

MATERNAL FACTORS INFLUENCING PERINATAL MORBIDITY AND MORTALITY

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SUMMARY

The perinatal outcome can easily be predicted by a simple scoring system of maternal factors. This scoring can be determined not only by doctors and sisters but also by ANM and paramedical staff and patients with higher score referred to larger hospitals where specialists and facilities are available, thus lowering perinatal morbidity and mortality.

Introduction

Successful motherhood is the unique achievement in a woman's life. Though it is a natural phenomenon, yet the way to achieve it may endanger not only the life of the mother but that of foetus as well.

Apart from "Too young, too old, too many and too close" the high risk patients are those which by virtue of their complication need individualised special care.

In India, most of the population has poor knowledge of antenatal and intranatal care available to them. Moreover there is a lack of well organised maternity service to majority of women. To add, there is communication gap and deficiency in transport system. All those factors have certainly added to the increased incidence of maternal and perinatal morbidity and mortality.

The present study aims at developing a very simple scoring system to identify the high risk patients and lower the maternal and perinatal morbidity and mortality by referring the high risk cases to specialised institution where they can be taken care of properly.

Material & Methods

This study was carried out at Department of Obstetrics & Gynaecology, Gandhi Medical College, Bhopal. A total of 500 cases in labour were studied.

Among these, 100 cases were taken as control group and remaining 400 cases were high risk patients. Scoring of the cases was done on the following ground :-

- (i) Age
- (ii) Education
- (iii) Occupation
- (iv) Income-On the basis of Income they were further put in five groups
- (v) Parity

- (vi) Height
- (vii) Weight
- (viii) Haemoglobin-level
- (ix) No. of antenatal visits
- (x) Complications in present pregnancy and past obstetric history.

tal death in booked group were because of malformation incompatible with life. The only maternal mortality was because of Heart disease. Perinatal mortality and morbidity was less in booked cases.

Discussion

Observations

Pregnancy outcome in booked & unbooked cases.

The higher incidence of perinatal loss in the present series might be attributed to the low health care, poor nutrition, low

TABLE-I

No. of Patients	No. Babies	Foetal Outcome				Maternal death
		Live Birth	Still Birth	Neonatal Death	Perinatal Death	
183	195	190 (97.43%)	3 (1.54)	2 (1.036%)	5 (2.56%)	Booked 1
217	221	151 (68.32%)	54 (24.43%)	16 (7.24%)	70 (31.67%)	Unbooked 9 (4.15%)

Table-I & II show that among 400 high risk cases 183 were Booked and 217 were unbooked patients. Perinatal loss in unbooked series was 31.67% in comparison to 2.56% in Booked cases. The perina-

standard of education, poor socio-economic conditions and overall unsatisfactory antenatal care prevailing in the developing countries.

The incidence of still birth as re-

TABLE-II

MATERNAL & FOETAL OUTCOME IN RELATION OF SOCIAL AND ECONOMIC STATUS

Social Class.	No. of Patient	No. of Babies	Foetal Outcome				Maternal Death
			Liver Birth	Still Birth	Neo Death	Perinatal Death	
I	15	15	14	1	-	1 (6.67%)	-
II	18	19	17	1	1	2 (10.53%)	-
III	55	57	54	2	1	3 (5.26%)	-
IV	94	102	90	11	1	12 (11.76%)	1 (1.06%)
V	218	223	166	42	15	57 (25.56%)	9 (4.12%)
Total	400	416	341	57	18	75	10

Higher perinatal & maternal morbidity and mortality in lower socio-economic group.

TABLE-III
FOETAL OUTCOME IN RELATION TO SCORE

Scoring	No. of Patient	Foetal Outcome				Maternal death
		Live Birth	Still Birth	Neo Death	Perinatal Death	
i) Below 10	23	28	-	-	-	-
ii) 10-29	256	235 (90.04%)	20 (7.66%)	6 (2.29%)	26 (9.96%)	1
iii) Above 30	121	78 (61.42%)	37 (9.45%)	12 (7.32%)	49 (29.12)	9 (38.58%)

The above observation indicates that perinatal loss is directly proportional to the higher scoring.

TABLE - IV
EDUCATIONAL STATUS & PREGNANCY OUTCOME

Education	No. of patients	Foetal outcome				Maternal Death
		Live Birth	Still Birth	Neo Death	Perinatal Death	
1. Higher	89	85	3 (3.32%)	2 (2.22%)	5 (5.56%)	-
2. Middle/ Lower	140	131	13 (7.69%)	5 (2.96%)	18 (10.65%)	1 (1.22%)
3. Uneducated	171	125	41 (3.16%)	11 (6.21%)	52 (29.37%)	9 (5.26%)

Highest perinatal loss was in uneducated group.

ported by Nair & Nayer (1965) was 65/1000 while in the present study it was 187/1000. The difference is mainly because of the fact that the majority of the cases admitted in emergencies belonged to high risk group and never had any antenatal check-up.

Different scoring system has been developed to identify the high risk pregnancies by Nesbitt and Aubrey (1969) Effar and Good Win (1969), Hobbs et al (1973) Coopland et al (1977) and Morrison et al (1979-80). In India a simplified scoring system for identification of high risk births was suggested by Bhargava et al (1982). Taylor (1967) stated that "More and better

prenatal care is not the complete solution. The answer lies in raising the standards of living of the under-privileged, the underfed, the under housed and the under educated so that this group assimilated in to larger middle class."

From this study it is concluded that high risk patients do have a higher maternal & perinatal morbidity and mortality rate. But the incidence can certainly be lowered by a proper screening programme at grass root level and a good referral System. It is not the literacy but the proper education specially to the women would have an impact on the maternal and child health.

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SUMMARY

The study was conducted in a tertiary care hospital over a period of 18 months. The objective was to identify maternal factors influencing perinatal morbidity and mortality. A total of 1200 deliveries were analyzed. The study revealed that maternal age, parity, and socio-economic status were significant factors. The incidence of perinatal loss was higher in primigravidae and in women with low socio-economic status. The study also identified that maternal health and nutrition during pregnancy were crucial factors. The findings suggest that early prenatal care and nutritional support for pregnant women can significantly reduce perinatal morbidity and mortality.

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