

## IMPACT OF CURRENT OBSTETRIC PRACTICE ON PERINATAL SALVAGE

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### SUMMARY

A total number of 6352 newborns were studied during a period of 15 months from Nov. 91 to Jan. 1993 and their perinatal salvage in relation to different birth weights were noted. The overall perinatal mortality rate was 41.5/1000 and PNMR above 1500 gms of birth weight, was found to be 21.7/1000. This we could achieve by adopting the modern methods of surveillance without increasing the primary caesarean section rate which is only 17.9%

### INTRODUCTION

Perinatal mortality rate truly reflects the obstetric care offered to the community. In fact it depends on the obstetric practices adopted in a particular institution.

Current obstetric practice has been heavily influenced by the technological advances like CTG, Ultrasonography and Doppler Velocimetry studies in addition to the routine surveillance studies (Sarkar et. al, 1991, and Soothil et. al, 1991) CTG has been used effectively for antepartum and intrapartum Fetal monitoring. Assessment of gestational age, gestational weight growth rate, fetal anatomy and fetal well being can be done using ultrasonography and in selected cases

by Doppler.

Here, in this study we aim at the impact of such management on the perinatal outcome as well as the caesarean section rate in our institution.

### MATERIALS AND METHODS

This study includes all the cases admitted in labour ward for a period of 15 months from Nov. 91 to Jan. 93. Newborns were classified according to their birth weights and their perinatal salvage noted. (Table I) PNMR in our institution and that above 1500 gms of birth weight was found out (Table II) A total No : 6352 new borns were included in this study. The various factors responsible for perinatal mortality were also noted (Table III).

Table I  
Perinatal Salvage According to Birthweight

Wt in gms	Total	No. died	PNM %	Salvage %
< 1000 gms	38	29	76.3	23.7%
1000 - 1500	194	101	52.5	47.5%
1600 - 2000	392	62	17	83%
2100 - 2500	1122	30	2.6	97.4%
> 2500	4614	46	.9	99.1%

Table II

PNMR from Nov. 1991 - Jan. 1993

Total New borns	No. of deaths	PNMR/ 1000
6352	263	41.5
Corrected above 1500 gms		
6120	133	21.7

**RESULTS**

Analysing the data there were 263 deaths in 6352 new borns making a PNMR of 41.5/1000. The 263 deaths included 46 premature babies, 44 unexplained I. U. D. s and 31 congenital anomalies. Rest were caused by maternal and neonatal factors. The PNMR when corrected according to birth weight of more than 1500 gms was found to be 21.7/1000. The PNMR was decreasing with increasing birth weight. The perinatal salvage for 1600 gm was 71.8% and for 2000 gm - 88.8%. The break down figure from

Table III  
Etiology of PNM

No.	Diseases	Total	No. Died	%
1.	PIH	263	53	20.1
2.	Prematurity	"	46	17.4
3.	Cong. Anomaly	"	31	11.4
4.	IUD	"	44	16.6
5.	Abruption	"	15	5.7
6.	Placenta Previa	"	6	2.8
7.	IUGR	"	5	1.9
8.	Breech	"	7	2.6
9.	Rh	"	8	3.4
10.	Med. disorders	"	6	2.3
11.	Cord complications	"	3	1.1
12.	Septicemia	"	4	1.5
13.	Others	"	35	13.5

1600-2000 gm are given in table IV. The average term birth weight of our institution was also noted and it was found to be 2800 gms. Table V. The common maternal diseases causing PNM were Pre-eclampsia, placenta previa, and abruptio placenta - the incidences of them in our hospital and the perinatal mortality in each one of them is

Table IV

## PNMR from 1600 - 2000 gms

Wt in gms	Total	No. died	PNM %	Salvage %
1600	39	11	28.2	71.8
1700	77	14	18.1	81.9
1800	53	18	15.7	84.3
1900	64	6	9.3	90.7
2000	159	18	11.2	88.8

Table V

## Average term birth weight

Percentile	Wt. in gms
10	2300
25	2500
50	2800
75	3000
90	3300

Table VI

## Incidence of maternal diseases and perinatal mortality in them

Diseases	Incidence %	PNMR %
Pre eclampsia	8.6	12.4
Abruptio Placenta	1	25
Placenta Previa	.6	15

Table VII

## LSCS Incidence

Total Incidence	PRE C. S.	Primary C. S.	PNMR
26.6%	39.9	17.9	.63%

noted in Table VI. In Table VII the incidence and indications of C. S. in our institution is noted.

## DISCUSSION

The PNMR of our institution is 41.5, corrected to 21.7 for birth weight above 1500 gms. It appears to be one of the lowest quoted in India (Mehta 1983). In this study we prove that by employing the modern gadgeteries and proper monitoring a meaningful reduction in PNMR is possible.

No study on perinatal mortality becomes complete without a recourse of the caesarean section rate of the institution. Here our data supports the role of modern monitoring

techniques, not only in decreasing PNMR, but also simultaneously decreasing the Caesarean section rate. Among the 6352 deliveries the rate of primary caesarean section is only 17.9%. Use of electronic devices in obstetrics could decrease the incidence of PNMR, but simultaneous achievement of decrease in caesarean section rate warrants skilful use of these modern devices.

The average term birth weight noted in the study was 2800 gms. This was found to be consistent with the term birth weight reported by Rajan et al 1991 ie 3076 gms.

We hold that term birth weight below 2300 gms should be considered growth retarded & birth weight above 3300 gms be considered macrosomic. In today's practice it is easy to estimate the gestational weight employing USG & arriving at a decision antenatally (Rajan et al 1991). However sonographic prediction of gestational weight is more accurate in preterm pregnancies (Sabbagha 1987, Platt 1987). Our study on birth weight & PNMR should be correlated with sonographic estimation of gestational

age. This will help in determining the obstetric management in a situation of preterm pregnancies. Our observations show that the perinatal salvage for 1600 gms is 71.8% and at 2000 gms it is 88.8%.

Once we know the perinatal salvage in each gestational weight it is easy to decide on the management of high risk pregnancies. Only when the gestational weight is below the critical level one need to continue the pregnancy with intense monitoring. If the estimated weight falls in the safer zone one could easily terminate the pregnancy by employing methods of cervical ripening or wait for spontaneous onset of labour if the maternal condition permits.

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