



## CASE REPORT ON POSTPARTUM HEMORRHAGE ASSOCIATED WITH DENGUE WITH WARNING SIGNS IN A TERM PREGNANCY AND DELIVERY

**Ms. Vidya Suroshe**

Assistant Professor in community health nursing Shalinitai meghe college of Nursing salad (hirapur) wardha Datta Meghe Institute Of Higher Education and Research, sawangi meghe wardha.

**Ms. Pratibha Wankhede**

Assistant Professor in community health nursing Shalinitai meghe college of Nursing salad (hirapur) wardha Datta Meghe Institute Of Higher Education and Research, sawangi meghe wardha.

**Ms. Aruna Maheshgauri**

Nursing tutor Shalinitai meghe college of Nursing salad(hirapur) wardha Datta Meghe Institute Of Higher Education and Research,sawangi meghe wardha.

### ABSTRACT

**Introduction:** Dengue virus affects only 2.5 percent of all pregnancies among parturient women in endemic areas<sup>1</sup>. Dengue infection may be one of the potential risk factors for large postpartum hemorrhage<sup>2</sup> as well as many other catastrophic problems for women, in addition to the possibility of vertical transmission to infants. If the mother is experiencing any bleeding complications during the postpartum period, such as a caesarean section, the haemorrhage may be worsened and life-threatening. Despite the fact that postpartum haemorrhage is one of the most dangerous obstetric complications, especially when it occurs in conjunction with Dengue infection, there have been few publications published in the medical literature about how to treat it. We show a pregnant Vietnamese woman who did not keep her antenatal appointments or complete her prenatal examinations. She had been diagnosed with Dengue fever with warning indications prior to admission to our obstetric facility. At the same time, the parturient woman was suffering from polyhydramnios. **Important clinical findings and/or main symptoms** At 39.5 weeks of pregnancy, a 34-year-old gravida III lady presented to our hospital with no notable medical history. She did not follow the consultant's timetable or complete prenatal testing on a regular basis during her pregnancy. The parturient woman was diagnosed with polyhydramnios by ultrasonography at 39 weeks of pregnancy and was admitted to a regional hospital for observation. Unfortunately, we were unable to get the photos necessary to prove her polyhydramnios. She developed a persistent high-grade fever (39°C) with myalgia and arthralgia on her fourth inpatient day in the regional hospital. A platelet count of 69,000/mm<sup>3</sup> and a hematocrit of 38.8% were found in the initial full blood count. The patient was diagnosed with Dengue fever and received symptomatic and supportive therapy for three days, including acetaminophen and intravenous fluids. The patient's vital signs and bleeding symptoms were also properly checked. The body temperature dropped on the seventh day of hospital care and then stayed constant. **Main symptoms and/or important clinical findings** The patient was awake and attentive on the day of admission, with normal vital signs (blood pressure of 120/80 mmHg, temperature of 37°C, pulse of 100 beats/min, and respiration rate of 20 breaths/min). The obstetrician found a 33 cm fundal height and a foetal heart rate of 142 beats per minute during the examination. The cervix was 2 centimetres dilated and 60% effaced. The quick test for Dengue diagnosis provided the following results in terms of laboratory analysis: NS1 antigen (+), IgM Dengue (+), and IgG Dengue (+). (-). The hematocrit climbed to 45.2 percent, while the platelet count decreased to 32,000/mm<sup>3</sup> in a steady downward trend. A coagulation workup, as well as liver and renal function testing, indicated no abnormalities. The patient was given 2 units of packed platelet concentrate in the delivery room 30 minutes before giving birth. With an APGAR score of 8, the patient successfully delivered a healthy female newborn weighing 3,500 grammes via vaginal delivery. **Conclusion** In the obstetric medical literature, a case of postpartum bleeding caused by uterine atony and accompanied by Dengue infection in a term pregnancy and delivery is uncommon. There hasn't been a conventional treatment proposed yet. Fortunately, in our current situation, conservative treatment and timely uterotonic delivery resulted in good management.

**KEYWORDS :** Pregnancy, Uterine Atony, Postpartum Haemorrhage, And Polyhydramnios Are All Symptoms Of Dengue.

### INTRODUCTIONS

Dengue virus affects only 2.5 percent of all pregnancies among parturient women in endemic areas<sup>1</sup>. Dengue infection may be one of the potential risk factors for large postpartum hemorrhage<sup>2</sup> as well as many other catastrophic problems for women, in addition to the possibility of vertical transmission to infants. If the mother is experiencing any bleeding complications during the peripartum period, such as a caesarean section, the haemorrhage may be worsened and life-threatening. Despite the fact that postpartum haemorrhage is one of the most dangerous obstetric complications, especially when it occurs in conjunction with Dengue infection, there have been few publications published in the medical literature about how to treat it. We show a pregnant Vietnamese woman who did not keep her antenatal appointments or complete her prenatal examinations. She had been diagnosed with Dengue fever with warning indications prior to admission to our obstetric facility. At the same time, the parturient woman was suffering from polyhydramnios

### Information for Patients:

At 39.5 weeks of pregnancy, a 34-year-old gravida III lady presented to our hospital with no notable medical history. She did not follow the consultant's timetable or complete prenatal testing on a regular basis during her pregnancy. The parturient woman was diagnosed with polyhydramnios by ultrasonography at 39 weeks of pregnancy and was admitted to a regional hospital for observation. Unfortunately, we were unable to get the photos necessary to prove her polyhydramnios. She developed a persistent high-grade fever (39°C) with myalgia and arthralgia on her fourth inpatient day in the regional hospital. A platelet count of 69,000/mm<sup>3</sup> and a hematocrit of 38.8% were found in the initial full blood count. The patient was diagnosed with Dengue fever and received symptomatic and supportive therapy for three days, including acetaminophen and intravenous fluids. The patient's vital signs and bleeding symptoms were also properly checked. The body temperature dropped on the seventh day of hospital care and then stayed constant.

### Current pregnancy history

At 39.5 weeks of pregnancy, a 34-year-old gravida III lady with no notable medical history presented to our hospital. She did not follow the consultant's schedule or do prenatal testing on a regular basis during her pregnancy. The parturient woman was diagnosed with polyhydramnios and admitted to a provincial hospital for surveillance at 39 weeks of pregnancy. We were unable to collect photos that would have confirmed her polyhydramnios. She had a persistent high-grade fever (39°C) linked with myalgia and arthralgia on her fourth inpatient day in the regional hospital. A platelet count of 69,000/mm<sup>3</sup> and a hematocrit of 38.8% were found on the initial full blood count. The patient was diagnosed with Dengue fever and was treated with acetaminophen and intravenous fluids for three days for symptomatic and supportive treatment. The patient's vital signs and bleeding symptoms were also carefully checked. The body temperature dropped on the seventh day of inpatient treatment, then stayed the same.

### Primary concerns and symptoms of the patient:

The patient was awake and attentive on admission day, with normal vital signs (blood pressure of 120/80 mmHg, temperature of 37°C, pulse of 100 beats per minute, and breathing rate of 20 breaths per minute). The doctor found a 33 cm fundal height and a foetal heart rate of 142 beats per minute during the obstetric examination. The cervix had dilated to 2 cm and was 60% effaced. The fast test for Dengue diagnosis yielded the following results in terms of laboratory analysis: NS1 antigen (+), IgM Dengue (+), and IgG Dengue (+). (-). The hematocrit rose to 45.2 percent, while the platelet count fell to 32,000/mm<sup>3</sup>. No abnormalities were found in the liver or kidneys, nor in the coagulation workup. Before giving birth, the patient received two units of packed platelet concentrate in the delivery room. With an APGAR score of 8, the patient delivered a healthy female newborn weighing 3,500 grammes via vaginal delivery.

### Medical, family, and psychosocial histories:

The patient was awake and attentive on the day of admission, with normal vital signs (blood pressure of 120/80 mmHg, temperature of 37°C, pulse of 100 beats/minute). There was no previous medical history, such as tuberculosis, asthma, or any previous operation, and no psychological history, according to her and her entire family. She was a 34-year-old married multigravida with no formal education and a pastoralist's livelihood who lived in a rural location. Despite her low socioeconomic and breathing rate of 20 breaths/min, the patient has a very nice attitude and good interpersonal connection with her neighbours and other people in society, according to her mother. On the subject of obstetrics

### Relevant historical interventions and outcomes:

Relevant historical interventions and outcomes: Prior to pregnancy, the patient was healthy and had no history of hypertension or diabetes, according to patients and family members who reported past medical and surgical histories. As a result, no data has been collected. status nomic

### Clinical findings:

The patient was awake and attentive on the day of admission, with normal vital signs (blood pressure of 120/80 mmHg, temperature of 37°C, pulse of 100 beats/min, and respiration rate of 20 breaths/min). The obstetrician found a 33 cm fundal height and a foetal heart rate of 142 beats per minute during the examination. The cervix was 2 centimetres dilated and 60% effaced. The quick test for Dengue diagnosis provided the following results in terms of laboratory analysis: NS1 antigen (+), IgM Dengue (+), and IgG Dengue (+). (-). The hematocrit climbed to 45.2 percent, while the platelet count decreased to 32,000/mm<sup>3</sup> in a steady downward trend. A coagulation workup, as well as liver and renal function testing, indicated no abnormalities. The patient was given 2 units of packed platelet concentrate in the delivery room 30 minutes before

giving birth. With an APGAR score of 8, the patient successfully delivered a healthy female newborn weighing 3,500 grammes via vaginal delivery.

### Important clinical findings and significant physical examination (PE).

At 39.5 weeks of pregnancy, a 34-year-old gravida III lady presented to our hospital with no notable medical history. She did not follow the consultant's timetable or complete prenatal testing on a regular basis during her pregnancy. The parturient woman was diagnosed with polyhydramnios by ultrasonography at 39 weeks of pregnancy and was admitted to a regional hospital for observation. Unfortunately, we were unable to get the photos necessary to prove her polyhydramnios.

She developed a persistent high-grade fever (39°C) with myalgia and arthralgia on her fourth inpatient day in the regional hospital. A platelet count of 69,000/mm<sup>3</sup> and a hematocrit of 38.8% were found in the initial full blood count. The patient was diagnosed with Dengue fever and received symptomatic and supportive therapy for three days, including acetaminophen and intravenous fluids. The patient's vital signs and bleeding symptoms were also properly checked. The body temperature began to drop on the seventh inpatient day, and then began to rise again.

### Timeline:

At 39.5 weeks of pregnancy, a 34-year-old gravida III lady presented to our hospital with no notable medical history. She did not follow the consultant's timetable or complete prenatal testing on a regular basis during her pregnancy. The parturient woman was diagnosed with polyhydramnios by ultrasonography at 39 weeks of pregnancy and was admitted to a regional hospital for observation. Unfortunately, we were unable to get the photos necessary to prove her polyhydramnios.

She developed a persistent high-grade fever (39°C) with myalgia and arthralgia on her fourth inpatient day in the regional hospital. A platelet count of 69,000/mm<sup>3</sup> and a hematocrit of 38.8% were found in the initial full blood count. The patient was diagnosed with Dengue fever and received symptomatic and supportive therapy for three days, including acetaminophen and intravenous fluids. The patient's vital signs and bleeding symptoms were also properly checked. The body temperature dropped on the seventh inpatient day and thereafter stayed the same.

### This timeline contains historical and current data from this episode of care.

The patient was awake and attentive on the day of admission, with normal vital signs (blood pressure of 120/80 mmHg, temperature of 37°C, pulse of 100 beats/min, and respiration rate of 20 breaths/min). The obstetrician found a 33 cm fundal height and a foetal heart rate of 142 beats per minute during the examination. The cervix was 2 centimetres dilated and 60% effaced. The quick test for Dengue diagnosis provided the following results in terms of laboratory analysis: NS1 antigen (+), IgM Dengue (+), and IgG Dengue (+). (-). The hematocrit climbed to 45.2 percent, while the platelet count decreased to 32,000/mm<sup>3</sup> in a steady downward trend. A coagulation workup, as well as liver and renal function testing, indicated no abnormalities. The patient was given 2 units of packed platelet concentrate in the delivery room 30 minutes before giving birth. With an APGAR score of 8, the patient successfully delivered a healthy female newborn weighing The uterine contractions stopped abruptly after 10 hours and turned swampy; the total blood loss was around 1000 ml. Due to uterine atony, the patient was diagnosed with postpartum haemorrhage. In two and a half hours, intravenous fluid resuscitation with 500 ml of 0.9 percent NaCl was administered. In addition, 20 IU of oxytocin dissolved in 500 ml of Lactated Ringer's solution was given intravenously at a rate of 3 ml/min. In addition, the patient received an intramuscular

injection of 200 mcg Methylergometrine. There were no more bleeding episodes after 2 hours of rigorous therapy, and vital signs returned to normal. Following labour, examinations revealed significant thrombocytopenia with a platelet count of 47000/mm<sup>3</sup>, but no abnormal coagulation. After oxytocin had successfully controlled the bleeding, the clinicians decided to transfuse one more unit of platelets to boost the patient's platelet count. 3.500 grammes via vaginal delivery.

#### **laboratory testing, imaging, and surveys are examples of diagnostic testing.**

The dengue virus causes a wide range of symptoms, many of which are non-specific. As a result, a diagnosis based solely on clinical symptoms is suspect. Because some patients develop from mild to severe disease, and occasionally death, early test confirmation of a clinical diagnosis may be beneficial. Early action could save a person's life.

Dengue infections can be identified by virus isolation in cell culture, detection of viral RNA by nucleic acid amplification tests (NAAT), or detection of viral antigens by ELISA or fast assays before day 5 of illness, during the feverish period. In most cases, virus isolation in cell culture is limited to laboratories with the appropriate infrastructure and technical know-how. It is critical to keep blood samples chilled or frozen during virus culture to ensure the virus's survival during travel from the patient to the laboratory. Dengue

However, these tests necessitate costly equipment and reagents, and tests must adhere to quality control protocols and be done by skilled specialists in order to avoid contamination. NS1 antigen detection kits, which are now commercially accessible, can be utilised in laboratories with limited resources and produce results in a matter of hours. In the field, rapid dengue antigen detection techniques can be employed and produce results in less than an hour. These assays are currently not type-specific, are expensive, and are being tested for diagnostic accuracy and cost-effectiveness in a variety of contexts.

#### **Challenges in diagnosing (such as access to testing, financial, or cultural)**

Patients turned to a Suman card, under which all studies were free of charge, and it aided in free normal birth and caesarian section, as well as benefiting newborn baby treatment, as a result of her poor socioeconomic status. Throughout the rest of the testing and examinations, she was really cooperative. Virus isolation specimens should be collected early in the course of the infection, during the viraemia stage (usually before day 5). Virus can be recovered from serum, plasma, and mononuclear cells in the peripheral blood, as well as from postmortem tissues (e.g. liver, lung, lymph nodes, thymus, bone marrow). Because dengue virus is heat-labile, specimens should be stored in the refrigerator or packed in wet ice until they are transported to the laboratory. Specimens should be stored between +4 °C and +8 °C for up to 24 hours. Specimens should be kept in the refrigerator for extended storage.

**Diagnosis:** At 39 weeks of pregnancy, ANC with Muitigravida with preeclampsia was performed.

**prognosis:** Good to fair

Administration of therapeutic intervention (dosage, strength, and duration, for identifying the causal agent is one of the top concerns in a suspected outbreak so that proper public health actions may be done and physicians can be encouraged to begin adequate acute illness therapy. In such instances, diagnostic tests' speed and specificity are more crucial than test sensitivity. Samples taken from fever patients could be analysed using nucleic acid methods in a well-equipped laboratory or an ELISA-based dengue antigen detection kit in a wider range of laboratories. Commercial IgM ELISA or

sensitive dengue IgM fast testing may suggest a dengue outbreak if specimens are obtained after day 5 of illness, but results should be validated by reliable serological tests performed in a reference laboratory with broad arbovirus diagnostic capacity. Serological assays can be performed to figure out how big an outbreak is. It is recommended that you receive supportive care: Patients should be urged to drink plenty of water and avoid using aspirin (acetylsalicylic acid), (example). Because of their anticoagulant effects, aspirin and other nonsteroidal anti-inflammatory medications (such as ibuprofen) are used. Acetaminophen and tepid sponge baths should be used to treat fever. To limit the danger of future transmission, febrile patients should avoid mosquito bites. Dengue Fever is a severe form of the disease. Close supervision and frequent monitoring in an intensive care unit may be required for patients who develop severe dengue. In dengue patients, prophylactic platelet transfusions are not useful and may add to fluid overload. Corticosteroids have no proven benefit and may be detrimental to patients; they should not be administered unless absolutely necessary. In the event of an autoimmune problem (e.g., hemophagocytic lymphohistiocytosis, immune thrombocytopenia purpura). All essential blood tests are performed on a regular basis, and all necessary issues that may occur before and after delivery are documented using a written consent form signed by her spouse.

#### **Changes in therapeutic intervention (with rationale):**

The patient was awake and attentive on the day of admission, with normal vital signs (blood pressure of 120/80 mmHg, temperature of 37°C, pulse of 100 beats/min, and breathing rate of 20 breaths/min). The obstetrician found a 33 cm fundal height and a foetal heart rate of 142 beats per minute during the examination. The cervix was 2 centimetres dilated and 60% effaced. The quick test for Dengue diagnosis provided the following results in terms of laboratory analysis: NS1 antigen (+), IgM Dengue (+), and IgG Dengue (+). (-). The hematocrit climbed to 45.2 percent, while the platelet count decreased to 32,000/mm<sup>3</sup> in a steady downward trend. A coagulation workup, as well as liver and renal function testing, indicated no abnormalities. The patient was given 2 units of packed platelet concentrate in the delivery room 30 minutes before giving birth. After 1 and 5 minute(s), respectively, the patient successfully delivered a healthy girl newborn weighing 3.500 grammes via vaginal delivery with an APGAR score of 8 and 9. A uterine atony and a first-degree vaginal tear were discovered, resulting in a blood loss of around 200 ml. After actively managing the third stage of labour, the perineal laceration was sutured and the retained products of conception were removed. The uterus was well constricted after that, with a blood pressure of 120/72 mmHg and a pulse of 86 beats/min. The mother and baby were taken to the waiting area to be observed. The uterine contractions abruptly slowed and were swampy after 10 hours; the total amount of blood loss was around 1000 ml.

#### **Outcomes as judged by the clinician and the patient (if applicable):**

Sequential infection with distinct dengue serotypes has been shown to predispose people to more severe manifestations of the disease. Endothelial dysfunction, platelet destruction, and consumptive coagulopathy are caused by an increase in the cross-reactive cascade of amplified non-neutralizing heterologous antibodies, cytokines (e.g., interferon-gamma produced by particular T-cells), and complement activation [21,22]. In this investigation, we discovered that secondary infections were more likely to cause maternal and neonatal problems (severe thrombocytopenia, severe dengue infection, dengue encephalitis, maternal death, oligohydramnios, and IUFD). These findings could be used to describe the negative consequences of secondary infection in our community. This information could be utilised to provide prognostic advice to patients. According to the patient's comments, despite all of the treatment, the patient progressed to the active side, her blood pressure was normal, her platelet count was normal, her

temperature was lowered, and her headache and epigastric discomfort were reduced. The patient's overall health was much better than it had been.

had been when she was admitted, and when she returned for a follow-up in the gyn opd on the 20th day, she stated that she had no problems standing or walking, and she Despite all of the attention, the patient is doing

#### **Important diagnostic and other test results to follow up on:**

Advise the mother and family to seek care immediately, day or night. They should not wait if the baby has any of these signs: difficulty in breathing or indrawing fits fever feels cold bleeding not feeding yellow palms and soles of feet diarrhea The mother and family should go to the health centre as soon as possible if a baby has any of the following signs:difficulty feeding (poor attachment, not suckling well)is taking less than 8 feeds in 24 hours pus coming from the eyes or skin pustulesirritated cord with pus or bloodyyellow eyes or skin.ulcers or thrush (white patches) in the mouth - explain that this is different from normal breast milk in the mouthTo avoid constipation, the patient was advised to follow up periodically and eat a salt-restricted diet, a low-spicy diet, a high-protein, calcium, and iron-rich supplement diet at the time of discharge. Drink plenty of water and one glass of milk before going to bed. To avoid constipation and controlled coughing, avoid lifting large weights. Travel and strenuous labour should be avoided at all costs.

#### **Adherence to the intervention and tolerability (How was this determined?)**

The patient adhered to the intervention and tolerated it wellUnexpected and unfavourable events:There were no negative side effects reported.

#### **DISCUSSION**

Several studies have suggested that Dengue infection can predispose full-term pregnant women to postpartum hemorrhage, even massive bleeding. Chotigeat et al. reported one case of a patient suffering from Dengue shock syndrome (DSS) which later developed postpartum hemorrhage 4. Thaithumyanon et al. described a of heavy bleeding following a C-section 3. The report of Chye JK. et al. described a parturient woman with substantial thrombocytopenia and abnormal coagulation which required intensive treatment 5. Our case report, however, may be the first detailed description of a severe postpartum hemorrhagic case involving uterine atony 6. Postpartum hemorrhage arose after vaginal delivery and was complicated by thrombocytopenia secondary to DWS. Diagnosis of DWS in late pregnancy requires a high degree of clinical suspicion because signs and symptoms frequently seen in Dengue may be confused with preeclampsia complicated by HELLP syndrome 5, 7. Moreover, physiological hemodilution in late pregnancy 8 may obscure the degree of vascular leakage and challenge clinicians to evaluate it as well as to treat the patient appropriately. In our case, the patient experienced high fever, marked thrombocytopenia, hematocrit above the upper limit of the normal value and particularly, no clinical or laboratory findings suggesting preeclampsia with HELLP syndrome; this made the diagnosis of Dengue more probable. The diagnosis was confirmed by positive results from NS1 antigen and IgM/IgG rapid tests. We chose the rapid diagnosis test due to the fact that our laboratory's resources were limited and the patient needed emergency management.

#### **The following is a summary of the relevant medical literature:**

The purpose of this research was to review the existing information on postpartum haemorrhage (PPH) and how to manage it physiologically (i.e., skin-to-skin contact and breastfeeding). The background of PPH is discussed, as well as the significance of skin-to-skin contact (SSC) and breastfeeding (BF) in PPH, and these therapies are

recommended as important ways to prevent or reduce the incidence of PPH. Despite its significance, to the best of my knowledge, this relationship has not yet been evaluated. To summarise topic-related research, the narrative literature review method was applied. Three databases were used in the search: CINAHL, PubMed, and Google Scholar. From several databases, all publications relating to the role of SSC and BF in PPH were selected. The results show that SSC and BF are cost-effective strategies that could be used to prevent PPH. Breastfeeding (BF) and immediate skin-to-skin contact (SSC) are important mediators of the

#### **CONCLUSION:**

Previous pregnancy conditions, according to this study, may repeat themselves in future pregnancies. Furthermore, the ambulance is used by the health administration for administrative purposes rather than medical emergencies. In the obstetric medical literature, a case of postpartum bleeding caused by uterine atony and accompanied by Dengue infection in a term pregnancy and delivery is uncommon. There hasn't been a conventional treatment proposed yet. Fortunately, in our current situation, conservative treatment and timely uterotonic delivery resulted in good management.

#### **REFERANCES**

- 1 The year's global burden of hypertensive diseases of pregnancy. EIP 3-4 in World Health Organization, 2000.
- 2 Dolea C, AbouZahr C.2nd edition of Obstetrics: Normal and Problem Obstetrics. Obstetrics: Normal and Problem Obstetric Pregnancies.. ChurchillLivingstone, an imprint of Elsevier; 2007.
- 3 S. M. Edmonds, S. M. Tong, Scott D. Coolray, S. M. Edmonds, S. M. Tong, Scott D. Coolray, S. M. Edmonds, S Symptoms that occur soon before eclampsia are described. *Obstet Gynecol* 118(5):995-9.
- 4 Magnesium sulphateineclampsia, was reported in the American Journal of Obstetrics and Gynecology in 2011. Glasgow Coma Scale, Kathleem MG. *The Lancet*. vol. 351, no. 9108, pp. 1061-5. You may find the Glasgow Coma Scale 5 5 5 sahttps://www. traumaticbraininjury.com/glasgow-coma-scale/. I was able to obtain some information on the 11th of August, 2006.
- 6 ps://shodhganga.inflibnet.ac.in/handle/10603/212372 I was able to obtain some information on the 11th of August, 2006.
- 7 ps://shodhganga.inflibnet.ac.in/handle/10603/212372
- 8 ps://shodhganga.inflibnet.ac.in/handle/10603/212372
- 9 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4712