

Obstetric Problems in Rural Hospital: An Analytical Study

Pradip Sambarey*, Sujit Nikam**

Author's Affiliation: *Professor & Head, **Assistant Professor, Obst & Gynaec, SRJR GMC, Ambejogai, Beed, Maharashtra, India.

Reprint Request: Dr. Pradip Sambarey, MD PhD, Professor & HOD, Obst & Gynaec, SRJR GMC, Ambejogai, Beed, Maharashtra, India.

E-mail: drsambarey@yahoo.co.in

Abstract

The analysis of obstetric cases in 2013 in a rural medical college proves that there is a significant difference in rural and urban obstetrics. Data of over 10000 deliveries in this hospital in one year shows that maternal mortality in rural area is not high as it was thought. Maternal morbidity is slightly more due to various reasons. Anaemia was common in rural women. Referrals are more but number of women coming to labour room is significantly higher than prelabour admissions. Antenatal care is good but women are reluctant for admission. C S rate is around 25% mostly due to lesser number of trials. Meconium stained liquor and previous scar are commonest indication for C S. There were 250 stillbirths and 256 neonatal deaths.

Keywords: Rural obstetrics; Maternal mortality.

Introduction

The obstetric practice and experience in rural area is somewhat different as other social and family problems dominate the obstetric problems. In India though there is tremendous improvement in obstetric and neonatal services through various Govt. programmes and NGO services, the attitude, behavior and some non-obstetric problems still exist and need some positive change and improvement.

Aims

This study aims to focus on:

1. Clinical analysis of labour room data of one year [2013].
2. To find various social and family problems and other hospital related difficulties.
3. To study outcome of over 10000 deliveries including maternal morbidity and neonatal mortality.

4. To discuss some methods to overcome various rural oriented problems.

The aim was not to compare our data and problems with other hospitals but to focus on our area related issues.

Materials and Methods

We analysed all women [10354] coming to labour room either directly from home or referred from some hospital or were preadmitted with some problem requiring induction or C S or had spontaneous delivery. Various social, family and hospital related problems which had some contribution to the obstetric outcome were also studied. The delivery pattern, caesarean section indications, antenatal, intranatal and postnatal complications were analysed. Baby weight, maturity and Apgar were noted. Some improvements are suggested to improve the outcome.

Observations, Analysis and Discussion

After studying 10354 deliveries in one year in this hospital, following observations are made and are analysed. There were 10354 pregnant women admitted in labour room with or without significant obstetric problem. The mode of admission, labour pattern, caesarean section [if required] indication are shown in table no I.

Most women [7844] came directly while 1360 were referred and only 1150 were preadmitted.

In spite of good antenatal registration, follow up, counseling most women were reluctant for prelabour admission. Family problems, transport problems, small children at home were contributory factors for this attitude. Only 11.10 % women who had either preeclampsia, severe IUGR, severe anaemia, polyhydramnios were admitted before labour. Even cases of previous CS, breech, CPD, precious pregnancies etc also came directly in labour.

However most normal women[4366] without any obstetric or medical problem came directly in labour. Out of 10354 case 7860

women delivered vaginally and 2494 women delivered by section [24.08%]. The commonest obstetric problem in our cases was foetal distress [meconium stained liquor - 577] and previous C S section[1172] [Table I]. Rest indications are more or less similar to other hospitals.[2]. But previous caesarean section is the most common indication in our set up.[3].

Hypertensive disorders [1044], prolonged and obstructed labour[244], abnormal presentations and positions [276] were other common cases. Most of those cases either came directly or were referred from other hospitals. Also most women were diagnosed to have those problem only after their admission in labour room. Some registered cases were prediagnosed to have pre eclampsia, abnormal lie or presentation, APH [P P], CPD and prev. scar and were counselled for admission. However they were reluctant and did not get admitted.

Anaemia [Hb 8 gms or less] was the most common [65 %] medical problem in pregnancy in both registered [45 %] and unregistered [75 %] women. Even though most antenatal women received oral iron supplementation poor compliance, infrequent antenatal visits,

Table I: Total Deliveries - 10354

SN	Admitted As	Direct Adm. [7844]		Referred [1360]		Pre-Admitted [1150]		Total 10354	
		N D	C S	N D	C S	N D	C S	N D	C S
1	Normal uncomplicated	4366				307		4673	
2	Previous C S	390	952	160	115	165	105	715	1172
3	Foetal distress	57	492	192	73	-----	12	249	577
4	Preeclampsia & eclampsia	628	48	212	15	120	21	960	84
5	CPD	72	86	92	16	82	28	246	130
6	A P H	180	32	92	12	52	28	324	72
Malpresentations									
7	Compound pre. Cord pr. Twins	50	83	59	20	49	15	158	118
8	Prolonged labour PROM>12 hrs.	27	82	112	21	-----	2	139	105
9	Oligohydromnio IUGR, Precious pregnancy	120	92	126	22	150	8	396	122
10	Failure to induce /progress & other indications	-----	87	-----	21	-----	6	-----	114s
		5890	1954	1045	315	925	225	7860	2494

Table II

S N	Problem	Cases	%
1	Poor socioeconomic condition of the family	2100	20.3
2	Education 4 th standard or less or nil	4800	46.4
3	Lack of awareness about health facilities	1250	12
4	Crowded family, poor/inadequate housing, sanitation problem	1280	12.4
5	Dietary problems, eating habits, faulty cooking,	1320	12.8
6	Transport problems	260	2.5
7	Uncooperative attitude of family members including spouse.	490	4.73
8	Other family related issues, customs, religion etc.	165	1.6

faulty dietary and cooking habits, poor socioeconomic status, overcrowded families, gastric intolerance, worm infestation, recurrent urinary infection were additional contributory factors.[1] However severe anaemia, failure and other complications and mortality due to anaemia was not found. A total of 122 women were given blood transfusion before labour. Wound complications and puerperal sepsis were observed complications in anaemic women.

Severe preeclampsia, eclampsia, antepartum hge., thyroid problems, blood disorders were other medical and obstetric complications. [Table no II{4}] Placental abruption, ascitis ,hepatic dysfunction ,hepatic rupture, intra abdominal bleeding ,pulmonary oedema and acute renal failure are all clinical manifestations associated with preeclampsia-eclampsia that can result in maternal deaths. About 40% of them were prediagnosed. We had only 2 maternal deaths in one year, both due to severe complications of eclampsia. In leading causes of maternal deaths are haemorrhage, infection, eclampsia and obstructed labour in most countries.[1,3].

Infrequent antenatal visits, lack of communication between pregnant women and examining doctors most probably due to heavy rush in OPD were problems in rural area.As stated before fetal distress[thick meconum stained liquor] and previous CS were common indications for caesarean section in our hospital. lack of constant intrapartum fetal monitoring due to less residents and overcrowding in labour room [30 deliveries and 6-8 C S per day with only 3-4 residents round the clock] is a serious administrative

problem in most rural medical colleges. Non-availability of modern gazets for fetomaternal monitoring in labour and infrastructure problem add to the neonatal morbidity.

Overall maternal morbidity was seen in 225 cases. Puerperal sepsis [107], wound gape [127] lactation failure [38], DVT[4], subinvolution[12] were common maternal morbidities in our hospital. Two cases of severe eclampsia with renal failure and two with intracranial haemorrhage were referred to better equipped hospitals for further management. Availability of CT scan was in most rural areas is of great help in most cases of eclampsia complications.

Existing anaemia, hypertensive disorders, skin infection, previous thick hypertrophied scar,prolonged ROM, multiple PV examinations, frequent catheterization, multiparity, late referral were some contributory factors. Morbidity was more in women coming to labour room directly than in preadmitted women [14% versus 6%]. Lack of infrastructure & disposables, less available beds and staff and overcrowding in labour room were other problems in addition to various family problems and poor economic status. Increase in number of deliveries in last 5 years [6048 in 2008 and 10354 in 2013] without much increase in staff is also a fact to be considered. In addition residents are also busy in making the entries in computers.

We had 250 stillbirths in 2013 and mostly they were due severe preeclampsia, eclampsia, abruption, cord accidents and congenital malformations. They were more common in referred cases from other hospitals and /or

coming directly with intrauterine deaths. The stillbirth rate [25/1000 births] is slightly higher in our area than National figure [7/1000] due to above described reasons. In India the common causes for stillbirths are birth asphyxia and trauma [30%], abruption and preeclampsia [30%], congenital malformations [15%] and others [25%].[1]

There were 256 neonatal deaths in 2013 [10354 deliveries]. Prematurity, severe IUGR, severe birth asphyxia, meconium aspiration were common causes in addition to some cases of neonatal sepsis. Lesser number of available neonatologists, overcrowding in NICU was also a factor. The neonatal death rate in India is 28/1000 for rural and 15/1000 in urban area.[1]

The non obstetric problems existing in our area were also studied. The common problems [Table II] were mostly social problems like other areas[1], e.g. poor socioeconomic status, lack of education and awareness, dietary problems, transport problems, lack of family support and other family and religion related issues and some hospital related problems. Similarly other factors like environmental factor, customs and habits, ignorance, inadequate utilization of existing services, lack of communication and referral facilities also play a role in rural area.[2] Those social obstetric problems in India differs from those in developed countries.[1]

There were combinations of factors in many cases.

Some more observations were noted:

1. Many women [67] had come for termination of pregnancy in second trimester but were advised to continue pregnancy.
2. There were 42 cases of congenital anomalies diagnosed before 20 weeks and were terminated, but 10 cases came late and were allowed to go in spontaneous labour.
3. Postpartum haemorrhage was a less observed complication [22 cases] and

only 2 required obstetric hysterectomy. Availability of blood was not a problem and there was no maternal death.

4. Rupture uterus[2], inversion of uterus[1], DIC[3], renal failure[2] were less observed morbidities.

The overall analysis shows that the rural obstetrics differs from urban area obstetrics in mode of presentation, more social and family related problems, attitude of patients and relatives, reluctance for prelabour admission, hospital related problems like staff, infrastructure, monitoring facilities and constant overcrowded labour room. Less trials for scarred uterus is a significant observation. But the outcome does not differ much as maternal morbidity and perinatal mortality was not more than that in urban and more equipped hospitals. DDI {Decision to delivery interval} is an important and integral part of critical conduct interval in acutely compromised fetus. Therefore maternity care units must possess full operational strength to deliver appropriate care in acute emergencies. [5]

Definitely quality of obstetric care in rural area requires more improvement in many aspects as the quantity of obstetric work in rural area is tremendous and extensive as against in urban hospitals. The number of hospital deliveries is on rise and needs positive attitude, support and consideration from Govt. and other agencies to improve the outcome.

Every minute of every day, a woman dies somewhere as a result of pregnancy or childbirth. This means 1400 women die every day, and for each woman who dies, 50-100 suffer from long-term illnesses or disabilities.[7] Safe motherhood initiative is a global effort and is designed to operate through Government and non-government agencies, other groups and individuals. The aim is to improve women health through social, community and economic interventions.[2] The main component of safe motherhood is the essential obstetric care i.e. early registration, minimum 4 antenatal visits, strengthen referral system,

immunization and supplementary iron-folic acid therapy.[2] Obstetric emergencies may develop in low risk set up, so all doctors and nurses who participate in the care of pregnant women must be prepared to deal with such situations.[6]

Advocacy materials for maternal health and safe motherhood at different levels of care can include simple posters, folklore and plays at the community level, radio and television messages, and so forth. In addition, educational activities to update health professionals, recommendations and prepared research protocols, and audits of maternal deaths with defined clinical management are essential

Suggestions and scope to improve obstetric services in rural tertiary hospitals:

1. Need for improvement in infrastructure, existing facilities, transport.
2. Increase in manpower at every level.
3. Uninterrupted power and water supply.
4. Regular and constant supply of disposables, suture material, IV fluids, antibiotics and oxygen.
5. Availability of NST machines, sonography and neonatal resuscitation equipments.
6. All life saving drugs in adequate quantity.
7. Use of audiovisuals outside labour room and OT.
8. Blood and blood components made available in all hospitals.
9. Change in attitude of doctors and other staff regarding trial of labour, oxytocics use, instrumental deliveries rather than liberal C S. Only proper selection of cases for trial is required.
10. Antenatal screening should be

meticulous, risk cases identified and managed.

11. Availability of trained obstetric and neonatal residents in labour room is to be assured.
12. Health educational methods in rural population needs to be improved, and coordination with local health agencies should be done. Immunisation, dietary supplementation should be focused more.

The maternal morbidity and perinatal mortality are important health parameters in rural and tertiary hospitals. Improvement in above discussed factors and attitude of health providers and needed patients can make a desired change in women health.

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