The Safe Motherhood Initiative - Maternal Health in the Community, Caring for Future

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ABSTRACT

Introduction: Maternal mortality is a very sensitive index of MCH SERVICES in the community. It reflects not only the inadequacy and quality of maternal services but also in reality it is an index of the socioeconomic status, poverty, ignorance and social customs of people. Study was done to determine various factors that affect obstetric emergencies.

Material and Methods: Retrospective study was conducted on 640 consecutive non booked cases and 252 consecutive booked cases of obstetric emergencies who attended department of OBGY of RIMS srikakulam during a period of one year from 1st September 2014 to 31st august 2015. Data was collected by simple random sampling technique by taking random number as 5, every 5th patient whoever attends emergency department of OBGY until the sample size was obtained. Chi square test was used to find the significance.

Results: Prevalence of Obstetrics emergency in non booked case was 29.7% and 4.49% booked cases. Majority of the booked and non booked cases belong to low socio-economic status (57.59% and 53.05 respectively). Occurrence of obstructed labour in21.8%, eclampsia (9.91%), APH (9.47%), third stage complications (5.41%) and rupture of the uterus (2.86%). Maternal mortality was 10 out of 902 cases. 71% of Obstetric emergencies are non booked cases had no anti natal checkups. 84.58% of non booked Obstetric emergencies were illiterates when compared to 19.42% of booked Obstetrics.

Conclusion: Establishment of 1st referral institutions for skilled care by improving community health centers where staff must be trained in the essential Obstetrics functions. Proper referral system and provision of large number of peripheral maternity units. Improvement of communication and transport system. Maternal death review Audit to find out lacunae, ultimately education, uplifting the social economic status of the humanity.

Keywords: Maternal Mortality, Obstetric Emergency, Maternal Child Health Care Services. Srikakulam

INTRODUCTION

From time Immemorial there were records of human reproduction the care in pregnancy the pangs of labour rejoicing at the birth of a new life and not infrequently tears of grief due to maternal death in child birth even royalty was not spared of an occasional tragedy like queen Mahamaya (Sidhartha's mother) died on 7th postpartum day and Mumtaz Queen of shajahan died due to postpartum haemmorhage.

In India maternal mortality rate reduced from 212/100,000 live births in 2007 to 178 deaths in 2012 [1]. The advance is largely due to key government interventions like Establishment of First referral units, New antenatal care programme to Identify risk factors (WHO 1998) such as the Janani Suraksha Yojana Karyakram scheme which encompasses free maternity services for women and children, a nationwide scale up of emergency referral system and maternal death Audit and improvement in the governance and management of health services at all levels. However adolescent girls and illiterate mothers and those living in hard to reach safe area still have a much greater chance of dying in child birth. Adolescent girls outside Indian cities are especially vulnerable as teenage marriage and pregnancies are very high in rural and remote areas of the country. Globally 800 die every day of preventable cause related to pregnancy out of which 20% is contributed by India, currently it is estimated to be 212 per 1,00,000 live births, as per the objectives of Millennium Development Goals[2].

In India maternal mortality is still very high and the rates tend to be over urban an area which reflects easier access to medical services in city dwellers investigation into the magnitude of maternal mortality was started in 1933 in Madras by Mudaliar. The WHO meeting held on this subject in Geneva in November 1985 has a very important milestone as it laid the ground work for the prevention of maternal deaths. "Safe Motherhood" conference in Nairobi in February 1987 which gave the call for safe motherhood initiative as a global effort to reduce maternal death by 50% by 2000AD now it has extended the target to reduce maternal death rate to 1% per 1000 live births by 2010AD[3].

Maternal mortality is a very sensitive index of maternal child health services in the community. It reflects not only the inadequacy and quality of maternal services but also in reality it is an index of the socioeconomic status, poverty, ignorance and social customs of people. A happy child is nation's pride. A child without his/her mother is not hale and healthy. Death of mother is not personal it is a family, social tragedy. Study aimed to determine various factors that affect obstetric emergencies

MATERIAL AND METHODS

A retrospective hospital based documentation study was

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conducted on 640 consecutive non booked cases and 252 consecutive booked cases of obstetric emergencies who attended department of obgy of rims srikakulam during a period of one year from 1st September 2014 to 31st august 2015 were studied. With the approval of ethical committee of the institute. Consent was taken from the patient and attenders for the procedures and treatment on the day of admission.

Retrospective case sheet documentation showed, at the time of admission detailed history was taken from the patient on age, occupation, socio-economic status and Demographic profile.

A detailed obstetric history with particular reference to high risk factors during previous pregnancies was elicited. A special note was made of the number of contacts with either the traditional birth attendant, auxiliary nurse midwife or doctor. The duration of symptoms and treatment received by the patient prior to the admission were noted either from the history or from the reference note if any given to the patient by the Doctor who managed the case.

A thorough general and Obstetric examination was done; maternal condition at the time of admission was recorded with particular reference to pulse rate, blood pressure, anemia, hydration and signs of sepsis and shock.

Parameter	Number	Percentage
Age		
>20yrs	1	8.34
20-29yrs	4	35
30yrs	0	0
Parity		
Primi	4	33.34
G2-4	1	9
>G5	1	8.33
Antenatal care		
No of visits ≥3	5	41.11
1 or 2 visits	1	8.34
Literacy		
Literate	0	0
Illiterate	5	100
Socio-economic status		
Low income	5	100
Middle income	-	-
High income	-	-
Residence		
Rural	5	100
Urban	0	0
Source of referal		
PHC	3	60
Direct	2	40

Table-1: General profile of mothers who died due to obstetric emergencies

Routine investigations like hemoglobin estimation, urine analysis, blood grouping and typing was carried. Special investigations like Renal function tests, liver function tests, coagulation profile and ultrasonography was performed wherever necessary. The maternal outcome was studied in detail. The maternal mortalities was calculated and analysed. Data was collected by simple random sampling technique by taking random number as 5, every 5th patient whoever attends emergency department of Obgy until the samplr size was obtained.

STATISTICAL ANALYSIS

Data was entered in MS Excel 2007 and analysed using Epi info version 7. Categorical data are expressed in percentages. Criteria of significance used in the study were P <0.05. Chi square test was used to find the association.

RESULTS

Strength of association is tested between economic status and abruption placenta eclampsia pvalue was derived as 0.003 which was highly statistically significant. Prevalance of Obstetrics emergency in non booked case was 29.7% and in booked case was 4.49% (table-1).

In non booked obstetric emergency 76.41% patients was from rural areas and 23.69% from urban slums. Majority of the booked and non booked cases belong to low socio-economic status (57.59% and 53.05 respectively). 84.58% of non booked Obstetric emergencies was illiterates when compared to 19.42% of booked Obstetrics. 71% of Obstetric emergencies were non booked cases had no anti natal checkups at all; rest had one or two checkups which was grossly inadequate (table-2).

Occurrence of obstructed labour in 21.8% and rupture of the uterus in 2.86%of cases clearly illustrates the lack of Intra partum care. Mal presentation was the most common cause of obstructed labour (53.54%) of which transverse lie contributed to 49.49%. APH occurred in 9.47% of cases while 3rd stage complications occurred 5.41% of cases. Placenta previa contributed to 74.42% of APH cases while abruption contributed to 25.58%. The occurrence of eclampsia was 9.91% of cases, most common being antepartum eclampsia (9.25%). Primigravidae were found to be at the risk of having eclampsia (table-3,4).

Maternal mortality was 10 out of 902 cases of which 68.67% cases where Primigravidae. 94.7% of emergencies were avoidable and occurred due to Illiteracy, cultural, and religious taboos, and socio-economic problems contributing to 31% of Obstetric emergency. Lack of transport or communication facilities contributed to 34%. Fault at the primary level is 40% due to lack of anticipation, identification of problems resulting in delayed referral. Inspite of best anti

Causes	Low income	Middle income	High income	Total
Abruption placenta and eclampsia	200	30	20	250
2.PPH	215	20	15	250
3.others	380	90	10	480

Table-2: Study distribution according to economic status

Primary diagnosis	Number	Cause of death
1) Abruptio placenta and Eclampsia	1	Haemorrhagic shock and cerebral Haemorrhage
2) Placenta previa	1	Haemorrhagic Shock
3) PPH	2	Haemorrhagic Shock
4) Rupture uterus	1	Haemorrhagic Shock
5) Obstructed Labour	1	Septic shock
6) Inversion of the uterus	0	Haemorrhagic + Neurogenic Shock
7) Septic abortion	1	Septic shock
Total	8	

Table-3: Analysis of maternal deaths in emergency admissions

Primary diagnosis	Number	Cause of death
Causes of unknown Amniotic fluid embolism	1	Disseminated intravascular coagulation
Jaundice complicating pregnancy	1	Disseminated intravascular Coagulation
Anemia with CCF	0	Pulmonary edema

Table-4: Analysis of other causes of maternal deaths in institutions

natal and intra partum care some Obstetric emergencies are unavoidable but their outcome is better in booked cases.

DISCUSSION

Maternal mortality is unacceptable cause in developing countries like India. Death of a mother is a tragedy; it had a severe Impact on the family, community and eventually, the Nation. The young children left mother less are unable to cope up with daily living and are at risk of death. Reduction of Maternal mortality is the objective of Millennium Goals, especially in low Income countries like India where one in 16 women die of pregnancy related complications.[4] No discussion of maternal, new born, child health is complete without addressing basic Issues of social determinants, the highest mortality is observed in poor who frequently reside in remote and rural area with limited access to health care services.[5] Marmot notes that according to world health organization "social determinants of health are the conditions in which people are born, grow, live, work, and age, these circumstances are shaped by the distribution of money, power and resources at global, national, and local levels".[6]

The Incidence of emergencies in un booked cases was 76.41%, and majority of deaths occurred in un booked cases, and this observation is also made in study done by Roy et al[13].with early marriage customs in rural India majority come with pregnancy in teenage or young age in the present study deaths of early age and primigravida68.67% and 91.25% of Eclampsia took large part of Maternal deaths. Similar study was done by Dogra, Purandare and was observed the same findings.[7-8] In the present study the number of deaths occurred due to post partum hemorrhage 30.77% denotes which also reported in other studies Indicates the need for continuous vigilance in postpartum period and prompt action in case of complications, Intra natal care by skilled attendant, timely management and replacement of lost blood can reduce deaths.

In the present study the most common cause for death of which is Eclampsia. Other direct causes were haemmorrage 30.77%, sepsis 11.54%, and pulmonary embolism 10%. Indirect causes contributed to maternal deaths of which heart disease, cerebrovascular accident, renal failure, and anaemia were the most common causes. Though eclampsia is preventable in almost all cases by good obstetric care, it was found to be the leading cause of death in our Institution. Despite the availability of Magnesium sulphate for the treatment and prophylaxis. Most of the case of eclampsia develops at home or during transport in developing countries like India due to absence of prenatal care and lack of access to proper hospital care.[9-11]

The socioeconomic status, level of education, the quality of patients, nutrition and antenatal care of the patients in our study were very low. lack of antenatal care, delay in early diagnosis, delay in treatment, poor access to hospital, lack of transport to tertiary care[12], lack of trained staff, lack of Intensive units, are responsible for high mortality rate in our Institution which is also observed by other Authors who has done study in Bengal.

All though the focus during the past has been on the savings of lives, the close links among poverty, Inequity, under nutrition, and human deprivation reduced the potentiality of the human development.[9]

CONCLUSION

Action must be directed to improve the status of women and their health with the following measures like good prenatal, Intra natal, postnatal care. Health education must be given through mass media to make mothers aware of the various complications of pregnancy and delivery, the importance of anti natal care and safe motherhood and also about family planning by health workers. Trained doctors and staff must be ensured adequate comprehensive emergency Obstetric training. Establishment of 1st referral units with referral, communicating systems, availability of emergency drugs, blood and blood products. Implementation of NRHM goals by keeping maternal death review audit shall be implemented strictly at community based and facility Based on that measures to be taken to improve lacunae. To review the Audit, proper documentation, reporting is must and mandatory which shall be observed by the medical officers and health staff without fail. Above all an overall socio-

economic uplift, better standards of food and living, and compulsory primary and health education are essential.

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