



Emergency cesarean delivery in a patient with acute fatty liver of pregnancy: a case report

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I. Introduction

- Acute fatty liver of pregnancy (AFLP) is a rare, but potentially fatal obstetric disorder characterized principally by varying degrees of hepatic dysfunction and with an onset typically in late pregnancy.
- Microvesicular fatty hepatocyte infiltration (fig. 1)
- Here we present a AFLP case who was successfully managed.

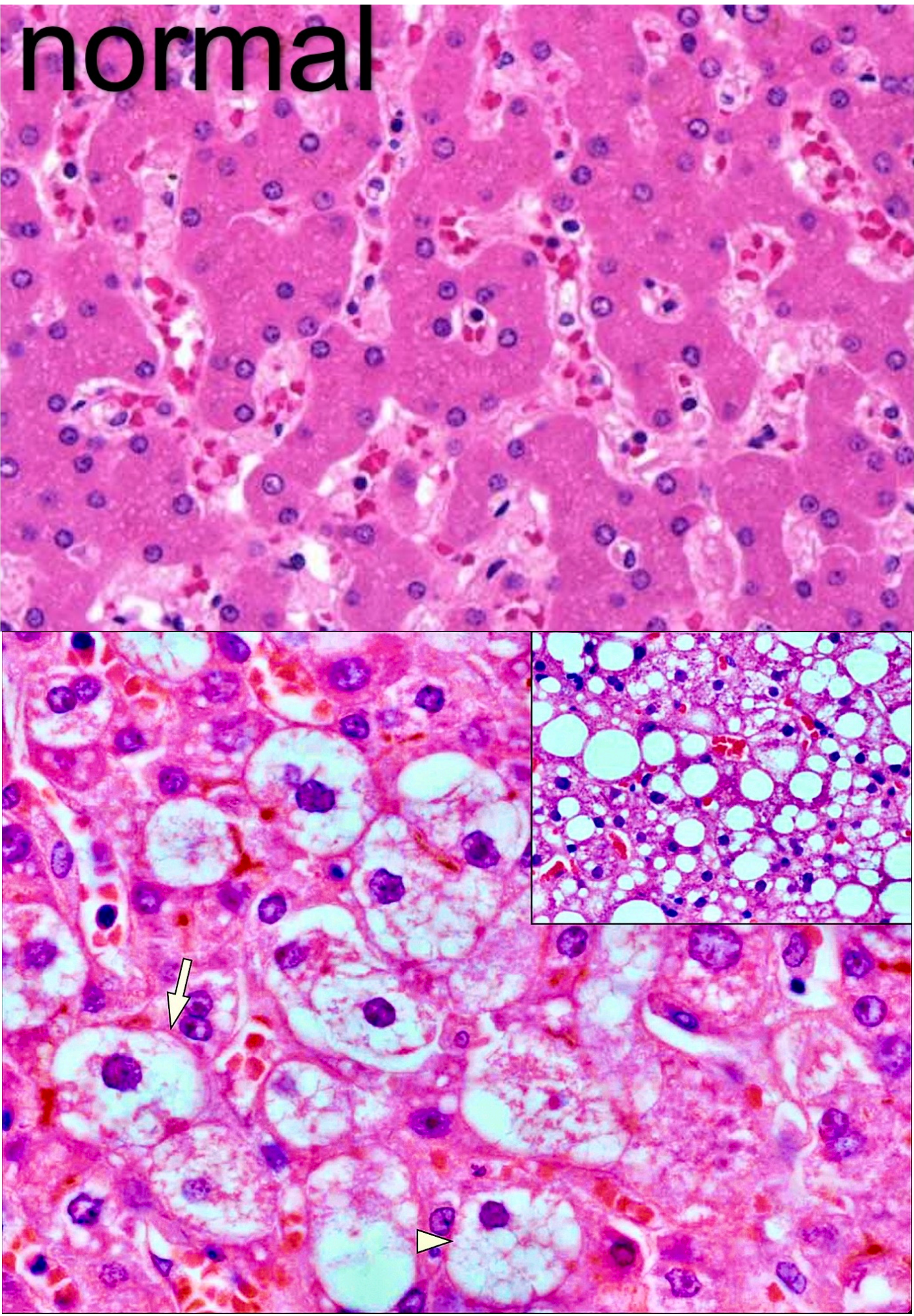


Fig.1 Microvesicular fatty hepatocyte infiltration in patients with AFLP

AFLP

2. Clinical History

- 32-year-old G2P0 female at 37w2d gestation.
- Prenatal medical screening was normal without any comorbidities.
- She was emergently admitted into our hospital with decreased fetal movement for half a day and diarrhea for 2 days.
- On admission, the patient complained of slight abdominal pain with blood pressure of 129/73 mmHg. She denied headache, epigastric pain, visual impairment or pruritus.
- Admitting laboratory study showed significant abnormalities in liver and renal function and coagulation test (Day 0 on table 1).
- Repeated non-stress tests indicated non-reactive fetus.

Table 1: Evolution of liver & renal function, coagulation tests and routine blood tests.

	ALT (U/L) (0-33)	AST (U/L) (0-32)	TBIL (mg/dL) (0-21)	CRE (umol/L) (45-84)	PT (s) (10-14)	PA (%) (75-130)	INR (0.8-1.5)	APTT (s) (23.3-32.5)	FIB (g/L) (1.8-4)	D-Dimer (mg/L) (0-0.55)	HGB (g/L) (110-150)	PLT (*10 ⁹ /L) (100-300)
D0-15	11.20	21.80	6.71	50.60	11.10	92.00	1.04	27.50	3.45	4.39	125.00	156.00
D0	257.00*	235.30	81.25	137.10	17.20	46.90	1.58	42.70	0.72	33.92	129.00	184.00
D0+4h	160.10	152.60	51.58	131.80	18.50	43.00	1.71	55.30	1.21	22.09	93.00	131.00
D0+5h	171.40	163.40	62.65	118.10	19.10	41.40	1.77	70.30	1.43	63.36	112.00	102.00
POD0	195.20	187.00	87.01	121.40	18.60	42.80	1.72	48.90	2.36	43.81	133.00	103.00
POD1	162.00	121.60	98.40	151.60	17.70	45.30	1.63	41.30	1.87	6.75	142.00	116.00
POD4	43.60	33.40	98.54	24.00	13.80	65.90	1.25	37.70	1.87	15.49	128.00	111.00
POD5	28.20	31.40	22.37	48.10	11.30	98.50	1.01	27.10	3.13	0.47	124.00	110.00

*, Red numbers represent values that are significantly higher or lower than normal. D0-15, half a month before emergency cesarean delivery; D0, at emergency admission; D0+4h, half an hour after delivery (4 hours after emergency admission); D0+5h, the end of the surgery (5 hours after emergency admission); POD0, POD1, POD4, POD5, 4 hours, 1 day, 4 day and 5 day postoperative.

ALT, Alanine aminotransferase; AST, Aspartate Transaminase; TBIL, total bilirubin; CRE, creatinine; PT, prothrombin time; PA, prothrombin activity; INR, international normalized ratio; APTT, activated partial thromboplastin time; FIB, fibrinogen; HGB, hemoglobin; PLT, platelet.

3. Clinical Course

- Multidisciplinary consultation: a presumptive diagnosis of acute fatty liver of pregnancy with fetal distress
- Preoperatively, fresh frozen plasma and fibrinogen was initiated.
- Urgent cesarean delivery under general anesthesia with central line, and invasive blood pressure monitoring.
- The newborn male, weighing 3,275 g, with Apgar scores of 8, 9, 10 respectively at the 1st, 5th and 10th minute after birth.
- EBL was 1,200 ml.
- The patient was transferred to the ICU.
- Postoperative analgesia was provided by intravenous patient-controlled analgesia sufentanil. At 16th hour postoperatively, patient exhibited signs of analgesic medication accumulation because of her compromised hepatic and renal function; PCA was subsequently stopped.
- All the laboratory indexes returned to normal on the 5th day postoperatively (table 1).The patient was discharged on the 7th postnatal day with no complication.

4. Conclusion

- AFLP progress rapidly to acute liver failure.
- Early recognition and timely intervention play a critical role in decreasing maternal and fetal mortality.

References:
1.Naoum E, et al. Anesthesiology 2019; 130:446-61.
2.Nelson D. Obstetrics & Gynecology 2021; 137 (3):535-4