital.
- To assess the epidemiological aspects of maternal mortality.
- To assess the causes of maternal mortality.
- To suggest ways to reduce the MMR.

METHOD: The present study was a retrospective study conducted in the department of OBG, GGH, Kurnool. Data regarding maternal mortality was collected from the maternal mortality register. The

details of maternal deaths from January 2016 to December 2016 were collected. The following epidemiological parameters were taken

- Age
- Parity
- Literacy status
- Unbooked/booked

The aetiological factors contributed to death were noticed.

RESULTS: Total 54 maternal deaths occurred. Results are analysed based on age, parity, area, literacy status, booked / unbooked and aetiological factors as follows:

Age

Age(yrs)	No.of deaths	Percentage
18-20	24	44.4%
21-25	20	37%
26-30	7	12.9%
31-35	3	5.5%

2) Parity

Primi	22	40.7%
G2	16	29.6%
G3	11	20.3%
G4	3	5.5%
G5	2	3.7%

3) Area

Rural	45	83.3%
Urban	9	16.6%

4) Antenatal care

Unbooked	50	92.5%
Booked	4	7.4%

5) Aetiology

Antepartum eclampsia	14	25.92%
Pre eclampsia	7	12.96%
Gestational hypertension	1	
Imminent eclampsia	1	1.8%
Encephalitis	1	
Abruptio placentae	7	12.9%
PPH	3	5.55%
Anemia	11	20.37%
Heart disease	2	
Jaundice	2	3.7%
Rupture uterus	2	
Ectopic pregnancy	1	1.8%
Sepsis	2	3.7%
Total deaths	54	

DISCUSSION:

In this study most of the deaths were in the age group 18-25yrs. Most of the deaths were due to Hypertensive disorders and complications of them. The next aetiological factors contributing majorly were anaemia and antepartum hemorrhage. Most of the maternal deaths were in unbooked cases who didn't have regular antenatal checkups and were referred lately. Maternal mortality is an index of reproductive health of the society. This study has comparatively high MMR which could be due to the fact that our hospital is a tertiary care hospital and receives a lot of complicated referrals from rural areas of four districts of Andhra Pradesh and two districts of Telangana.

All these are preventable causes of maternal mortality provided the treatment is instituted in time. Unfortunately, in many cases patients were referred very late, in critical condition, unattended by health care worker. Most of these deaths are preventable if patients are given appropriate treatment at periphery and timely referred to higher centres. Training of medical officer and paramedical staff in basic emergency obstetric care is mandatory. In India several important initiatives have been rolled out under the RCH programme and NRHM. Despite such unprecedented attention however the reduction in MMR has been decelerating in recent times and most maternal deaths in India continued to be associated with determinants such as illiteracy, nutrition, poverty, socio economic marginalization over which policies have had little or no impact.

CONCLUSION:

Most of the complications developed during pregnancy are preventable and treatable. The current challenge is to identify and outline the role of government health and private sectors, communities and households in population wide strategies to improve access, delivery and utilization of health care services. Besides, concerted engagement is necessary to develop comprehensive methods for interpreting and responding to the problem high MMR in India. In order to improve maternal health barriers that limit access to quality maternal health services like poverty, cultural practices must be identified and addressed at all levels of the health system. (Preventing early marriages, short birth interval pregnancies, high number of children) Identifying high risk factors in pregnant women is one of the important aspects of antenatal surveillance. As quoted by one senior obstetrician "Women are not dying because of diseases doctors cannot treat. They are dying because societies have yet to make the decision that their lives are worth living".

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