



HELLP SYNDROME WITH HEPATIC ENCEPHALOPATHY: A CASE REPORT

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Article Received on 10/06/2019

Article Revised on 30/06/2019

Article Accepted on 21/07/2019

ABSTRACT

HELLP is an acronym that refers to a syndrome characterized by haemolysis, elevated liver enzymes, and a low platelet count. Pregnancy associated liver diseases affect up to 3% of pregnant women and are the most frequent cause of liver dysfunction in pregnancy. We present a case of a patient with HELLP syndrome and hepatic encephalopathy following a normal delivery. Patient had a normal delivery at a peripheral hospital and had post-partum haemorrhage. She was referred to us with the complaints of abnormal behaviour, fever and pain in abdomen. A high index of suspicion should be kept for pregnant patients presenting with altered mental status, deranged liver function tests and coagulopathy. Hepatic encephalopathy can occur during pregnancy or post-partum period because of pre-eclampsia-related liver injury. Other causes for hepatic encephalopathy can be acute and chronic liver diseases, including acute viral hepatitis, acute fatty liver of pregnancy. Management of liver failure in pregnancy requires a multi-disciplinary approach with combined and coordinated effort by the intensivist, obstetrician, hepatologist and neonatologist.

KEYWORDS: HELLP syndrome, hepatic encephalopathy, pregnancy.

INTRODUCTION

Pre-eclampsia is a multisystem disorder which involves endothelial dysfunction and fibrin deposition leading to the development of hypertension, renal failure and hepatic dysfunction. HELLP is an acronym that refers to a syndrome characterized by haemolysis, elevated liver enzymes, and a low platelet count.^[1] It occurs in 0.5%–0.9% of all pregnancies. Diagnosis can get delayed because of absence of classical signs of preeclampsia. HELLP syndrome is associated with serious maternal morbidity and mortality^[2], especially when it arises in the postpartum period. We present a case of a referred patient with HELLP syndrome and hepatic encephalopathy following a normal delivery. Pregnancy associated liver diseases affect up to 3% of pregnant women and are the most frequent cause of liver dysfunction in pregnancy.^[3]

CASE REPORT

A patient was admitted to our hospital which is attached to a rural medical college, as an emergency case. She was a primigravida who had delivered outside at a hospital at her native place. She had a full term normal delivery and gave history of post-partum haemorrhage. She was referred to our hospital after 2 days. The patient came with the complaints of abnormal behaviour, fever

and pain in abdomen. History of hypertension or diabetes in pregnancy could not be elicited.

On examination she was semi-comatose, not responding to commands. However she responded to deep stimuli. She was having abnormal body movements in all the four limbs and irrelevant talk. Pulse was 120/min, respiratory rate was 16/min, blood pressure was 140/90, temperature was normal. Patient was grossly pale but there was no oedema. Tendon reflexes were normal and urine output on admission was 50 ml. The respiratory system and cardio-respiratory system was normal. On per abdominal examination the uterus was well contracted and there was gaseous distension. There was no abdominal tenderness. Fundoscopic examination showed no evidence of papilledema. ECG and Echocardiography were normal. CT scan of the brain was normal. Lumbar puncture done did not reveal any abnormality. Abdominal ultrasound showed some collection in pouch of Douglas, an involuting uterus and normal ovaries.

Investigations were as follows- Haemoglobin 4.6gm%, MCHC-24, HCT-30.8, and MCV- 95. Total RBC count 3.04, White Blood Cell count was 27900, Differential count was G-56, L-40, M-2, E-2, B-0. Platelet count was 70000 /cumm. Prothrombin time INR was 1.70, APTT

was 36.4 (C=30). Sickling was negative. D-dimer was negative. Blood sugar levels were normal. Serum creatinine was 1.67, blood urea was 78, serum potassium was 3.2, sodium was 135, serum uric acid was 9.4 and LDH was 858. Serum aspartate aminotransaminase was 265 and serum alanine aminotransaminase (ALT) was 245. Serum bilirubin levels were as follows, total bilirubin was 6.26, conjugated-2.77, unconjugated-3.49, globulin-3.60. Total proteins - 6.5, albumin - 2.9, globulin - 2.3, serum phosphate - 1.5 and troponin negative. Serum magnesium levels were 2.19.

Patient was shifted to ICU for treatment. Two units of packed red blood cells were transfused. She was given higher antibiotics Piperacillin-tazobactam and Linezolid. Rifaximin was given for gut sterility. She was started on syrup lactulose 30ml at bed time, intravenous fluids and symptomatic management. Close monitoring of the patient was done in ICU. Patient responded well to supportive treatment. After six days she was well oriented to time, place and person and was taking care of her baby. Her haemoglobin was 9.2 gm%, serum electrolytes were normal and liver function tests had come down to acceptable levels. Serum bilirubin was 1.6 and serum creatinine was 1.2.

Baby was shifted to NICU on 5th day in view of neonatal jaundice. And then was given mother side after treatment.

Both mother and baby could be discharged in good condition after 10 days.

DISCUSSION

HELLP is a multisystem disease, resulting in generalized vasospasm, micro thrombi formation, and coagulation defects. Hepatic encephalopathy can occur during pregnancy or post-partum period because of pre-eclampsia-related liver injury. Other causes for hepatic encephalopathy can be acute and chronic liver diseases, including acute viral hepatitis, acute fatty liver of pregnancy.^[3]

Early diagnosis is of vital importance. A high index of suspicion should be kept for pregnant patients presenting with altered mental status, deranged liver function tests and coagulopathy. Determining the cause of liver failure can be a major challenge because multiple conditions during pregnancy result in similar changes in laboratory parameters. Management of liver failure in pregnancy requires a combined and coordinated effort by the intensivist, obstetrician, hepatologist, neonatologist etc. A multi-disciplinary approach will help improve the prognosis of patients with liver damage.

CONCLUSION

We present a case of HELLP syndrome with hepatic encephalopathy who was referred to us in bad shape. The case was successfully managed in ICU setting with the timely diagnosis and appropriate treatment. A multi-disciplinary approach was necessary for successful

outcome. Both mother and baby were discharged in good condition.

Conflict of Interests – none

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