

STUDY OF MATERNAL MORTALITY OVER TEN YEAR PERIOD (1976-1985) AT UMAID HOSPITAL JODHPUR.

VIMAL SHARMA • USHA SHARMA • BHARTI JAIN

SUMMARY

In the decade 1976-1985 the causes of maternal death at Umaid Hospital, Dr. S.N. Medical College, Jodhpur, Rajasthan, were analysed to find out the preventable factors of maternal mortality. There were 50483 live births and 366 maternal deaths making maternal mortality rate of 725 per 1,00,000 live births.

Haemorrhage was the commonest direct obstetric cause of maternal deaths. Anemia and hepatitis were the commonest indirect causes of death. 85% of these patients were unbooked emergencies admitted in a moribund condition and 61% were of rural areas. In 90-95% of maternal deaths preventable factors were present. These deaths could have been prevented by adequate ante-natal, intra-natal and post-natal care, by correction of anaemia by providing trained personnel for deliveries under aseptic condition, by providing effective blood transfusion services, improving the communication and transport system, by organising 'Flying Squad' services and supervision of all these by specialist and senior doctors.

INTRODUCTION

The maternal mortality (FIGO) has been defined as the number of women dying from any causes while pregnant or within 42 days of termination of pregnancy per 1,00,000 live births irrespective of duration & site of pregnancy (Krishna Menon et al 1986). The causes of maternal deaths are (1) Direct causes involving mainly triad of sepsis, haemorrhage and toxemia (2) Indirect causes and (3) unrelated causes.

Maternal mortality is a fine measure of qual-

ity of maternal & child health services rendered in a country, in a slate and in different hospitals. It helps in planning and providing better MCH care to society. (in developing countries though it has declined by 10-20 times) it is still distressingly high in our country ranging from 500-800 per 1,0,000 live births.

MATERIAL AND METHODS

The present retrospective study was done at Umaid Hospital Dr. S.N. Medical College, Jodhpur, Rajasthan to analyse the causes of maternal death during the decade (1976-1985) and to find out the preventable factors.

A thorough analysis of the individual case record of all the cases was undertaken with respect to antenatal registration, maternal age, parity, cause of death, stage of pregnancy at the time of death and mode of delivery.

The autopsy information was not available since it was never performed because of social objections.

CAUSES OF DEATH (TABLE II)

In 75.13%, cases direct obstetric causes was responsible. Haemorrhage was the major direct cause accounting for 32.24% of deaths, of which 26.76% were due to antepartum haemorrhage, 15.95% due to post partum haemorrhage. 25.42% due to ruptue uterus, 12% due to LSCS, 6.77% due to inversion uterus and remaining were to coagulation failure (5.93%) abortion

TABLE I
Maternal Mortality per year (1976 - 1985)

Year	Total live births	Total Maternal deaths per year	Maternal Mortality Rate per 100,000 Live birth
1976	3762	46	1222
1977	4145	37	892
1978	4407	40	907
1979	5092	39	765
1980	5333	33	618
1981	5323	41	770
1982	5334	34	637
1983	5524	36	651
1984	5697	29	509
1985	5866	31	528
Total	50483	366	725

OBSERVATIONS AND RESULTS

During the decade 1976-1985 there was 50,483 live births and 366 maternal mortality of 725 per 1,00,000 live births. The year wise distribution is shown in Table No. I. 81.5% of these deaths were unbooked, cases 60% from rural areas and 54.9% in the age group between 20-30 years, paritywise death were 29% in primigravida, 56% multigravida (1-5) and 15% grand multipara (more than 5)

haemorrhage (5.93%) hysterectomy and other operations (2.5%), ectopic pregnancy (0.84%). Sepsis accounted for 23.49% of maternal deaths due to direct cause, of which 56.9% were due to puerperal sepsis 39.2% due to septic abortion and 3.9% due to pregnancy with septicemia. 57 cases (15.5%) died due to toxemia (PIH). 52 cases died due to eclampsia and 5 cases died because of severe fulminating toxemia. Among the eclampsia group 32 cases were antepartum and

TABLE II
Classifications of causes of maternal deaths

Direct causes	No. of maternal death	%	Indirect causes	No. of maternal deaths	%	Unrelated causes	No. of maternal deaths	%
Haemorrhage	118	32.24%	Anemia	30	8.13%	Cerebral malaria	7	1.93%
Sepsis	86	23.49%	Hepatitis	26	7.10%	Miscellane- ous (Int. Obst., Meningetis, Anaphylactic shock)	9	2.45%
Toxemia	57	15.55%	Heart disease	11	3.00%			
Thrombo- embolism	14	3.85%	Others	8	2.26%			
Total	275	75.13%		75	20.49%		16	4.38%

20 were postpartum. Thromboembolism account for 3.8% of deaths due to direct cause.

Among the indirect causes, anaemia was responsible in 8.13% hepatitis (hepatic coma) in 7.10% heart disease in 03% in cerebral malaria in 2.4% and miscellaneous, 4.09%

DISCUSSION

As seen from present series, haemorrhage, sepsis and toxemia still remain leading direct causes of maternal deaths. Leading cause of death in our series was haemorrhage in 32.24% cases. These cases were associated with moderate to severe anaemia. Some of them died due to non availability of blood at critical time. In other series haemorrhage was responsible for deaths in 35.2% (Devi & Singh, 1987), 22.8% (Beebi, 1987) and 35.6% (Varawalla et al, 1989).

The incidence of mortality due to sepsis was 23.49% in our series as compared to other 7% (Devi & Singh, 1987), 12% (Beebi, 1987), 3.3%

(Varawalla et al, 1989).

All deaths due to eclampsia (52 cases) were admitted as unbooked emergencies & 95% could have been prevented by antenatal care & early hospitalisation.

Deaths due to severe anaemia also could have been prevented by prophylactic iron & folic acid administration, antenatal care and detection and treatment of anaemia.

CONCLUSION

Maternal mortality is still a major hazard in obstetrics. Its prevention is one of the foremost goal of modern obstetrics. In India, there is an urgent need for proper implication of existing health programme especially in rural areas. Though facilities for antenatal and intranatal care are present, a large number of expectant mothers do not take advantage of these due to ignorance, carelessness, lack of education, social and religious taboos, so efforts should be made to im-

prove the status of women through health education, knowledge of hygiene and complications pregnancy. Many of deaths can be prevented by proper antenatal, intranatal and postnatal supervision, avoidance of unwanted births and training of traditional birth attendant to identify and refer the high risk patients, Periodic refresher courses of medical officer, team work in intranatal care, availability of communication and transport facility to moribund patients, availability of "Flying squads" and better blood transfusion

facility are essential and important measures to reduce maternal mortality in India.

REFERENCES

1. Beebi, N.A. : *J.Obstet. Gynaec. India.* 37:820, 1987.
2. Devi, Y.L. and Singh J. : *J. Obstet. Gynaec. India,* 36:90, 1987.
3. Varawalli N. Y., Ghamande S., Ingle K.M.J. *Obstet. & Gynae. India* 4:513, 1989.
4. Rao, K.B.: *In Postgraduate Obstetrics & Gynaecology,* Ed. by Krishnamenon, M.K.Devi, P.K. and Rao, K.B. 3rd edition, Madras : orient Longman, 1986, p. 196.

[The following text is extremely faint and largely illegible due to fading and bleed-through from the reverse side of the page. It appears to contain a summary and a concluding paragraph.]