The Diagnostic Difficulties of Acute Fatty Liver of Pregnancy: A Case Report

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Background

Acute Fatty Liver of Pregnancy (AFLP) is a rare obstetric emergency, with an incidence of 1 in 7000 to 20,000. Risk factors include nulliparity, twin pregnancies, history of pre-eclampsia, maternal low BMI and male foetal sex.

The diagnostic challenge of ALFP is that it presents with LFT derangement and non-specific symptoms (for example, abdominal pain, vomiting, and malaise). As a result, there is a significant clinical overlap with conditions like pre-eclampsia (PET), and HELLP syndrome.

The mainstay of treatment is urgent delivery. Failure to promptly recognise AFLP can lead to maternal liver failure with encephalopathy, coagulopathy, and renal insufficiency.

Case

A 23-year-old multiparous woman, 34 weeks with DCDA twins was admitted with TPL. She was reviewed for vomiting; she reported a 4-day history of nausea, vomiting, headache and dark urine.
Background: GDM which was well controlled with diet measures. She had no other past obstetric or medical history or regular medications.

On examination
- BP: 124/74
- Abdomen soft, non-tender
- Jaundiced
- Reflexes normal, nil clonus
- CTG: normal baseline rate, variability, accelerations present, nil decelerations

Blood tests were taken. The aetiology of the LFT derangement was not clear, the AKI was presumed to be pre-renal due to her extensive vomiting. She was later noted to be hypoglycaemic on routine BSL. Which raised suspicion for AFLP. She was transferred hospitals for delivery.

On repeat bloods there was evidence of Haemolysis; down trending PLT, Hb, elevated LDH, low haptoglobin, elevated urea. She was delivered by caesarean section the same day for AFLP, with a concern for evolving HELLP syndrome.

Given she had a profound hypoalbuminemia, with a normal urine PCR, the impression was that this presentation was more consistent with AFLP.

Investigations

		+4 hours
Hb	123	111
PLT	175	138
Cr	133	137
Urea	0.6	
bilirubin	100	
Albumin	17	
ALT	513	
AST	403	
GGT	155	
LDH		381
INR	1.2	1.6
PT	17	17
APTT	36	36
uPCR	16	

Outcome

She was admitted to the ICU for 3 days post-delivery. Her recovery was complicated by PPH, pre-eclampsia requiring magnesium sulphate, electrolyte disturbances secondary to fluid shifts, acute kidney injury (Cr 151), and coagulopathy.

On discharge, her LFTs and AKI (Cr 70) improved. and the INR was 1.

Both neonates were discharged home 2 weeks post-delivery.

Conclusion

AFLP is a rare, life-threatening obstetric emergency lead to multi-organ complications or mortality without appropriate treatment. This case demonstrates some of the common complications associated with AFLP.

This case highlights that AFLP presents non-specifically, and as a result has significant clinical overlap with other more common liver disease of pregnancy including HELLP syndrome. In addition, this patient is multiparous which is a risk factor for HELLP, thus adding complexity to the diagnosis of AFLP in this case.

In this case, prompt recognition of hypoglycaemia being consistent with AFLP resulted in positive maternal and foetal outcomes. This highlights that although AFLP is a rare condition, it is important to always consider it as a differential diagnosis.