

TABLE I

PERINATAL MORTALITY

TABLE II

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## PERINATAL MORTALITY IN TWIN PREGNANCY

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### SUMMARY:

In spite of advances in obstetrics and neonatology perinatal mortality in twin pregnancy is still alarmingly high. This study is a review of 144 twin pregnancies over a period of five years with perinatal mortality of 21.87%. It was more in the second baby mainly because of malpresentations and delay in delivery of the second twin. Perinatal mortality was almost 3 fold higher in emergency admissions as compared to booked cases. Prematurity was the main factor responsible for the high perinatal mortality

### INTRODUCTION:

Perinatal mortality is the yardstick of Obstetric services in an institution. However, in cases of multiple pregnancy, complications of pregnancy and labour increases the perinatal loss. Roy Chaudhary and Sikdar (1981) found perinatal mortality in twin pregnancy to be 4 times higher than that in singleton pregnancy.

In this study we have reviewed 144 cases of twin pregnancy over a period of five years and the role of various factors affecting perinatal mortality.

### MATERIALS AND METHODS:

From August 1984 to December 1989, one

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hundred and forty four patients with twin pregnancy were delivered at the B.Y.L. Nair Charitable Hospital. Total number of confinements during this period was 16,066 giving incidence of twin pregnancy as 1 in 111 or 8.9 per 1000 births.

Incidence of stillbirths, neonatal deaths as well as perinatal mortality in first and second twin and probable factors affecting the mortality rate were studied.

Out of 144 patients, 199 were registered cases while 25 patients were admitted in labour as emergency cases. Most of the patients were diagnosed as twins either during antenatal period or at the time of admission and neonatologists were in attendance at the time of delivery. Only 8 cases (5.5%) were diagnosed after the delivery of first baby.

**RESULTS AND ANALYSIS**

Twenty six cases were primigravidae while 118 patients were multigravidae. The period of gestation at the time of onset of labour varied from 26 weeks to 40 weeks. But no patients had gone beyond her expected due data. Out of 144 pairs of babies 1207 were of like sex and 37 were of unlike sex.

**INCIDENCE OF PERINATAL MORTALITY:**

Out of 288 babies there were 63 perinatal deaths giving an incidence of perinatal mortality of 21.87%. Out of them 19 (30.15%) were stillbirths while 44 (69.84%) were neonatal deaths. (Table I)

**EFFECT OF MATERNAL AGE ON PERINATAL MORTALITY:**

Joseph (1964) found that perinatal mortality increases after 31 years of age. In our study, however, there was not much difference in perinatal mortality in different the age groups. after

the age of 21 years. Perinatal loss was higher amongst teenagers.

**REGISTRATION STATUS AND PERINATAL MORTALITY:**

In our study 25 patients were admitted in Labour as emergency cases. Out of these 50 babies 23 (46.0%) were perinatal deaths. Out of the remaining 238 babies of 119 registered patients, perinatal loss was only 40 (16.8%) (Table III). Modi & Ganesh (1984) found perinatal mortality of 17.6% in registered booked cases as compared to 46.28% in the emergency group.

**MODE OF DELIVERY AND PERINATAL MORTALITY:**

Incidence of caesarean sections was 14 out of 144 cases i.e. 9.7%. Out of 14 caesareans two were done for the second twin after the first had delivered vaginally. Out of 144 first twin babies 25 (17.36%) were delivered by breech, while out of remaining 119 second twin babies, 46 (38.6%) were delivered as breech, two of them after

**TABLE I**

Incidence of Perinatal Mortality

	1st Baby	2nd Baby	Total
No. of Babies	144	144	288
Fresh Stillbirths	04	06	10
Macerated Still births	03	06	09
Neonatal Deaths	20	24	44
<b>Total Deaths</b>	<b>27</b>	<b>36</b>	<b>63 (21.87%)</b>

**TABLE II**

Maternal Age and Perinatal Mortality

Maternal Age	No. of s Babies	No. of Perinatal loss
20 years and less	62	18 (29.0%)
21 to 25 years	146	28 (19.1%)
26 to 30 years	58	12 (20.6%)
31 years and more	22	05 (22.7%)
<b>Total</b>	<b>288</b>	<b>63</b>

**Table III**

ANC Registration and Perinatal Mortality

ANC Registration	No. of patients	No. of Perinatal Deaths
Cooked	119	40 (16.8%)
Not Booked	25	23 (46.0%)
<b>Total</b>	<b>144</b>	<b>63</b>

undertaking an internal podalic version. Thirty six out of the 63 babies were lost i.e. 57.14% of the second of the twins. (Table IV). Narvekar and Thakur (1986) found perinatal mortality of second twin as 58%.

#### BIRTH WEIGHT AND PERINATAL MORTALITY:

Prematurity or low birth weight is the most common cause of the high perinatal mortality in twin pregnancy. Out of 80 babies weighing less than 0.5 kg, there were 47 perinatal deaths which accounted after 74.6% of total perinatal loss. Whereas out of 108 babies weighing more than 2.0 kg only 3 expired. (Table V).

#### DISCUSSION:

Various studies have confirmed that perinatal mortality in multiple pregnancy is higher than singleton pregnancy. This is mainly because of prematurity, malpresentations, operative interferences, and delay in delivery of the second twin. In this study incidence of perinatal mortality was 21.87% which is comparable to other studies. Saha (1987) found it to be 26.9% while Sholapurkar (1984) quoted it to be 35.8%.

Perinatal mortality was 16.8% in registered patients while it was as high as 46% in emergency cases. Modi & Ganesh (1984) found similar results and in their study the reduction in

TABLE IV

#### Mode of delivery and Perinatal Mortality

Mode of Delivery	1st baby		2nd Baby		Total	
	No.	PNM	No.	PNM	No.	PNM
Normal delivery	103	18	76	20	179	38 (21.22%)
Breech	25	04	46	11	71	15 (21.12%)
Face	-	-	03	-	03	-
Vacuum	-	-	01	-	01	-
Forceps	04	01	04	01	08	02 (25.0%)
Caesareans	12	04	14	04	26	08 (30.76%)
<b>Total</b>	<b>144</b>	<b>27</b>	<b>144</b>	<b>36</b>	<b>288</b>	<b>63</b>

TABLE V

#### Birth Weight and Perinatal Mortality

Birth Weight	1st Baby		2nd Baby		Total	
	No.	PNM	No.	PNM	No.	PNM
Less than 1.0 kg.	14	13	20	18	34	31 (91.1%)
1.05 kg to 1.5 kg	19	07	27	09	46	16 (34.7%)
1.55 kg to 2.0 kg	53	05	47	08	100	13 (13.0%)
2.05 kg to 2.5 kg	42	02	37	01	79	03 (3.7%)
2.55 kg to 3.0 kg	13	-	10	-	23	-
3.05 kg & more	03	-	03	-	06	-
<b>Total</b>	<b>144</b>	<b>27</b>	<b>144</b>	<b>36</b>	<b>288</b>	<b>63</b>

mortality was mainly due to decreased, neonatal deaths rather than stillbirths, as antenatal care reduced incidence of low birth weight.

Manipulative and operative deliveries are more frequently necessary in twin deliveries because of malpresentations and malpositions. In our study of breech 31.9% in the second of twin & 17.36% in the first of twin. Perinatal mortality in second twin was 57.14% which is slightly higher than that in first twin which was 42.85%. This was mainly due to the higher incidence of malpresentations and delay in delivery of the second twin.

In the study average interval between the delivery of the first and second twin was 20 minutes, though it varied from 2 minutes to 75 minutes. Surprisingly we did not find any difference in perinatal mortality of the second twins delivered within 30 minutes and those delivered after 30 minutes.

Low birth weight is the main factor responsible for higher perinatal mortality. While there was not a single death in 29 babies weighing more than 2.5 kg, perinatal loss was as high as 31 out of 34 babies weighing less than 1.0 kg.

Out of 44 neonatal deaths 34 (77.2%) were due to prematurity and 6 (13.6%) were due to asphyxia which were main causes for neonatal deaths.

Thus proper antenatal care, planned delivery with shorter interval between deliveries of two babies and better facilities for care of premature babies can bring reduction in perinatal mortality of twin pregnancy.

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