PERINATOLOGY AS SEEN IN RURAL BENGAL

by

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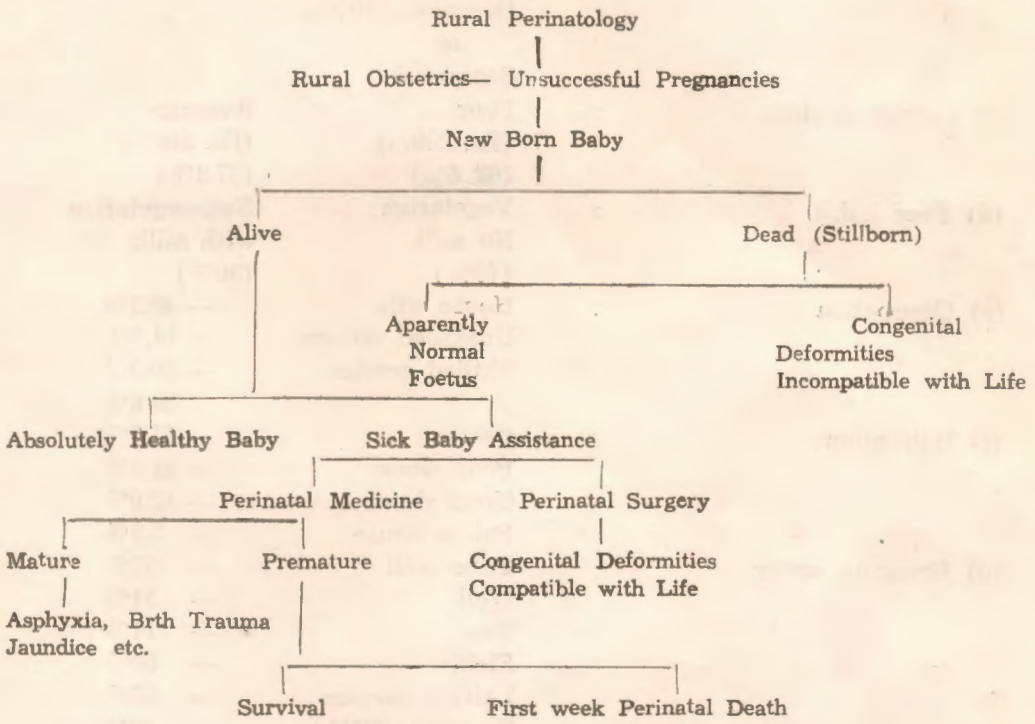
Rural perinatology is reflected at a glance through rural obstetrics as perinatal period in the truest sense extends from 20th week of gestation to the end of first week of life of a new born. Leaving aside the cases of unsuccessful pregnancy like abortion, ectopic or H. mole the outcome of rural obstetrics is a newborn baby which may be alive or dead. When alive it may be absolutely healthy or sick in the perinatal period. Sick babies need the assistance of perinatal medicine or surgery. While some survive with the assistance, others end in first week perinatal death. So all analysis of perinatology are related to rural obstetrics, healthy newborn and perinatal death. Perinatal outcome is entirely dependent on various aspects of rural obstetrics.

Here attempt has been made to enlighten the present position of rural perinatology focussing its limitations and drawbacks. Few possible remedies have also been advocated.

TABLE I



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Results

(A) *Analysis of Rural Obstetrics*:

(i) Total No. of Patients With Age Distribution:

TABLE II

	1981	1982
Teen Aged pregnancy	469 (38.6%)	394 (36%)
Other Age group	745 (61.3%)	700 (63.9%)
Total:	1214	1094

Here 36-38% patients belonged to teen age group and were exposed to all hazzards of teen aged pregnancy.

(ii) Social obstetrics—Various aspects of social obstetrics have been shown in the following Table.

(a) Hindu (66.5%)		Muslim (33.4%)	
(b) Marital status	:	Single—16.2%	
		Married—63.1%	
		Widow—1.2%	(Illegitimate pregnancy 37%)
		Divorced—19.3% or Separated	
(c) Economic class	:	Poor (Rs. 200/-) (62.6%)	Average (Rs. 200/-) (37.3%)
(d) Food habit	:	Vegetarian No milk (70%)	Non-vegetarian with milk (30%)
(e) Occupation	:	House wife	— 49.7%
		Unskilled service	— 14.7%
		Skilled service	— 10.9%
			24.6%
(f) Habitation	:	Bastee	— 51.7%
		Poor slums	— 31.9%
		Good slums	— 12.9%
		Pakka house	— 3.2%
(g) Drinking water	:	Tube well	— 32%
		Well	— 54%
		Tap	— 14%
		Field	— 60%
		Latrine service	— 30%
		Sanitary (RCA)	— 10%
(h) Health consciousness	:	Not conscious	— 51%
		Partly conscious	— 36%
		Fully conscious	— 12.9%

Obstetrical Performance

(a) Gravidity:

Of all the mother's, 36.6% were primigravida, and 11.8% were grande multipara, while others were 51.4%.

Important pregnancy complication endangering mothers life was eclampsia (11.9%) and that of foetus was preterm labour (23.3%).

	1981	1982	
G_1	442	404	864 (36.6%)
G_2-4	633	555	1188 (51.4%)
G_5 +	139	135	274 (11.8%)
	A.N.C.		
Booked	287	230	517 (22.4%)
Unbooked	927	864	1791 (77.5%)
Total:	1214	1094	2308

(b) Antenal Care:

Only 22.4% mothers had taken A.N.C. while rest 77.5%, the majority, had no medical check up before actual labour.

(c) Pregnancy type: 78.5% pregnancies were absolutely normal while 21.3% cases had obstetrical complications.

(d) Analysis of pregnancy complications: (21.3%).

ABORTIONS — 15.7%
P.E.T. — 9.7%
ECLAMPSIA — 11.9%
PRETERM LABOUR — 23.3%
POSTDATISM — 9.2%
MALPRESENTATIONS — 13%

(e) Analysis of abortions and deliveries.

Deliveries		Abortions	
1981	1982	1981	1982
1176	1084	48	18

(f) 93.5% cases had ended in term labour compared to 4.4% preterm labour and 1.9%, post-term labour respectively in all cases of this study.

C.P.D. — 3.8%
TWINS — 3.2%
BOH — 3.2%
SEVERE ANAEMIA — 1.6%

OTHERS:
APH
IUFD } 4.3%
JAUNDICE

Again approximately 80% cases had normal labour; in 17.3% cases the labour was prolonged and 2.7% cases had some form of 3rd stage complications.

(g) Mode of delivery:

	1981	1982	Total
Normal Delivery	1025 (87.1%)	966 (89.1%)	1991 (88%)
N.D. with episotomy	77 (6.5%)	44 (4.0%)	121 (5.3%)
Forceps delivery	36 (3%)	39 (3.5%)	75 (3.3%)
L.S.C.S.	19 (1.6%)	9 (0.8%)	28 (1.2%)
Breech delivery	18 (1.5%)	26 (2.3%)	44 (2.3%)
Destructive operations	1 (0.08%)	NIL	1 (0.08%)
	1176	1084	2260

Incidence of normal delivery with or without episiotomy is highest and L.S.C.S. rate is rather, low compared to city hospitals because L.S.C.S. is only done when there is a definite indication with possibility of getting healthy living child. Various problems like lac of anaesthetist and open either induction, and lac of immediate expert resuscitation are most important. Thus attempts to deliver an acutely distressed foetus by L.S.C.S. is not done. There is serious social impact on doctors in rural area if somehow the baby dies after abdominal operation.

B. Analysis of New Born Baby.

Year	Male	Female	Total	Living Baby
1981	624	552	1176	1101
1982	567	517	1084	1006
Total (1)	1191 (52.6%)	1069 (47.3%)	2260	2107

(1) The above table shows the different sex ratio of newborn and the total number of livebirths. Male births are more than female births and living babies comprises 93% approximately.

(2) *Average birth weight:*

Weight	1981	1982	Total (%)
Above 4 Kg.	47	36	83 (3.67%)
3.5 to 4 Kg.	209	280	489 (21.6%)
3 to 3.5 Kg.	416	420	836 (36.9%)
2.5 to 3 Kg.	377	240	617 (27.3%)
2 to 2.5 Kg.	85	75	160 (7%)
1 to 2 Kg.	42	33	75 (3.3%)
Total:	1176	1084	2260

This table shows the average birth weight of rural babies. Only 10% babies are less that 2 Kg, whereas nearly 64% babies are between 2.5 to 3.5 Kg. Thus "low birth weight" incidence is definitely lower in rural area inspite of lac of adequate A.N.C. and substandard nutritional and social status of rural mothers. Simple living together with natures contribution may be the cause.

(3) *Congenital Anomalies:*

	1981	1982
Compatible with life	6	11
Incompatible with life	0 + (?) (still borns)	(3 + (?) (still borns)
Total:	6 (0.5%)	14 (1.3%)

Congenital anomalies in newborns varied from 0.5% to 1.3%. Homeopathic medicines or other harbal indegenous preparations cause more teratogenicity and congenital deformities in rural area than well known pharmacopial preparations. Again incidence of congenital anomalies is falacious as post-mortem examination of still born babies are not done resulting in omition of a number of congenital malformations incompatible for life.

All the newborn babies are not healthy. Nearly 15%-20% babies are sick due to minor or major perinatal ailments which may need medical or surgical management. Commonest problem is asphyxia and next one is birth trauma and both of them are due to prolonged labour and last stage interference in hospital after failure to deliver at home. Mucus section, artificial respiration and external cardiac massage, oxygen inhalation etc. could revive some babies. Other ideal resuscitative measures and analeptics are not available always and practically nothing could be done for grossly premature babies, yet low birth weight rural premature babies thrive well compared to babies of well to do mothers of cities.

On the other hand, lifesaving perinatal surgery like gastrostomy for oesophagial atresia, colostomy for lower bowel atresia, circumcission and metotomy for prepusal

and meatal stenosis, operation for meningocele etc. could be done successfully under local or general anaesthesia. Thereafter the babies were transferred to city hospital for subsequent treatment. Besides, minor surgery like operation for polydactility and circumcision specially for muslims are routinely done during perinatal period to avoid the most unhygenic procedure adopted for them afterwards.

Baby feeding is not a problem as rural mothers are more inclined for breast feeding.

(c) *Analysis of Perinatal deaths.*

Total perinatal death varies from 6 to 7% approximately and stillbirths are more common than first week perinatal death.

Prematurity and asphyxia are the commonest causes of first week death while severe infection is peculiarly not common due to natural resistance.

Again intrapartum deaths are more common than I.U.F.D. in stillbirth group. Eclampsia or P.E.T. is the commonest cause of I.U.F.D. Undernutrition and severe anaemia leading to I.U.G.R. comes next. For intrapartum deaths prolonged labour followed by forceful and imperfect attempt for delivery is most important. A rural mother usually attends the hospital in a state of obstetric shock with grossly oedematous vulva. In case of vertex presentation a huge caput may peep through the vulva whereas in case of breech or, shoulder presentation a foot or hand could be seen outside the vulva with marks of various tractions on them. Ultimately a fresh stillborn is delivered there.

	1981	1982
Still births	50 (66.6%)	63 (80.7%)
1st week deaths	25 (33.3%)	15 (19.2%)
Total Perinatal Death	75 (6.43%)	78 (7.24%)

Causes of perinatal deaths are as follows according to importance.

	Stillbirth	First week deaths
I.U.F.D.	1. Eclampsia/PET	1. Prematurity
	2. I.U.G.R.	2. Asphyxia
	3. Idiopathic	3. Birth trauma
	4. Congenital Anomalies	4. Congenital defects
		5. Idiopathic
		6. Infection
Intrapartum deaths	1. Prolonged labour	
	2. Forceful and imperfect attempts for delivery	

Discussions

Poor perinatal picture in rural area may be due to following reasons:

1. Ignorance and superstitions about pregnancy and labour.
2. Substandard socioeconomic condition.
3. Early marriage and multiple marriage, specially in muslims.
4. Failure to attend the hospital for A.N.C. or for delivery in time. Most cases reach the hospital after crossing the safety margin.
5. Some routine test like blood grouping and Rh-typing, blood sugar estimation, V.D.R.L. test etc. are not always available. This may account for a number of so-called "Idiopathic perinatal death."
6. Failure to provide adequate obstetric care including timely L.U.C.S. and blood transfusion in rural hospitals. Now-a-days unpredictable prolonged and frequent power cuts and lac of any generator in each rural hospital are beyond criticism. We have become used to work in candle light, hand-torch and kerosine lamp. Besides lac of adequate medical and para-medical staff compared to excessive rush is also important.
7. Failure to provide intensive care to premature and asphyxiated babies due to various reasons.

Few remedies which can bring some change are as follows:

1. Mass education is most important. Mothers should appreciate properly the importance of this vital physiology. They must consult medico-social workers or registered physicians for any problem and avoid all homespathic, herbal or alike preparation.

Home delivery should be avoided by untrained dais. There should be compulsory antenatal check up in each pregnancy.

Post confinement cleanliness for both mother and baby is equally important. Proper baby feeding must be tought.

2. Radical improvement of socio-economic condition is impossible. But avoiding early marriage and family limitation are not impossible.
3. Door to door visit by medico-social workers to ensure compulsory A.N.C. and detect out "High-Risk Mothers" for early hospital admission will be very effective. Flying squad facilities should also be available.
4. Rural hospitals must be well-equipped for round the clock obstetric operations. There should be at least one incubator.

Hospital ambulance must be "in order" all the time.

5. Practical training programme in perinatal medicine must be compulsory for all medical officers, nurses and medio-social workers whom are posted in rural hospital.