MATERNAL AND FOETAL OUT-COME IN OBSTETRIC—EMERGENCY CASES REFERRED FROM RURAL AREA AND RECOMMENDATIONS TO IMPROVE IT

by

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Introduction

The rural population in our country has negligible availability of high quality of health services to them because of lack of monetory aid and medical personnel available in rural area.

Hence we must make utmost effort to utilise the existing resources for the benefit of our rural population through the use of primary health care approach.

The present study was undertaken to analyse and show that the maternal and foetal outcome is poor in cases coming from rural area as compared to foetal and maternal out-come in booked cases who delivered at Sassoon General Hospitals, Pune.

For this purpose all the 250 obstetric emergency cases, who were referred from rural area to Sassoon Hospitals, Pune during the year 1977-78 year were included in this study and compared with randomly selected 100 booked cases, who delivered in the hospital during the same period.

The following were different observations.

Observations

TABLE I
Age-wise Distribution of Referred Cases

Age in years	No. of cases	Percentage
15-30	223	89.2%
31-35	19	7.6%
35 onwards	8	3.2%

82.2% of cases were belonging to the age group between 15-30 years.

TABLE II
Parity-wise Distribution of Referred Cases

Parity	No. of cases	Percentage
Primis	112	44.8
2nd to 4th Para.	105	42.0
5th Para and above	35	13.2

Table II shows that 44.8% were primis and also a significant number was grand-multis. Thus majority of referred cases

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were high-risk patients (primis and grand-multis).

TABLE III
Reasons for Transfer

Reasons	No. of cases	Percentage
Prolonged labour	138	53.9
A.P.H.	33	12.7
3rd Stage complication	15	5.7
Toxemia	15	5.7
Cord prolapse and presentation	9	3.5
Premature rupture of membranes	8	3.1
Medical diseases	6	2.6
Prolapse uterus	6	2.6
Twins	5	1.9
Foetal distress	4	1.6
Rupture uterus	3	1.2
I.U.D.	3	1.2
Miscellaneous	13	4.7

Majority of patients were referred for prolonged labour due to malpresentation or C.P.D. or gross pelvic deformity and uterine inertia.

Majority of patients (i.e. 158) arranged their own transport, while Primary Health Center provided ambulance for transport of 92 patients inspite of ambulance being provided at every center. The non-availability of ambulance was either because it was under repairs or driver was not present or the charges for ambulance were heavy which patient could not afford to pay.

All the referred cases came from than 20 Km. from Pune. Out of 250 patients who were referred, 22 mothers arrived to the hospital in poor condition.

TABLE IV
Treatment Given to the Referred Cases at the Centre

Treatment	No. of cases	Percentage
Nil	216	86.4
Resuscitation	6	2.4
Pitocin drip	5	3.0
Other treatment	23	9.2

Majority did not receive any treatment. This attitude of passive observation was due to lack of clinical assessment of these cases at periphery and just to avoid taking any responsibility.

Significant number of babies were either dead or jeopardised before arrival. Total number of babies were 255 because 5 were twin deliveries. Babies in poor condition were having apgar score < 5 and babies in good condition were having Apgar score > 7.

Little less than half the cases did not require any interference and had spontaneous vaginal delivery. Those patients in whom interference was required L.S.C.S. rate was significantly high.

TABLE V
Condition of Foetus on Arrival

Condition of Foetus	No. of cases	Percentage	Condition of already delivered babies	No. of cases	Percentage
F.H.S. +ve	149	65.4	Poor	6	22.2
F.H.S. —ve	31	13.6			
F.H.S. irregular	48	20.0	Good	21	77.8
	228	100.0		27	100.0

TABLE VI
Treatment Given to the Referred Cases

Type of treatment	No. of cases	Percentage
Nil. Vaginal Delivery	107	42.8
L.S.C.S.	79	31.6
Forceps	24	9.6
M.R.P.	8	3.2
Int. podalic version	5	2.0
Miscellaneous	27	10.8

The above table shows that there is lack of trained personnel at the periphery who can clinically assess and judge a case and shoulder responsibility and plan the need for referral.

TABLE VII
Maternal Mortality and Morbidity in Referred Cases

	No. of cases	Percentage
Blood transfusion	28	11.2
Post operation complication	5	2.0
Sepsis	3	1.2
Maternal deaths	3	12/1000 total births

Maternal mortality in this series was 12/1000 total births.

The three maternal deaths were as follows:

(1) A case of acute inversion of uterus died of neurogenic shock.

(2) A case of ruptured uterus. Death was due to negligence on part of patient or her relations.

(3) A case of pregnancy with hepatic coma and death was due to lack of proper judgment to recognise the severity and lack of proper A.N.C.

Significant number of patients required blood transfusion. Post operative complications were in the form of paralytic ileus gaseous-distension thrombophlebitis. One patient suffering from mitral stenosis went into atrial failure post-operatively.

Out of 255 babies of 250 referred cases, 203 were born alive and 52 were still births. Of the 203 live births, 20 babies expired in the neonatal period. Thus there were 72 perinatal deaths, giving perinatal mortality rate of 282.3/1000 total births.

Out of 72 perinatal deaths, 42 babies had weight < 2000 gms. 50% of patients

TABLE VIII
Foetal Outcome

Type of Birth	Wt. < 20000 gms.	Wt. > 2000 gms.	Total and %
Live birth	38 (14.9%)	165 (64.5%)	203 (79.5%)
Still birth	29 (11.4%)	23 (9.1%)	52 (20.5%)
	67 (26.3%)	188 (73.7%)	266 (100%)

TABLE IX
Perinatal Mortality

Type of birth	Wt. <2000 gms	Wt. >2000 gms	Total and %
Stillbirth	29	23	52 (72.2%)
Neonatal deaths within 7 days	13	7	20 (27.8%)
	42(58.3%)	30(41.7%)	72(100.0%)

were discharged within 7 days in good condition weighing > 2000 gms.

The clinical causes of perinatal mortality in this series were:

1. A.P.H.
2. Abnormal labour
3. Cord complications
4. Prematurity
5. Toxemea
6. Congenital malformation
7. Maternal diseases
8. Miscellaneous

Neither parity nor age of patient showed any special relation with perinatal mortality. Majority of deaths (Perinatal) were amongst the patients coming from a distance more than 40 kms.

TABLE X

Showing Comparative Maternal Mortality and Morbidity in Referred and Booked Cases

	Booked cases	Referred cases
1. Sepsis	1%	1.2%
2. Blood transfusion	2%	11.2%
3. Post operative complication	0%	2.0%
4. Deaths	0%	12/1000 total births

There was no maternal mortality and negligible morbidity in booked cases.

Spontaneous vaginal delivery rate was double in booked cases as compared to referred cases, section rate was 6 times higher in referred cases as compared to that for booked cases. Forceps rate was also high in referred cases.

There were 7 perinatal deaths in 100 booked cases giving perinatal mortality rate of 70/1000 total births in contrast to 282.3/1000 total births in referred group.

Discussion

In this series the cases for which the patients were referred as emergency cases to Sassoon Hospitals, majority of them could have been referred to institution much earlier in antenatal period so that many conditions could have been corrected and the remaining ones could have been managed at proper time improving remarkably the foetal and maternal out come.

It was also observed that rate of vaginal delivery in booked cases was twice that of referred cases, the reason being lack of antenatal care for rural patients.

The rate of L.S.C.S. was 6 times higher in referred cases as compared to that in booked cases. The reason for this is also, lack of proper antenatal and intranatal care.

In this series, the maternal morbidity and mortality was 12.6% and 12/1000 respectively while that for the booked cases was 1.2% and nil % respectively. This maternal mortality as compared to the maternal mortality rate of developed countries which ranges from 4/1,00,000 to 700/1,00,000 in different countries is really tremendously high. This indicates ample scope to improve the maternity services to rural areas in India (Bhaskar Rao, April 1978).

The perinatal mortality in this series is 72 out of total 255 birth giving perinatal mortality rate of 282.3/1000 total births during that year. This when compared to perinatal mortality rate in booked cases which is 70/1000 total births during the same period is tremendously high and when compared to perinatal mortality rate in developed countries which ranges from 14.4 to 27.8/1000 total births. The incidence of prematurity is 26.3% in present series. It is also high when compared to the incidence of 3.6% of the new borns in developed countries.

In the present series, the perinatal mortality rate is 282.3/1000 total births

which is very high because it consists of all unbooked cases, while rates of teaching hospitals is an admixture of booked and unbooked cases.

TABLE XI

Perinatal Mortality Rates in Teaching Hospitals of India (Bhaskar Rao, April 1978)

Author	City	P. N. M. Rate/ 1000 total births
Menon, 1971	Madras	78.10
Rao, 1976	Madras	77.10
Gupta *et al* 1976	Chandigarh	78.00
Datta Banik *et al* 1975	New Delhi	75.00
Present series 1978	Pune	282.30

While analysing the data and going to route of The causes of the high maternal mortality and perinatal mortality rates in these referred cases from rural area, are due to the following contributory factors.

1. Illiteracy and cultural and religious superstitions.
2. Socio-economic problems.
3. Lack of community involvement in health services.
4. Lack of trained personnel at periphery.
5. Lack of transport and communication fascilities.

Recommendations

(1) The Rural population must be made aware of various complications of pregnancy and delivery and of the importance of regular antenatal check up. They should be told about the wrong and false beliefs and should be instructed how these beliefs can be got rid off. This basic task of Health Education has to be carried out with the help of Community Health Workers from the community itself. Without the participation of community, no programme or scheme will work satisfactorily in our country. Hence people from the community itself must be involved in Health Education and Health Services. Their basic problems like drinking water, having food and sanitation etc. must be tackled first and health education must be taught simultaneously.

(2) Medical Officer at the Primary Health Centres must be trained for further period of six months in Obstetrics and Gynaecology before they are posted to Primary Health Centres, so that they will be well-up in screening the high-risk patients and to send them to better equipped and specialised institution at earlier date for further care and are capable of managing the normal cases themselves. Similarly, with the help of A.N.M.S. and trained Dais we can superwise all the deliveries in the rural area are made safe. They will also help in Health Education.

(3) Transport facility by means of ambulance services at a very cheap rate must be made available at all times at each Primary Health Centre.

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