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"Dengue Shock Syndrome Complicating Twin Pregnancy In Late Gestation"

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Abstract
Background: *Dengue infection during pregnancy is associated with significant maternal and fetal complications, including hemorrhage, preterm delivery, and increased risk of severe disease. The presence of multiple gestation may further increase the risk due to larger placental mass and altered physiology.*
Objective: *To highlight the clinical course, management challenges, and outcomes of dengue shock syndrome complicating a high-risk twin pregnancy in late gestation.*
Case Summary: *A 28-year-old gravida 2, para 0, abortion 1 with diamniotic dichorionic twin pregnancy at 36 weeks presented with high-grade fever, chills, retro-orbital pain, myalgia, and thrombocytopenia. She received intravenous fluids, blood products, and was taken for cesarean section due to non-progression of labor, delivering healthy twins with normal birth weights. On postoperative day two, she developed dengue shock syndrome with severe hypotension, requiring aggressive fluid resuscitation and inotropic support. The patient gradually improved, was weaned off inotropes by day five, and discharged in stable condition on day seventeen of admission.*
Conclusion: *Dengue infection in pregnancy may present with severe complications, particularly in twin gestations where the risk of thrombocytopenia and shock may be higher. Early recognition, multidisciplinary management, and timely intervention are crucial for optimizing maternal and neonatal outcomes. This case is, to our knowledge, the first reported instance of dengue shock syndrome in a twin pregnancy, warranting further research into this association.*
Keywords: *Dengue, Pregnancy, Shock, Twin Gestation, Infection, Thrombocytopenia*

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I. Introduction:

Dengue fever, a mosquito-borne viral infection, remains a significant public health concern in endemic regions. Pregnant women with dengue are at increased risk of maternal morbidity, mortality, stillbirth, and preterm delivery. The physiological changes of pregnancy, including hemodilution and immunological modulation, complicate both diagnosis and management. Twin pregnancies, being inherently high-risk, may further predispose to complications due to larger placental mass and altered maternal physiology. We present a rare case of dengue shock syndrome in a twin pregnancy during late gestation, emphasizing the importance of prompt recognition and management.

II. Case Report:

A 28-year-old gravida 2, para 0, abortion 1, with diamniotic dichorionic twin pregnancy at 36 weeks, presented to the emergency department with high-grade fever, chills, retro-orbital pain, myalgia, and red spots on the lower limbs for two days. On examination, the uterus was overdistended, both fetuses were cephalic, and fetal heart rates were 142 and 156 bpm respectively. Ultrasonography confirmed live twin fetuses, each corresponding to 35 weeks with estimated weights of 2.5 kg and 2.4 kg.

Labor was induced, but due to non-progression, cesarean section was planned. The patient had thrombocytopenia (platelets 1.03 lakh/dL) and anemia (Hb 9.0 g/dL), for which she was transfused with single-donor platelets and packed red blood cells. Cesarean section was performed, and she delivered healthy twins with normal birth weights.

On postoperative day two, she developed dengue shock syndrome with blood pressure of 70/50 mmHg. She was managed with aggressive intravenous fluids and inotropic support. Gradual clinical improvement was observed, inotropes were tapered by day five, and the patient was discharged on day seventeen in stable condition along with her newborns.

III. Discussion:

Dengue in pregnancy is often more severe compared to non-pregnant individuals. Reported complications include maternal hemorrhage, stillbirth, intrauterine growth restriction, and neonatal death. Vertical transmission of dengue has also been documented. Twin pregnancies add another layer of risk, possibly due to increased placental mass, higher blood volume demand, and greater physiological stress. In this case, dengue shock syndrome developed despite timely diagnosis and management, highlighting the unpredictable course of the disease.

The management of dengue in pregnancy remains essentially the same as in the general population; however, transfusion thresholds, fluid balance, and maternal–fetal monitoring require careful consideration. Cesarean delivery in the context of thrombocytopenia carries high risk, but was necessary here due to labor arrest. Multidisciplinary care involving obstetricians, anesthetists, intensivists, and neonatologists was crucial in optimizing outcomes.

To the best of our knowledge, this is the first reported case of dengue shock syndrome complicating a twin pregnancy. This raises an important hypothesis that multiple gestation may predispose to more severe dengue manifestations, although further studies are warranted.

IV. Conclusion:

Dengue fever in pregnancy is associated with high risk of severe complications, and twin gestations may further predispose to adverse outcomes. Prompt diagnosis, aggressive supportive management, and multidisciplinary coordination are essential to ensure maternal and fetal survival. This case underlines the need for heightened vigilance and further research into the interplay between multiple gestation and severe dengue.

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