

Postpartum multi organ dysfunction: A diagnostic dilemma

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Introduction

Acute fatty liver of pregnancy (AFLP) is a maternal liver disease unique to pregnancy. It is a rare, but serious condition that occurs in the third trimester and carries a significant perinatal and maternal mortality. We describe a case of suspected fatty liver of pregnancy who developed severe symptoms in the postpartum period.

Case report

A 22 year old multigravida presented at 35 weeks of gestation with abdominal pain and reduced foetal movements. Her initial bloods revealed a haemoglobin of 122 g/L and platelet count of 462 x 10^9/L. She was planned for a category 2 LSCS under spinal anaesthesia due to suspected placental abruption. A ROTEM was done pre-operatively which was suggestive of need for fibrinogen concentrate. She was given 4 gm fibrinogen concentrate intraoperatively. She delivered a floppy baby boy who was transferred to the neonatal unit for CPAP. She had an estimated blood loss of 783 ml at the end of surgery.

In the post-operative period, she was noted to have acute liver dysfunction (raised bilirubin, ALP and ALT), acute kidney injury (AKI), coagulopathy (deranged PT and APTT), raised white cell count (WCC) and low blood glucose. An initial diagnosis of AFLP was made based on these parameters and an alternative diagnosis of pre-eclampsia was also considered. After appropriate consultation with the liver transplant unit, she was transfused 2 units of cryoprecipitate, 4 units of fresh frozen plasma (FFP) and 2 units of red blood cells (RBC). She was subsequently transferred to ICU for further management.

During her ICU stay, her issues were abnormal LFT's, high urate and fluctuating mental status which was suggestive of possible hepatic encephalopathy. Treatment was started for hepato-renal syndrome which included N acetyl cysteine infusion, regular vitamin K, gut prophylaxis, anti fungal and IV albumin. She was also initiated on 10% glucose infusion for ongoing hypoglycaemia. In addition, she was noted to have low TSH and low S Cortisol along with high blood pressure (BP) readings, proteinuria and polyuria. Tablet amlodipine 5 mg once a day (OD) was introduced cautiously for her high BP.

An MRI of her brain was done for suspected pituitary insufficiency which revealed a small pituitary haemorrhage without necrosis, while a CT scan of her abdomen and adrenals was unremarkable. She was started on regular hydrocortisone due to her MRI findings.

Early ICU admission, prevention of hypoglycaemia and hypothermia, strict fluid balance, nutrition, regular updates with the family and multidisciplinary team involvement have been the cornerstone in this patient's recovery.

Discussion

Acute fatty liver of pregnancy (AFLP) is a serious maternal illness with significant perinatal and maternal mortality. It has an incidence of approximately one in 10,000 to 15,000 pregnancies.[1] Women presenting with a diagnosis of AFLP typically do so in the third trimester of pregnancy. Its manifestations are nonspecific and include abdominal pain, headache, fatigue, nausea and vomiting. This patient scored 12 points on the Swansea criteria for AFLP.[2]

In addition, patients can present with hypertension, with or without proteinuria. About 20 percent of patients have coexisting haemolysis, elevated liver enzymes and low platelet count (HELLP), while about 20 to 40 percent of patients are also diagnosed with preeclampsia.[3] Pregnant women in the second half of pregnancy with the above mentioned symptoms should be evaluated for acute fatty liver of pregnancy (AFLP), severe preeclampsia and HELLP syndrome as well as other causes for acute liver failure.

Prompt delivery of the foetus initiates early resolution of this life-threatening disease. In addition, specialist advise should be sought early and patients with worsening signs of acute liver failure should be transferred to a referral centre for liver transplantation evaluation.

References

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