



ISSN Print: 2394-7500  
ISSN Online: 2394-5869  
Impact Factor: 5.2  
IJAR 2015; 1(8): 199-201  
www.allresearchjournal.com  
Received: 17-05-2015  
Accepted: 20-06-2015

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## Pregnancy Morbidities- A hospital based study in North-East India

**L. Ranjit Singh, Susmita Bhattacharya, R.K. Praneswari Devi, Mutum Matauleibi Chanu, M.S. Rajlaxmi**

### Abstract

#### Introduction

Maternal mortality is just the tip of the iceberg of the health problems of women. India shares the maximum burden of reproduction related morbidity and mortality of women. This study was done to address the obstetric morbidity and its management to prevent future obstetric complication and reduce the overall economic and social burden of the country.

#### Materials and method

This was a retrospective study conducted at a tertiary care hospital, Regional Institute of Medical Sciences, Imphal, Manipur, India over 18 months from July 2013 to December, 2014.

#### Results

In the study period, the obstetric morbidities were 10.93 per 1000 live-birth whereas maternal mortality was only 4, so Maternal mortality rate was 15.9 per 1,00,000 live birth. Most common complication was scar-dehiscence (31%) followed by PIH (21.2%). Others were peripartum hysterectomy, haematoma, post-partum urinary retention, rupture uterus and septic abortion.

#### Conclusion

Maternal morbidity though not life-threatening in most of the cases should be considered seriously and to be addressed by health promotion and awareness.

**Keywords:** Pregnancy, morbidities, mortality.

### 1. Introduction

Maternal and child health care is one of the basic components of primary health care of Alma Ata declaration. Pregnancy is one of the important events in a woman's life, but many times it can become dangerous to her life, particularly in India and other developing countries, due to the lack of medical care and ignorance [1].

Reproductive morbidity refers to any morbidity, which is a consequence of reproductive behaviour including pregnancy, abortion, childbirth or sexual behaviour. Reproductive morbidity includes obstetric morbidity and it refers to ill health in relation to pregnancy and childbirth. Obstetric morbidity is defined as "morbidity in a woman who has been pregnant (regardless of site or duration of the pregnancy) resulting from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes" [2]. Maternal mortality is just the tip of the iceberg of the health problems of women. Many women do not die of causes related to pregnancy but suffer severe morbidities. In developing countries, pregnancy and childbirth related complications are the leading cause of disability among women aged 15-44. The world development report estimated that the burden of disease for these women is due to maternal causes [3].

Social and medical causes are associated with pregnancy complications such as delay in decisions to seek care, delay in accessing and receiving care. Other social causes such as inequality in providing proper nutrition, education, and medical treatment may affect women's health. Malnutrition, infection, early and repeated child bearing and high fertility have an adverse impact on the maternal health condition. Lack of access to health care along with poor quality of the delivery system and its responsiveness to women's needs make women more vulnerable to maternal morbidity. In general, maternal and reproductive morbidity, is an outcome of not just biological factors, but also of women's poverty, powerlessness and lack of control over the resources as well [4]. Women are not participating

majority in terms of access to health care, literacy, information and skill in many developing countries. Around one fifth of the births worldwide, and one fourth of maternal deaths are occurring in India.<sup>4</sup> Maternal mortality as well as life risk of maternal death in India is well above the national average. This shows that India shares the maximum burden of reproduction related morbidity and mortality of women. This problem arises not only from economic but also social and cultural factors as well as inadequate and underutilization of health services<sup>5</sup>. The risk of death associated with pregnancy complications and delivery is relatively high in central India.

Worldwide studies regarding maternal mortalities are of highest importance to reduce the burden of maternal death but studies regarding obstetric morbidities are still sparse. Specially in India which is carrying the highest burden these type of studies are really in dearth. Though few studies are there in central, north and south Indian states, North-east Indian scenario is yet to come in the picture. This study was done to address the obstetric morbidities and its management to prevent future obstetric complication and reduce the overall economic and social burden of the country.

**2. Materials and method**

This was a retrospective study conducted at a tertiary care hospital, Regional institute of Medical Sciences, Imphal, Manipur, India over 18 months from July 2013 to December, 2014. All women who were pregnant, in labour, or who delivered or aborted up to 42 days arriving the institute or came in a life-threatening conditions were included.

Eligibility criteria – women of the study population with Potential life-threatening conditions and those needed extended hospital stay or intensive care unit admission but survived are considered to be having obstetric morbidity.

Eligible women were identified at the time of admission or on visit to ward, labour room, Operation theatre and ICU. Data collection was done in a pre-designed format and was analysed using appropriate statistical tests.

**3. Results**

During 18 months of the study period, total deliveries were 25092 including all vaginal and caesarean section and live birth was 25065. Out of them 274 mothers had fulfilled the eligibility criteria of obstetric morbidities. So, obstetric morbidities were 10.93 per 1000 live-birth whereas maternal mortality was only 4, so Maternal mortality rate was 15.9 per 1,00,000 live birth. Following pregnancy morbidities have been identified.

**4. Scar Dehiscence**

**Table 1:**

	Number	Treatment
Episiotomy wound	83	Secondary suturing
Caesarean wound	2	Conservative
Scar Dehiscence	Number	Treatment
Episiotomy wound	83	Secondary suturing
Caesarean wound	2	Conservative
Total	85 (31%)	

**5. Septic Abortion**

**Table 2:**

Septic abortion	Management
9 (3.3%)	Conservative management

**6. Rupture uterus**

**Table 3:**

Number	Management
7	Total hysterectomy
2	Subtotal hysterectomy
2	Repair
Total	11 (4%)

**7. Peripartum hysterectomy**

**Table 4:**

Indication	Number
Atonic PPH	25
Placenta previa with morbid adherence	8
Rupture uterus	9
Total	42 (15.3%)

**8. Hematoma**

**Table 5:**

Hematoma	Number	Management
Vaginal delivery	32	Exploration and repair
CS	4	Exploration and repair
Total	36 (13.1%)	

**9. Post-delivery retention of urine**

**Table 6:**

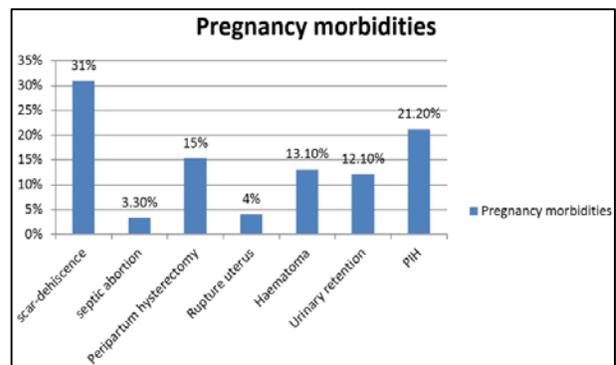
Retention of urine	Number	Management
Vaginal delivery	28	Conservative
CS	5	Conservative
Total	33 (12.1%)	

**10. Pregnancy induced hypertension**

**Table 7:**

PIH	Number
Severe pre-eclampsia	46
Eclampsia	12
Total	58 (21.2%)

Most common complication was scar-dehiscence (31%) followed by PIH (21.2%). Others were peripartum hysterectomy, haematoma, post-partum urinary retention, rupture uterus and septic abortion.

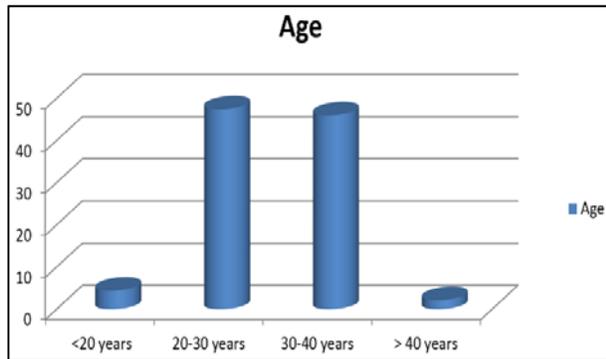


**11. Age distribution**

**Table 8:**

Age in years	Number	Percentage
< 20	12	4.4
20-30	130	47.44
30-40	126	45.98
>40	6	2.18

Table no 8 shows that Morbidities were more in age group of 20-30 years (47.44%) followed by 30-40 years (45.98%).

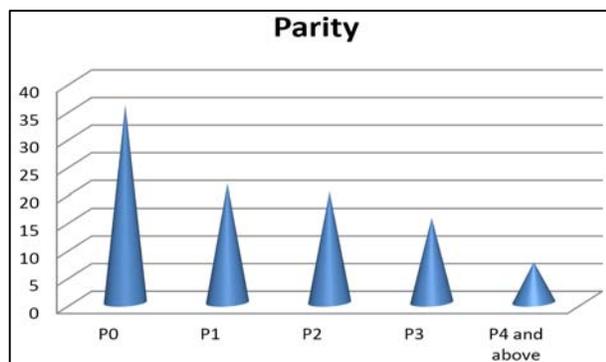


**12. Parity distribution**

**Table 9:**

Parity	Number	Percentage
P 0	98	35.77
P1	59	21.53
P2	55	20.07
P3	42	15.33
P4 and above	20	7.30

Table no 9 shows that morbidities were more in primi and para 1 and 2 than higher parity



**13. Discussion**

In the above study we found obstetric morbidity was 10.93 per 1000 live-birth where as maternal mortality rate was 15.9 per 1lakh live birth. So, obstetric morbidities were 70 times more common than mortality. In a study by Callaghan WM<sup>7</sup> severe maternal morbidity was 50 times more common than maternal death.

Most common complication was scar-dehiscence (31%) followed by PIH (21.2%). Others were peripartum hysterectomy, haematoma, post-partum urinary retention,

rupture uterus and septic abortion. In a study by Singh R *et al.* [8], PIH, urinary tract infection and hyperemesis gravidarum was the most common complication. Study by Pandurang Sontakke<sup>1</sup> in the case of post-delivery problems, around 15 percent of the women from Andhra Pradesh and Madhya Pradesh reported excessive vaginal bleeding and the corresponding figure for Kerala and Bihar was seven percent and 21 percent. However, nearly one – fifth of the women in Bihar and Madhya Pradesh had high fever after delivery. This proportion was relatively less in Andhra Pradesh (6.4%) and Kerala (6.2%).

In our study Morbidities were more in age group of 20-30 years (47.44%) and 30-40 years (45.98%). A study by Pandurang Sontakke<sup>1</sup> and others shows that in Andhra Pradesh, Madhya Pradesh and Bihar, the mean number of problems was higher among women in the younger age group, whereas; in the case of Kerala, the average was highest among women above 34 years of age.

**14. Conclusion**

Maternal morbidity is much higher than mortality. Though not life-threatening in most of the cases, there is impact in the long run in the wellbeing and health-status of the women. Most of the conditions can be addressed through the provision of health promotion and preventive interventions.

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