

Multisystem Collapse and Fatal Subscapular Liver Hematoma in a Patient with Intrauterine Fetal Demise

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Background

- Subscapular liver hematoma (SLH) is a rare but severe complication of hypertensive disorders in pregnancy, particularly HELLP syndrome, with an incidence of 1–2 per 100,000 pregnancies.¹
- Rupture is rarer, occurring in 1 in 45,000–225,000 pregnancies.¹
- Management of unruptured SLH involves intensive care and occasionally embolization.
- SLH rupture can cause catastrophic hemorrhage and organ failure.

Introduction

- 36-year-old G5P4004 at 32w1d with gestational diabetes, hemoglobin S trait, and advanced maternal age presented with 24 hours of right upper quadrant pain, nausea, and vomiting.

1. Wicke C, Pereira PL, Neeser E, et al. Am J Obstet Gynecol. 2004;190(1):106-112.

Presentation

- Labs showed elevated liver enzymes, thrombocytopenia, hemolysis, and acute kidney injury consistent with HELLP syndrome.
- Ultrasound confirmed intrauterine fetal demise.
- Patient became obtunded, hypotensive, and hypoxemic, requiring aggressive resuscitation.

ICU Admission

- Patient was intubated and started on continuous renal replacement therapy (CRRT).
- Abdominal imaging completed on arrival revealed a SLH with perihepatic hemorrhage.
- Labor induction resulted in uncomplicated vaginal delivery.

Decompensation

- Patient suffered acute desaturation and cardiac arrest 12 hours later
- Exploratory laparotomy revealed 2L hemoperitoneum, liver capsule tears, and bowel injury.
- Cardiac arrest occurred 36 hours after presentation refractory to hepatic artery embolization and surgical intervention due to persistent coagulopathy and hemorrhage



Abdominal Ultrasound with findings concerning for subcapsular hematoma.

Discussion



- SLH management is guided by the patient's clinical stability, the presence of rupture, and the extent of bleeding. Stable hematomas may be managed conservatively, while rupture often requires embolization, laparotomy, or both. ¹ Key considerations include:
 - **Efficacy of Embolization:** Embolization can control bleeding in ruptured SLHs but carries risks like hepatic ischemia and biliary necrosis. ¹
 - **Pregnancy-Specific Factors:** Altered hemodynamics, including increased hepatic blood flow, may influence embolization outcomes.
 - **Guidelines:** ACOG emphasizes individualized care, with surgical intervention often necessary for hemodynamic instability.

1. Green CS, Bulger EM, Kwan SW. Angioembolization for hepatic trauma: Complications. J Trauma Acute Care Surg. 2016;80(3):529-37.