



The fatal fetal sting of Dengue: experience from a tropical country

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INTRODUCTION

Dengue is a vector borne infectious disease, endemic in the tropical regions, that may be associated with significant maternal and fetal morbidity and mortality. However, literature is sparse on the rate and factors associated with stillbirths in women suffering from dengue.

AIM

In this study, we aimed to explore the frequency of stillbirths in dengue infection in pregnancy during the COVID pandemic. We also studied the effect of severity of the disease on fetal morbidity and mortality.

METHODS

Design: Retrospective review of registers and case records

We reviewed the data of pregnant women admitted for dengue in the Obstetrics & Gynecology department in a tertiary care hospital of Northern India between September and December, 2021.

Data collected included the age, parity, gestation at admission, severity of the maternal disease, other co-morbidities, maternal outcome, obstetrical outcome during the dengue disease and fetal outcome.

RESULTS

- Twenty three pregnant women were admitted to the department between September and December 2021.
- The average age of the women was 26+/-5 years.
- Half of these women were primigravidas (12 out of 25).
- Most women were in the third trimester, while one woman each presented in second trimester and the postpartum period.
- Eleven mothers presented with severe dengue, 11 had dengue with warning signs and only one woman had dengue without warning signs.
- There were 7 maternal deaths. Three mothers died undelivered.
- There were 10 stillbirths of 20 deliveries and 22 babies.
- Majority of the woman delivered preterm.
- There were 2 twin deliveries.
- Of the babies who delivered at term, most were liveborn(6 of 7).
- The stillbirth rate was higher in the severe dengue group, dengue with warning signs and dengue without warning signs were 60%, 36% and nil respectively.

Table 1. This table shows the maternal and disease characteristics.

Demography and disease characteristics	No.
Age	26±5 years
Primigravidas	12(52%)
Twins	2
Gestation at admission	
2 nd trimester	1
3 rd trimester	20
Delivered	1
Comorbidities	5
Hypertensive disorders	3
SLE	1
Polio/ TB	1
Dengue stage	
Dengue fever without warning signs	1
Dengue with warning signs	11
Severe dengue	11
Phase at presentation	
Febrile	16
Critical	6
Brought dead	1

Table 2. Shown below is the high maternal morbidity and mortality

Maternal morbidity and mortality	
Maternal deaths	7(30.4%)
ICU stay	10
Duration of stay	0-30 days

Table 3. The table below illustrates the obstetrical outcomes

Obstetrical outcome	No.
Deliveries	20
Stillbirths	10
Mode of delivery	
Vaginal delivery	17
Cesarean section	3
Undelivered	3
Prematurity	13

CONCLUSIONS

- The stillbirth rate is high in women with dengue in pregnancy, especially in the third trimester.
- The chances of stillbirth escalate with the severity of dengue.
- Maternal mortality is high in women admitted with dengue in pregnancy.
- Public health strategies to prevent dengue should be strengthened to avoid high stillbirth rates and maternal mortality.

Limitations

- The data is limited by the retrospective design and skewed as women with only severe form of dengue would have been admitted.

REFERENCES

Paixão ES, Teixeira MG, Costa MDCN, Rodrigues LC. Dengue during pregnancy and adverse fetal outcomes: a systematic review and meta-analysis. Lancet Infect Dis. 2016 Jul;16(7):857-865. doi: 10.1016/S1473-3099(16)00088-8. Epub 2016 Mar 4. PMID: 26949028.

Paixão ES, Costa MDCN, Teixeira MG, Harron K, de Almeida MF, Barreto ML, Rodrigues LC. Symptomatic dengue infection during pregnancy and the risk of stillbirth in Brazil, 2006-12: a matched case-control study. Lancet Infect Dis. 2017 Sep;17(9):957-964. doi: 10.1016/S1473-3099(17)30366-3. PMID: 28845800; PMCID: PMC6205624.

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