Section: Obstetrics and Gynaecology

Original Research Article

SEVERITY OF DENGUE IN PREGNANCY COMPARED TO NON-PREGNANT WOMEN: A RETROSPECTIVE OBSERVATIONAL STUDY FROM A TERTIARY CARE CENTRE IN CHENNAI

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Received *: 28/03/2026*
Received in revised form *: 17/05/2026*
Accepted *: 03/06/2026*

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DOI: 10.70034/ijmedph.2026.2.512

Source of Support: Nil,
Conflict of Interest: None declared

Int J Med Pub Health
2026; 16 (2); 3093-3099

ABSTRACT

Background: Dengue fever poses a major public health challenge in tropical regions. Pregnancy alters immune and haematological function, potentially worsening dengue severity. Limited retrospective data from urban South India directly compare dengue in pregnant versus non-pregnant women. The objective is to compare clinical features, haematological profiles, WHO severity grades, and maternal-fetal outcomes in reproductive-aged women with dengue at a tertiary hospital in Chennai.

Materials and Methods: This retrospective observational study (October 2014–October 2017) enrolled 455 serologically confirmed dengue cases from medical records: 38 pregnant (Group A) and 417 age-matched non-pregnant women (Group B) aged 15–45 years. The 2009 WHO classification was applied. Haematological and clinical parameters were systematically recorded from case files and compared.

Results: Severe dengue was significantly more frequent in pregnant women (28.9%) than non-pregnant controls (10.8%; p=0.002). Mean nadir platelet count was markedly lower in the pregnant group (39,200 ± 11,800/µL vs. 63,500 ± 17,400/µL; p<0.001). Severe thrombocytopenia (<50,000/µL) occurred in 42.1% of pregnant cases versus 22.5% of controls (p=0.008). Pleural effusion and haemorrhagic manifestations were significantly more prevalent among pregnant patients. Adverse fetal outcomes included preterm labour (21.1%), fetal distress (13.2%), low birth weight (15.8%), second-trimester intrauterine deaths (n=4, 10.5%) and first-trimester medical termination of pregnancy (n=1, 2.6%). Two maternal deaths occurred in the pregnant group (5.3%). Three deaths occurred in the non-pregnant group (0.7%).

Conclusion: Dengue in pregnancy carries a significantly higher risk of severe disease, haematological abnormalities, and adverse maternal-fetal outcomes compared to non-pregnant women, including maternal mortality. Early recognition, close monitoring, and multidisciplinary management are essential for pregnant dengue patients.

Keywords: Dengue fever; pregnancy; dengue haemorrhagic fever; thrombocytopenia; maternal outcome; fetal outcome; maternal mortality.

INTRODUCTION

Dengue virus infection, caused by one of four serologically distinct serotypes (DENV-1 through DENV-4) and transmitted primarily through the bite of Aedes aegypti mosquitoes, has emerged as the most rapidly spreading vector-borne viral disease of the twenty-first century. The World Health Organization estimates that between 100 and 400 million dengue infections occur annually across more

than 125 endemic countries, causing a global burden of approximately 390 million infections per year, of which nearly 96 million result in clinically apparent illness.[1,2] South and Southeast Asia remain disproportionately affected, with India contributing a substantial proportion of global dengue morbidity. Within the country, the urban centre of Chennai in Tamil Nadu experiences recurring seasonal outbreaks driven by favourable climatic conditions and dense Aedes vector populations. Pregnancy represents a state of carefully orchestrated immunological, cardiovascular, and haematological adaptation. Immune tolerance of the semi-allogeneic fetus necessitates a shift from the Th1-dominant antiviral immune profile toward a Th2-biased environment, which may impair the type-I interferon-mediated early containment of dengue viraemia.[3] Concurrently, the physiological expansion of plasma volume by 40–50%, relative haemodilution, reduced oncotic pressure, and hormonally mediated capillary permeability together create a haemodynamic milieu that could amplify the capillary leak characteristic of severe dengue. These overlapping pathophysiological mechanisms suggest that pregnant women may be inherently predisposed to more severe dengue outcomes than their non-pregnant peers.

Several studies from South and Southeast Asia have examined dengue in the context of pregnancy or lack a matched non-pregnant comparator group.[5-7] A case series from Sri Lanka by Waduge et al. documented frequent severe thrombocytopenia and haemorrhagic complications in pregnant dengue patients, while a cohort from Malaysia by Ismail et al. noted a significantly lower nadir platelet count and prolonged recovery compared to non-pregnant women.[5,6] Carles et al. in French Guiana and Basurko et al. reported higher rates of plasma leakage and maternal haemorrhage in dengue-complicated pregnancies.[8,9] Pregnancy reviews and meta-analyses have consistently found that dengue in pregnancy is associated with elevated risks of preterm birth, fetal loss, and low birth weight compared to dengue-unaffected pregnancies.[10,11]

Despite this growing body of evidence, retrospective comparative data from an urban Chennai tertiary care setting remain scarce. The 2009 WHO dengue classification, which stratifies cases into dengue without warning signs, dengue with warning signs, and severe dengue, provides a validated and internationally comparable framework for severity assessment.[12] Applying this framework retrospectively to a cohort of pregnant women alongside a matched non-pregnant control group offers the opportunity to generate robust local data that can inform clinical protocols, triage decisions, and counselling practices.

This study was therefore undertaken with the primary objective of comparing the severity of dengue infection between pregnant and non-pregnant women of reproductive age (15–45 years) at Vijaya Hospital, Chennai, using the 2009 WHO classification criteria. Secondary objectives included comparison of haematological parameters, identification of predictors of severe dengue in pregnancy, and documentation of maternal and fetal outcomes in the affected cohort, including maternal mortality.

MATERIALS AND METHODS

Study Design and Setting: This was a retrospective observational study conducted over a period of three years, from October 2014 to October 2017, at Vijaya Hospital, Chennai, Tamil Nadu, India. Vijaya Hospital is a 340-bed accredited tertiary care institution with dedicated obstetric and general medical wards, serving an exclusively urban population across Chennai. The hospital receives a significant volume of dengue admissions during seasonal outbreak periods, providing an appropriate setting for this study.

Study Population: Two parallel groups were identified from hospital medical records during the study period. Group A comprised pregnant women of any gestational age who were admitted with serologically confirmed dengue infection (n=38). Group B comprised non-pregnant women of reproductive age (15–45 years) admitted with serologically confirmed dengue infection during the same period (n=417). Both groups were identified concurrently from the respective ward admission logs.

Sample Size: A total of 455 patients with complete data were included in the final analysis, comprising 38 pregnant women and 417 non-pregnant women of reproductive age. This represented all eligible patients with confirmed dengue during the study period who met inclusion criteria.

Inclusion Criteria

1. **Group A:** pregnant women of any gestational age with confirmed dengue infection admitted to the obstetric unit during the study period.
2. **Group B:** non-pregnant women aged 15–45 years with confirmed dengue infection admitted to the general medical ward during the study period. Dengue was confirmed by NS1 antigen positivity and/or dengue-specific IgM/IgG antibody positivity by enzyme-linked immunosorbent assay (ELISA).

Exclusion Criteria

Patients in either group were excluded if they had:

1. Known chronic liver disease or pre-existing coagulopathy
2. Autoimmune thrombocytopenic purpura
3. Haematological malignancy
4. Confirmed HIV, hepatitis B, or hepatitis C co-infection
5. Concurrent bacteraemia confirmed by blood culture
6. Incomplete medical records.

Data Collection: Data were extracted from hospital medical records using a structured data collection proforma.

The following variables were recorded:

1. Demographic details (age, parity, gestational age)
2. Date of fever onset and symptom profile
3. Clinical findings on examination (temperature, pulse rate, blood pressure, presence of rash, hepatomegaly, signs of fluid accumulation)
4. Results of standardized investigations.

Laboratory investigations included complete blood count with differential and platelet count. No liver enzyme, haemoglobin nadir, or haematocrit data were available for analysis. Chest radiography and abdominal ultrasonography were performed in all patients to detect pleural effusion, ascites, or hepatomegaly.

Dengue Classification

All dengue cases were classified according to the 2009 WHO dengue classification into three categories:

Dengue without warning signs: acute febrile illness with two or more of the following: nausea or vomiting, skin rash, aches and pains, leukopenia, or any warning sign.

Dengue with warning signs: dengue plus any of the following: abdominal pain or tenderness, persistent vomiting, clinical fluid accumulation (ascites or pleural effusion), mucosal bleed, lethargy or restlessness, liver enlargement greater than 2 cm, or laboratory evidence of rapid increase in haematocrit concurrent with rapid decrease in platelet count.

Severe dengue: dengue with severe plasma leakage leading to shock or fluid accumulation causing respiratory distress; severe bleeding; or severe organ involvement defined as hepatitis (AST or ALT ≥1000 IU/L), impaired consciousness, or cardiac or other significant organ involvement.[12]

Outcome Measures: The primary outcome was the distribution of dengue severity categories across the two groups. Secondary outcomes included: nadir platelet count, duration of hospital stay, requirement for platelet transfusion, intensive care unit (ICU) admission, and maternal mortality. For pregnant women, obstetric and fetal outcomes were additionally recorded: gestational age at delivery, mode of delivery, birth weight, Apgar scores, occurrence of preterm labour, intrauterine fetal distress, placental abruption, second-trimester intrauterine deaths, first-trimester medical termination of pregnancy, and neonatal ICU admission. Data on vertical transmission were not available and were not included.

Statistical Analysis: Microsoft Excel 2016 was used to enter the data, and IBM SPSS Statistics version 20.0 (IBM Corp., Armonk, NY, USA) was used for analysis. Continuous variables were compared using the independent samples t-test and presented as mean ± standard deviation (SD). Frequency and percentage were used to indicate categorical variables, and the chi-square test or Fisher's exact test were used as necessary for comparison. To find independent predictors of severe dengue in pregnant women, multivariate logistic regression analysis was used. Variables with $p < 0.1$ on univariate analysis were added to the model. A two-tailed p-value was deemed statistically significant if it was less than 0.05.

Ethical Considerations: The study protocol was reviewed and approved by the Institutional Ethics Committee. Due to the retrospective design, individual informed consent was waived. Patient data were anonymized and de-identified prior to analysis. The study was conducted in full compliance with the Declaration of Helsinki and applicable Good Clinical Practice guidelines for retrospective research.

RESULTS

Baseline Characteristics: A total of 455 patients were enrolled over the three-year study period: 38 pregnant women (Group A) and 417 non-pregnant women (Group B). The two groups were comparable for age (Group A mean: 26.6 ± 4.2 years; Group B mean: 27.3 ± 5.4 years; $p = 0.38$). Among pregnant women, 9 (23.7%) were in the first trimester, 14 (36.8%) in the second trimester, and 15 (39.5%) in the third trimester. The mean gestational age at presentation was 27.1 ± 7.4 weeks. Primigravidae constituted 25 (65.8%) of the pregnant cohort. The mean duration of fever before hospitalisation was 3.9 ± 1.3 days in Group A and 3.6 ± 1.4 days in Group B ($p = 0.18$). Baseline characteristics are presented in [Table 1].

Table 1: Baseline Demographic and Clinical Characteristics of Study Participants

Characteristic	Group A: Pregnant (n=38)	Group B: Non-Pregnant (n=417)	p-value
Mean Age (years)	26.6 ± 4.2	27.3 ± 5.4	0.38
Primigravida / Nulliparous, n (%)	25 (65.8%)	Not applicable	---
First Trimester (<14 weeks), n (%)	9 (23.7%)	---	---
Second Trimester (14–27 weeks), n (%)	14 (36.8%)	---	---
Third Trimester (≥28 weeks), n (%)	15 (39.5%)	---	---
Mean Gestational Age (weeks)	27.1 ± 7.4	---	---
Duration of Fever before Admission (days)	3.9 ± 1.3	3.6 ± 1.4	0.18
NS1 Antigen Positive, n (%)	31 (81.6%)	322 (77.2%)	0.52
IgM Antibody Positive, n (%)	33 (86.8%)	348 (83.5%)	0.59
Both NS1 and IgM Positive, n (%)	26 (68.4%)	258 (61.9%)	0.43

Values are expressed as mean ± standard deviation (SD) or number (percentage). Groups were comparable at baseline ($p > 0.05$ for all shared parameters).

Clinical Presentation: Fever was universal in all 455 patients. Myalgia (73.7% vs. 76.5%; $p = 0.68$), headache (68.4% vs. 70.3%; $p = 0.81$), retro-orbital pain (44.7% vs. 48.2%; $p = 0.67$), and skin rash (47.4% vs. 51.6%; $p = 0.61$) were common in both groups without statistically significant difference.

Abdominal pain was significantly more frequent in pregnant women (60.5% vs. 39.8%; p = 0.01), as were persistent vomiting (55.3% vs. 32.9%; p = 0.005) and haemorrhagic manifestations (31.6% vs. 14.1%; p = 0.004). Pleural effusion was detected in 39.5% of pregnant versus 19.2% of non-pregnant women (p = 0.003). The full profile of clinical features is presented in Table 2. No tourniquet test was performed.

Table 2: Comparison of Clinical Features in Pregnant and Non-Pregnant Dengue Patients

Clinical Feature	Group A n=38 (%)	Group B n=417 (%)	p-value
Fever (universal)	38 (100%)	417 (100%)	1.00
Myalgia	28 (73.7%)	319 (76.5%)	0.68
Headache	26 (68.4%)	293 (70.3%)	0.81
Retro-orbital Pain	17 (44.7%)	201 (48.2%)	0.67
Skin Rash	18 (47.4%)	215 (51.6%)	0.61
Abdominal Pain	23 (60.5%)	166 (39.8%)	0.01
Persistent Vomiting	21 (55.3%)	137 (32.9%)	0.005
Mucosal Bleeding	14 (36.8%)	87 (20.9%)	0.02
Haemorrhagic Manifestations	12 (31.6%)	59 (14.1%)	0.004
Hepatomegaly (>2 cm below costal margin)	13 (34.2%)	78 (18.7%)	0.02
Pleural Effusion	15 (39.5%)	80 (19.2%)	0.003
Ascites	8 (21.1%)	52 (12.5%)	0.12
Shock on Admission	3 (7.9%)	15 (3.6%)	0.18

Statistically significant difference (p < 0.05). Values are number (percentage).

Dengue Severity Classification

Applying the 2009 WHO dengue classification, among pregnant women: 12 (31.6%) were classified as dengue without warning signs, 15 (39.5%) as dengue with warning signs, and 11 (28.9%) as severe dengue. In the non-pregnant group: 241 (57.8%) had dengue without warning signs, 131 (31.4%) dengue with warning signs, and 45 (10.8%) severe dengue. The proportion with severe dengue was significantly higher in the pregnant group (28.9% vs. 10.8%; p = 0.002). These findings are summarised in [Table 3].

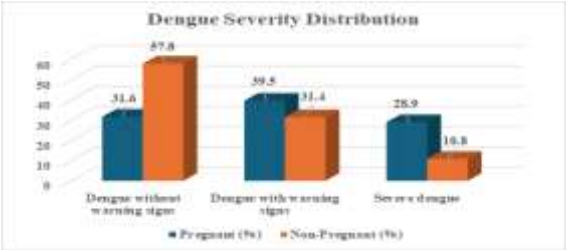

Figure 1: Distribution of WHO 2009 Dengue Severity Categories in Pregnant vs. Non-Pregnant Women

Severe dengue: 28.9% vs. 10.8%; p = 0.002 (significant)

Table 3: Dengue Severity Classification and Haematological Parameters

Parameter	Group A: Pregnant (n=38)	Group B: Non-Pregnant (n=417)	p-value
WHO 2009 Severity Category			
Dengue without Warning Signs, n (%)	12 (31.6%)	241 (57.8%)	0.002
Dengue with Warning Signs, n (%)	15 (39.5%)	131 (31.4%)	0.29
Severe Dengue, n (%)	11 (28.9%)	45 (10.8%)	0.002
Haematological Parameters			
Nadir Platelet Count (×10³/μL)	39.2 ± 11.8	63.5 ± 17.4	<0.001
Platelet Count <50,000/μL, n (%)	16 (42.1%)	94 (22.5%)	0.008
Platelet Count <20,000/μL, n (%)	5 (13.2%)	21 (5.0%)	0.05
Treatment and Outcome			
Platelet Transfusion Required, n (%)	9 (23.7%)	35 (8.4%)	0.002
ICU Admission, n (%)	4 (10.5%)	14 (3.4%)	0.06
Mean Duration of Hospital Stay (days)	7.0 ± 2.2	5.3 ± 1.7	<0.001
Maternal Deaths (Group A)/ Deaths (Group B), n (%)	2 (5.3%)	3 (0.7%)	0.02

Statistically significant (p < 0.05). Values are mean ± SD or number (%).

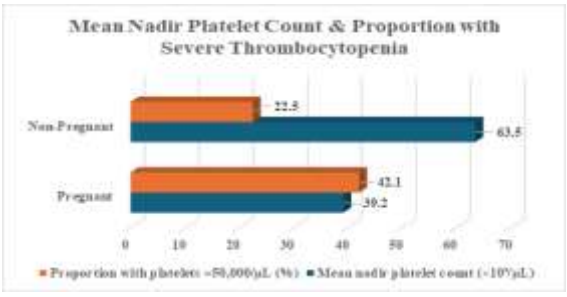

Figure 2: Haematological Severity: Platelet Nadir and Thrombocytopenia in Pregnant vs. Non-Pregnant Dengue Patients

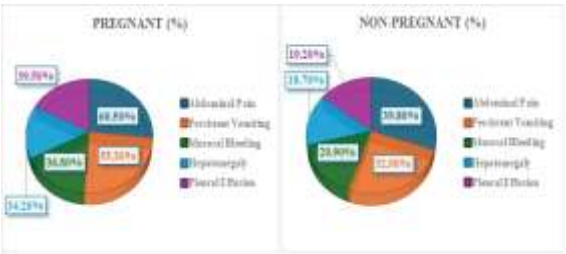

Figure 3: Proportion of Dengue Warning Signs in Pregnant vs. Non-Pregnant Women

Note: Percentages exceed 100% because patients can have multiple warning signs.

Maternal and Fetal Outcomes: Among the 38 pregnant women, adverse obstetric or neonatal outcomes were common. Preterm labour occurred in 8 (21.1%) patients. Fetal distress necessitating operative intervention was recorded in 5 (13.2%) cases. Caesarean delivery was performed in 14 (36.8%) women. Low birth weight (<2.5 kg) was documented in 6 of 38 delivered neonates (15.8%). One case of placental abruption was observed. There were 4 second-trimester intrauterine fetal deaths (10.5%) and 1 first-trimester medical termination of pregnancy. Nine neonates (23.7%) required NICU admission. One neonatal death occurred in the context of severe dengue and extreme prematurity (28 weeks gestation). Two maternal deaths occurred in the pregnant group (5.3%). Three deaths occurred in the non-pregnant group (0.7%). Outcomes are detailed in [Table 4].

Table 4: Maternal and Fetal Outcomes in Pregnant Dengue Women (Group A, n=38)

Outcome Measure	n (%)
Preterm Labour (<37 completed weeks)	8 (21.1%)
Fetal Distress Requiring Operative Delivery	5 (13.2%)
Placental Abruption	1 (2.6%)
Caesarean Section, n (%)	14 (36.8%)
Normal Vaginal Delivery, n (%)	16 (42.1%)
Dengue During Intrapartum Period, n (%)	8 (21.1%)
Mean Birth Weight (kg)	2.73 ± 0.46
Low Birth Weight (<2.5 kg), n (%)	6/38 (15.8%)
Apgar Score <7 at 5 minutes, n (%)	5/38 (13.2%)
Second-Trimester Intrauterine Fetal Death, n (%)	4 (10.5%)
First-Trimester Medical Termination of Pregnancy, n (%)	1(2.6%)
Neonatal ICU (NICU) Admission, n (%)	9/38 (23.7%)
Neonatal Death, n (%)	1/38 (2.6%)
Overall Adverse Fetal/Obstetric Outcome, n (%)	13 (34.2%)
Maternal ICU Admission, n (%)	4 (10.5%)
Maternal Death, n (%)	2 (5.3%)

Hospital Course and Predictors of Severe Dengue: Platelet transfusion was required significantly more often in pregnant women (23.7% vs. 8.4%; p = 0.002). Mean hospital stay was longer in the pregnant group (7.0 ± 2.2 days vs. 5.3 ± 1.7 days; p < 0.001). ICU admission was required in 4 pregnant (10.5%) versus 14 non-pregnant (3.4%) patients (p = 0.06). On multivariate logistic regression, third trimester presentation (OR 3.91; 95% CI 1.45–10.55; p = 0.007), platelet count <50,000/µL (OR 5.31; 95% CI 1.95–14.46; p = 0.001), pleural effusion (OR 2.98; 95% CI 1.07–8.31; p = 0.038), and haemorrhagic manifestation (OR 3.21; 95% CI 1.12–9.20; p = 0.030) were independent predictors of severe dengue in pregnant women [Table 5].

Table 5: Multivariate Logistic Regression: Independent Predictors of Severe Dengue in Pregnant Women (n=38)

Variable	Adjusted OR	95% CI	p-value	Significance
Third Trimester Gestation	3.91	1.45 – 10.55	0.007	Significant
Platelet Count <50,000/µL	5.31	1.95 – 14.46	0.001	Significant
Pleural Effusion on Imaging	2.98	1.07 – 8.31	0.038	Significant
Haemorrhagic Manifestation	3.21	1.12 – 9.20	0.030	Significant
Persistent Vomiting	2.11	0.79 – 5.62	0.135	Not significant

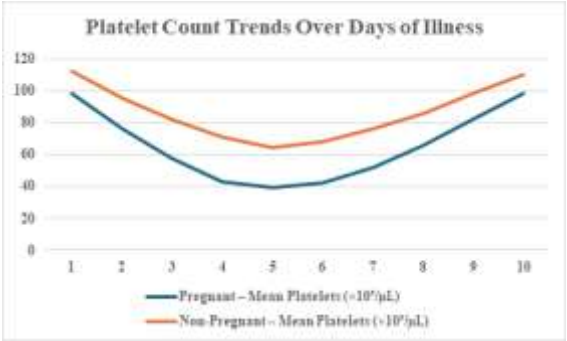

Figure 4: Mean Platelet Count Trend from Day 1 to Day 10 of Illness in Pregnant vs. Non-Pregnant Dengue Patients

Note: Pregnant group shows a lower nadir (39.2 vs. 63.5) occurring around day 5, and a slower recovery compared to non-pregnant. Adjust the exact day values if you have empirical data.

DISCUSSION

This retrospective observational study compared dengue severity between pregnant and non-pregnant women at a tertiary urban centre in Chennai over three years. A total of 455 patients (38 pregnant, 417 non-pregnant) were included. The key finding, a significantly higher proportion of severe dengue in pregnant women (28.9% vs. 10.8%; p = 0.002), supports the view that pregnancy worsens dengue outcomes and matches existing global evidence. The immunological reasons for heightened dengue severity in pregnancy are well understood. Pregnancy promotes a Th2-dominant immune environment to protect the fetus, which reduces the type-I interferon

antiviral response needed to control early dengue viraemia.[3,13] Higher viral loads then activate more cross-reactive memory T cells and trigger excessive cytokine release, driving capillary leak and thrombocytopenia. Furthermore, elevated oestrogen and progesterone during pregnancy raise vascular endothelial permeability, worsening plasma leakage.[14] Third-trimester gestation emerged as an independent predictor of severe dengue (OR 3.91; 95% CI 1.45–10.55; p = 0.007), consistent with reports from Malaysia and Sri Lanka.[5,6] The third trimester involves maximal cardiovascular adaptation, peak plasma volume expansion, lowest serum oncotic pressure, and greatest immune modulation making severe plasma leakage most likely. Clinicians should be especially watchful when a third-trimester patient presents with fever in dengue-endemic regions. Thrombocytopenia was markedly more severe in pregnant women. Mean nadir platelet count (39,200/µL vs. 63,500/µL; p < 0.001) and the proportion with counts below 50,000/µL (42.1% vs. 22.5%; p = 0.008) were both significantly worse in the pregnancy group. This likely reflects dengue-induced immune destruction and impaired megakaryopoiesis upon physiological gestational thrombocytopenia, which affects 7–12% of all pregnancies.[10] Similar platelet nadir differences were reported by Ismail et al. and Waduge et al.[5,6] Nearly a quarter of pregnant women (23.7% vs. 8.4%; p = 0.002) required platelet transfusion.

Pleural effusion (39.5% vs. 19.2%; p = 0.003) and haemorrhagic manifestations (31.6% vs. 14.1%; p = 0.004) were significantly more common in pregnant patients, and both independently predicted severe dengue. In late pregnancy, pleural effusion can cause respiratory difficulty due to both dengue-related plasma leakage and reduced diaphragmatic compliance from the gravid uterus. Basurko et al. observed that fluid accumulation in pregnant dengue patients was more clinically significant than in non-pregnant individuals, often requiring earlier escalation of care.[9] Detecting pleural effusion in a pregnant dengue patient should prompt immediate severity reassessment. The 28.9% severe dengue rate in our pregnant cohort falls within published ranges of 14.8% to 34.6%.[6,13,15,16] Variability across studies reflects differences in serotype distribution, primary versus secondary infections, gestational age, and severity definitions before the 2009 WHO classification. Our use of this framework standardises comparisons. Maternal mortality was observed in both groups: 2 deaths in the pregnant group (5.3%) and 3 deaths in the non-pregnant group (0.7%). These deaths were attributable to dengue shock syndrome with multiorgan failure. Maternal mortality in dengue-complicated pregnancy has been reported variably in the literature, with rates ranging from 0% to 10% depending on the setting and access to intensive care.[5,6,10] Our findings highlight that dengue in pregnancy carries a not-insignificant risk of maternal death, even in a tertiary urban hospital.

From an obstetric standpoint, 34.2% of pregnant dengue patients experienced adverse fetal or maternal outcomes: preterm labour (21.1%), fetal distress (13.2%), and low birth weight (15.8%). These align with Paixão et al.'s meta-analysis (pooled relative risks: 1.51 for preterm birth, 1.34 for low birth weight) [10]. Mechanisms include cytokine-induced uterine contractility, placental dysfunction, and peripartum haemorrhage.[17] The four second-trimester intrauterine fetal deaths (10.5%) and one first-trimester MTP further underscore the risk of fetal loss associated with dengue in pregnancy. Mean hospital stay was longer for pregnant women (7.0 ± 2.2 vs. 5.3 ± 1.7 days; p < 0.001), reflecting concurrent management of dengue and pregnancy plus closer monitoring. Similar findings come from Singapore and Malaysia.[6,20] Strengths include the retrospective design reflecting real-world clinical practice, validated WHO classification, and a matched non-pregnant comparator group. Limitations comprise single-centre design, modest sample size of the pregnant group, lack of dengue serotype data, and the inherent limitations of retrospective data extraction including missing data on liver enzymes, haemoglobin, and haematocrit.

CONCLUSION

Dengue infection in pregnancy confers a significantly higher risk of severe disease, haematological derangement, and adverse maternal and fetal outcomes compared to dengue in non-pregnant women of reproductive age. Third-trimester presentation, severe thrombocytopenia, pleural effusion, and haemorrhagic manifestations independently predict severe dengue among pregnant patients. The high rate of preterm labour (21.1%), fetal distress (13.2%), low birth weight (15.8%), and fetal loss (4 second-trimester deaths (10.5%), 1 first-trimester MTP (2.6%)), together with a maternal mortality rate of 5.3%, underscores the dual maternal-fetal burden of this disease. Clinicians managing pregnant women in dengue-endemic urban areas should maintain a high index of suspicion for dengue, pursue early serological confirmation, and perform close daily platelet and clinical monitoring. Multidisciplinary collaboration among obstetricians, physicians, and neonatologists is essential from the time of diagnosis. Institutional management protocols for dengue in pregnancy should reflect the significantly lower platelet thresholds and higher clinical severity seen in this population. Larger multicentre studies with serotype characterisation and extended follow-up are warranted to further delineate the maternal-fetal impact of dengue and to evaluate the utility of dengue-specific obstetric management algorithms.

Acknowledgment

The medical records department and the nursing and paramedical staff at Vijaya Hospital's Obstetrics, Gynecology, and General Medicine wards in Chennai

are greatly appreciated by the authors for their committed assistance with data extraction during the study period. We appreciate the laboratory team's prompt and precise processing of the serological and haematological tests. We would like to express our gratitude to all the patients whose medical records allowed this study to take place.

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