A Case Report of Acute Fatty Liver of Pregnancy

Dr Lucy Holden[1]
[1]*Department of Obstetrics and Gynaecology, Joondalup Health Campus, WA*

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Background

- Acute fatty liver of pregnancy (AFLP) is a rare but life-threatening obstetric complication with an incidence of 1:7000 to 1:20000.
- The primary symptoms are often non-specific (for example nausea/vomiting, malaise, abdominal pain) and can be confused for other conditions associated with pregnancy such as HELLP syndrome.
- This case report shows how the signs of acute fatty liver can be easily dismissed and highlights the need for a high index of suspicion at all times

Case

- A 30 year old G1P0 at 36+2 weeks gestation presented to the assessment unit with a one week history of vomiting and poor oral intake in addition to a two day history of reduced fetal movements. Her pregnancy had been low risk thus far. She had been seen in antenatal clinic several days prior and had complained of new onset vomiting; she was diagnosed with reflux and prescribed omeprazole.
- Cardiotocography was commenced which showed absent variability with prolonged late decelerations. An emergency caesarean section was promptly performed under general anaesthesia with delivery of a live female infant. The infant was admitted to the special care nursery and the patient was transferred to the maternity ward for post-operative care.
- The patient's vomiting was not investigated until later that evening despite multiple reviews by the medical team throughout the day for maternal tachycardia. Upon review she was noted to be jaundiced and had minimal urine output despite intra-venous hydration. Her abdomen was soft, fundus well contracted, with mild right-upper quadrant tenderness. Maternal tachycardia was noted; the patient was normotensive and remained so throughout her admission. Hypoglycaemic episodes were also noted.
- Bloods were urgently collected and processed including FBC, UEC, LFTs and coagulation profile.
- Based off clinical presentation and pathology results, a provisional diagnosis of acute fatty liver of pregnancy was made.
- The patient was transferred to the high-dependency unit overnight for close monitoring and supportive therapy. The next morning she was transferred to the nearest tertiary centre for further management.
- Findings on abdominal ultrasound were consistent with acute fatty liver.
- A good outcome was achieved for both the patient and her baby. The patient was discharged home after several days and follow-up planned with hepatology and genetics. A formal debrief and review was scheduled for six weeks post-partum. The baby was discharged without issue.

Pathology Results	
Hb	105 ↓
WCC	24.7 ↑
PLT	203
Na	129 ↓
K	4.2
HCO3	19 ↓
Creat	202 ↑
Urea	6.3
eGFR	28 ↓
Bili	150 ↑
ALP	503 ↑
GGT	76 ↑
ALT	156 ↑
Alb	24 ↓
INR	1.6 ↑
APTT	50 ↑
Fib'gen	0.8 ↓

Discussion

- AFLP generally presents in the third trimester. Etiology and pathogenesis remain unclear, although growing evidence suggests a role of defective maternal-fetal fatty acid metabolism.
- The key management for AFLP is delivery of the fetus and supportive treatment in a high dependency or intensive care unit. Delivery of the fetus initiates resolution of AFLP. Failure to promptly diagnose AFLP leads to higher morbidity and mortality rates.
- This case demonstrates a 'near miss' as the patient's presenting illness was only investigated after delay. Firstly, her new vomiting had been dismissed as reflux in antenatal clinic and no investigations performed. Secondly, when she presented to hospital her symptoms were again not investigated despite signs of maternal and fetal compromise. This highlights that despite AFLP being a rare disease it should always be considered as a differential diagnosis and excluded due to potential for adverse outcomes.

References

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