

Emergency cesarean for a patient with atypical HELLP syndrome complicated by ruptured subcapsular hematoma

Phillip Callihan MD PhD, Laura Starzenski MD, Daniel Sheeran MD, Brett Elmore MD, Jessica Sheeran MD, University of Virginia



Background:

- Hemolysis, elevated liver enzymes, and low platelet (HELLP) syndrome is a severe condition on the spectrum of hypertensive disorders of pregnancy which can be complicated by DIC, placental abruption, subcapsular hematoma, and hepatic rupture.^{1,2}
- In the case of atypical HELLP syndrome, hemolysis, elevation in liver enzymes, and decreased platelets can occur before or without elevated blood pressures.^{1,2}
- 25% of all HELLP cases occur in the postpartum period.²

1. Sibai BM. Diagnosis, controversies, and management of the syndrome of hemolysis, elevated liver enzymes, and low platelet count. *Obstet Gynecol.* 2004 May; 103 (5Pt 1): 981-91.

2. Hay JE. Liver disease in pregnancy. *Hepatology.* 2008 March; 47: 1067-76.

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Case Events:

- 34yo G2P1001 at 36w1d with PMH of anxiety, migraine HA, and hypothyroidism who presented to triage with a chief complaint of heartburn.
- Pregnancy complicated by previous COVID-19 infection and fetal growth restriction.
- Forty five minutes after arrival: fetal bradycardia developed and emergent cesarean under GA was completed.
- Twelve hours postpartum: despite post-operative TAP blocks, she complained of worsening RUQ pain with associated hypotension.
- RUQ US showed a 14 x 7 x 17.9 cm subcapsular hematoma.
- Emergent angiogram demonstrated foci of bleeding in the liver, which was treated with gelatin sponge particle embolization of right and left hepatic artery segmental branches.



	Hgb	HCT	PLT	LFTs	Coags
L&D Triage	12.4	36.9	122	ALT 166	
8 hours postpartum	9.7	29.8	100	ALT 542 AST434	
20 hours postpartum. RUQUS completed Hypotension, SICU transfer	9.4	29.1	125	ALT1511 AST 1269	Fibrinogen 375 INR 1.0 PTT 27.6
24 hours postpartum. IR embolization	8.0	24.2	155	ALT 2085 AST 1894	Fibrinogen – INR 1.1 PTT 29.1

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Learning Points:

- The presentation of HELLP can be highly variable and when complicated by RUQ pain and hypotension, ruptured subcapsular hematoma should be considered.
- Rapid diagnosis and involvement of an expert multidisciplinary team involving interventional radiology is critical in treating patients with this type of obstetric-related hemorrhage.