Case Report on HELLP Syndrome with Severe Anemia

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Abstract

Background: The pregnancy condition known as the HELLP-syndrome (Haemolysis, Elevated Liver enzymes, Low Platelets) is connected to preeclampsia and may result in sub capsular liver hematomas. Estimates of incidence range from 0.5 to 7.6 per 1000 births, and between 8% and 24% of HELLP cases are considered severe. Here we are introducing a 24-year-old patient who visited to gynaecological outpatient department unit with complaint of abdominal and chest pain specially in right upper side, bleeding, changes in vision, heat intolerance specially in night but cold hand, insomnia weight loss, nausea, and vomiting, sweating, dizziness, tremor, increase appetite headache, edema over feet since last one month. The patient underwent through a blood investigation (CBC), D-dimer test, liver enzyme test, and sonography and magnetic resonance image. After all the investigation patient shifted for lower segment caesarean section(LSCS) After that the patient is shifted to ward for further management after that she has administered the right dose of anti-thyroid medication, anti-conversant beta blocker, anti edoema and other suppository medication. After treatment, the patient's condition was improved than before.

Keywords: HELLP syndrome, Pre-eclampsia, anemia, platelet transfusion, pregnancy, Diagnosis, Treatment.

INTRODUCTION

The condition known as HELLP syndrome is linked to significant maternal morbidity and mortality.(1) One of the most frequent pregnancy problems is hypertensive disorders, although HELLP syndrome is one of the pathology’s most severe manifestations.(2)

The HELLP syndrome is defined by the trio of micro-angiopathic hemolysis, increased liver enzymes, and low platelet count, which together form a hypertension disease.(3) Pre-eclampsia/eclampsia is a multisystem illness with a frequency of up to 0.9% in all pregnancies and affects around one-fourth of pre-eclampsia individuals.(4)

Normal physiological changes that occur during pregnancy have an impact on haemoglobin (Hb), which either has a relative or absolute reduction in concentration.(5) Iron deficiency anaemia, which affects about 75% of pregnant women, and folic deficiency megaloblastic anaemia it is frequent anaemia, which affects more of them when their diets are poor and they don't take prenatal iron and folic supplements.(6) This anaemia are more prevalent in women who do not take prenatal iron and folic supplements and who have poor diets. Iron deficiency anaemia due to the increased nutritional needs of the mother and foetus. These anemias are more prevalent in women who do not take prenatal iron and folate supplements and who have poor diets.(7-15)

CASE PRESENTATION

24 years old, 2 gravida female with 37 weeks of gestation presented to us with chief complaint of bilateral pedal enema since one month, abdominal and chest pain specially in right upper side, bleeding, changes in vision, heat intolerance specially in night but palm of hand was cold, insomnia, weight loss due to nausea and vomiting, excessive sweating at work, dizziness, tremor, increase appetite headache.
She had previously undergone a lower segment caesarean section (LSCS) for a transverse lying because of a history of severe pre-eclampsia. Her blood pressure was 150/100 mmHg, and both of her feet were swollen. By using the dip stick method, random urine albumin was +2.

Obstetrical examination revealed abdominal wall edema, scar of previous caesarean section had found, a regular foetal heart sound (FHS), and was relaxed. A vaginal examination revealed that the os was closed. At the time of admission, the patient's haemoglobin= 5.6g/dl, platelet count=0.35, serum bilirubin =1.1, liver enzymes and prothrombin time were all within the normal range.

An ultrasound for foetal well-being revealed a developed intrauterine foetus at 31 weeks with an early diastolic notch in the right uterine artery. After all the investigation doctor suggested for the caesarean section and patient undergone through LSCS with spinal anaesthesia follicle catheter had done. In between she had seizure during the caesarean procedure.

She has treated with inj. Magnesium sulphate with appropriate dose, Intravenous fluid, inj. Oxytocine, injceftraixone(1mg) iv 12 hourly, inj. Amikacine 500mg iv 12 hourly, inj vit k, inj tramadol 2CC iv 12 hourly, injEmset 4 mg IV SOS, zonac suppository TDS. Blood transfusion had been done. After the procedure the baby got delivered and cry immediately. However, because of low birth weight baby shifted to NICU on CPAP and oesophageal feeding after every 2 hourly with other medical management as inj. Piptaz, inj. Amikasim

DISCUSSION

HELLP syndrome is a pre-eclampsia pregnancy condition that can be deadly. Three classes of HELLP syndrome severity are determined and assigned based on the mother's blood platelet count. A microangiopathic hemolytic anaemia causes hemolysis, one of the disorder's primary symptoms. Increased liver enzyme levels are a sign of both the hemolytic process and liver damage. While liver injury is the primary source of elevated aspartate aminotransferase (AST) and alanine amino-transferase (ALAT) levels, haemolysis has a considerable impact on elevated LDH levels. Their increased consumption is the cause of the decreased platelet count in the HELLP syndrome. Increased platelet turnover and shorter platelet lifespan arise from platelets becoming activated and adhering to injured vascular endothelial 15% to 30% of women who develop HELLP syndrome do so between 27 weeks of pregnancy and delivery or right after giving birth. (16-25)

The regular physiological changes that take place during pregnancy that affect the hematocrite, indices, and certain other indicators make it difficult to diagnose true anaemia and define the aetiology of anaemia. The most frequent anemia is megaloblastic anaemia and iron deficiency anaemia due to the increased nutritional needs of the mother and foetus. (7) Women with poor diets and no prenatal iron and folic supplementation are more likely to develop these anemias. Other, less common types of acquired anaemia in pregnancy include aplastic anaemia and hemolytic anaemia associated with preeclampsia. Aplastic anaemia and haemolytic anaemia linked to preeclampsia are two other, less frequent forms of acquired anaemia in pregnancy. (9) Additionally, congenital anemia such sickle cell disease might affect the mother's and foetus’s health. Of course, both the mother and the foetus suffer negative repercussions from severe anaemia. (26-30)

Additionally, there is proof that less severe anaemia is linked to unsuccessful pregnancies. There is still no clear explanation for this relationship. To ensure the mother and baby's best health and wellbeing, it is crucial to identify and treat anaemia during pregnancy. (31-34)

CONCLUSION

The diagnosis of the HELLP syndrome has up till now been made using many criteria and categories. Numerous clinical papers usefulness has been harmed as a result. Anemia during pregnancy may have negative effects on the mother and the foetus. To get the best pregnancy outcomes, evidence-based care is crucial. The client came with the complaint of nausea, vomiting abdominal and chest pain specially in right upper side, bleeding, changes in vision, heat intolerance specially in night but cold hand, insomnia weight loss, , sweating , dizziness, tremor, increase appetite headache, edema over feet on 24 weeks of gestation, headache and blurred vision. After surgical management and medical management the condition of patient was good.