MATERNAL MORTALITY OF HEAD QUARTER HOSPITAL, BELLARY

SUNANDA KULKARNI ● SUMANGALA ATHANI ● SHATHA SEETHARAM

SUMMARY

Maternal mortality was analysed for 8 years in head quarters hospital, Bellary, from 1.1.1988 to 31.12.1995. Retrospective analysis showed that there was no decline in maternal mortality. Totally 367 maternal deaths were recorded amongst 21314 live births giving a maternal mortality rate of 1721.8/100,000 live births. The cause of death varied from hemorrhage, PIH, sepsis to jaundice. Direct cause of death was observed in 68.7%, indirect cause of death in 30% and others 1.3%. 80% of cases were unbooked and 88% below the age of 30 years.

INTRODUCTION

The maternal mortality rate in India is still high. Woman plays a key role in the family. Her death is a disaster to her family. Maternal mortality is a sensitive index of MCH. Though the services are available, the utilisation of services depends upon the awareness of the rural population. The analysis was done to study the causes of deaths occurring in HQH hospital and avoidable factors if any.

Dept. of Obst. & Gynec. HQH Hospital Bellary
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MATERIAL AND METHODS

The information about all maternal deaths taking place at our hospital from January 1988 to December 1995 were analysed. The proportion of direct-indirect and unrelated causes of death studied. Attempts were made to determine the exact levels at which death could have been avoided in order to determine the extent to which the patient, her environment, the peripheral health care providers and the institution were responsible in causing the death.

OBSERVATIONS

In all 367 deaths were recorded during this period among 21314 live births. The maternal mortality rate is shown in Table No. 1. MMR ranges from 2063.5 to 1452.5 and it is almost in same range except in 1988.

Table 1
MMR for 100,000 live births.

Year	1988	1989	1990	1991	1992	1993	1994	1995
No. of Maternal deaths	63	42	39	40	40	48	44	47
No. of live birth	3053	2793	2685	2685	2523	2499	2415	2661
MMR	2063.5	1503.7	1452.5	1489.7	1743.9	1920.7	1821.9	1766.2

Table II
Leading causes of death

Year	Cause	%
1988	Sepsis	36.50%
1989	PIH	40.47%
1990	Haemorrhage	30.76%
1991	PIH	30.00%
1992	PIH	31.81%
1993	Anaemia	35.41%
1994	Haemorrhage	27.27%
1995	Jaundice	29.78%

Table No. II shows that sepsis was the leading cause of death initially, PIH and haemorrhage have taken uppertrend in killing the patient later except during last year.

Table III

Cause	No. of Cases		%
PIH	89}		24.25%
Haemorrhage	87}	Direct	23.70%
Sepsis	76}		20.70%
Anaemia	66}	Indirect	17.98%
Hepatitis	44}		11.98%
Others	05		01.30%

Table III displays the causes of deaths in the last 8 years. Totally in 252 cases (68.7%) death was due to direct causes like PIH, Haemorrhage and sepsis. In indirect cause, Jaundice is the main cause of death.
Indirect cause of death was responsible in 110 cases (30%) and unrelated causes in 5 cases (1.3%).

Amongst the direct cause of death eclampsia was the commonest cause of death and these patients were brought in comatose state and in majority of the cases the BP was more than 180/120 mm of Hg and very few patients were administered any sedation before they were brought to the hospital.

The obstetric haemorrhage accounted for 23.7% (87) of cases. Haemorrhage was responsible for death as majority were moderately anaemic. This group included accidental haemorrhage, post partum haemorrhage, placenta previa, retained placenta, ruptured uterus, ectopic pregnancy and vesicular mole. Replacement of blood was either impossible or delayed in these patients.

All 12 cases died due to ruptured uterus had come with obstructed labour and bleeding. Prolonged labour, ketoacidosis anaemia also contributed to these deaths. Laparotomy, blood transfusion and higher antibiotics could not save these patients.

Puerperal sepsis and post abortal sepsis have now become less, but still it was the major csuse of death in 76 cases (20.7%). In all 25 patients had peritonitis as a result of criminal abortion and in 49 cases it was due to chorioamnionitis due to handling of the pregnant woman by untrained birth attendent at home. In 2 cases post operative sepsis killed the patients who were admitted after being handled outside the hospital.

Amongst the indirect causes of death, infective hepatitis seems to be the largest killer of pregnant women. Out of 44 cases, 22 had hepatic coma and others died due to hepatic encephalopathy, post partum bleeding, sepsis, pulmonary embolism and hepatorenal failure.

Severe anaemia complication has caused death in (66) 18.8% of cases. All these patients had Hb less than 5 gms, blood could not be transfused in these

patients because of non availability of blood and 50% of these patients entered the hospital with cardiac failure.

In the last group, other causes of death were heart disease, gastroenteritis and anesthetic complications. Amongst 5 cases in this group 3 patients had cardiac disease, who were admitted in third trimester of pregnancy with failure. All these patients died soon after the labour. Anaesthetic complication was due to cardiac arrest. This patient was obese hypertensive and she had previous caesarean. She had 3 times cardiac arrest and lastly she died.

Table IV

Primi	181	49.3%
Multi	120	32.6%
Grand multi	066	18.1%

Table IV shows the parity distribution. Majority of these patients were young primigravidae. Highest was gravida 13, who died due to ruptured uterus.

Table V

Age	No. of case	%
Teenage	145	39.5%
20-30	178	48.5%
30 yrs.	044	12%

It is shocking to see that 145 cases were teenaged pregnancy comprising 39.5% and 178 cases less than 30 years of age. PIH and criminal abortions in unwed mothers are common in teenage group. The youngest was 14 years old and she died due to criminal abortion. The oldest was 45 years old, died due to puerperal sepsis within 12 hours after admission.

Table VI

Admission interval	No. of cases	%
< 24 hrs.	190	51.77
24 hrs. - 7 days	137	37.32
> 7 days	040	10.89

Table VI shows that majority of patients died within 24 hours after admission and those who died later than a day had jaundice or sepsis.

DISCUSSION

The present study shows that there is not much decline in maternal mortality since last 8 years and it reflects care in rural areas. Leading causes of death are haemorrahage, sepsis and PIH, which co-relates with the study of Lalita et al 1994. Though the pregnancy is physiological, rural mothers do not withstand the stress and strain of pregnancy and unexpected complication. Amongst indirect cause of death infective hepatitis is the most common cause of death and our study correlates with the study of Bhaskar Rao (1980). 51.7% of our patients died within 24 hours shich agrees with the study of Bichile & Razvi (1994) and A N Shotri et al (1994).

Childhood marriage and teenage pregnancy becomes hazardous to the young girl. Illiteracy, lack of education, taboos come in the way of blood donation. Criminal abortion which is common in young unwed mothers can be prevented by mass education, control of sepsis, replacement of blood, antibiotics and laparotomy.

No doubt well equipped hospital, ICU, specialist services, life saving drugs, blood transfusion facility and well equipped operation theater are important to reduce the MMR, but apart from medical services, education of girl child, prevention of childhood marriage, taboos for blood donation, sanitation, protected water supply, mass education play a key role in reducing mortality.

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