

Subcapsular Liver Hematoma (SCLH) is a rare but life-threatening complication of preeclampsia with severe features and HELLP syndrome.

Pathophysiology

Fibrin deposition within hepatic sinusoids leading to sinusoidal obstruction, hepatic ischemia

Incidence

1 in 67,000 preeclampsia births
1 in 2,000 HELLP syndrome births

Clinical Presentation & Diagnosis

Epigastric vs RUQ pain; abdominal distension; hypotension
Diagnosis usually made prior to catastrophic complications such as hepatic rupture
Markedly elevated aminotransferases; imaging findings consistent with hematoma formation

Management

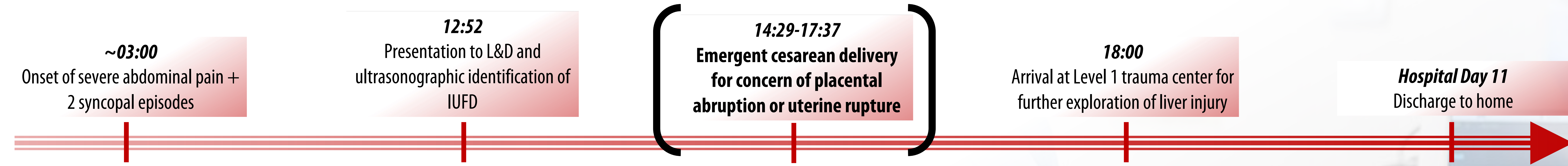
Conservative management in vast majority of cases (blood transfusions, BP control, delivery)
Hepatic artery embolization, surgical exploration and packing, liver transplantation

Mortality Associated with Hematoma Rupture

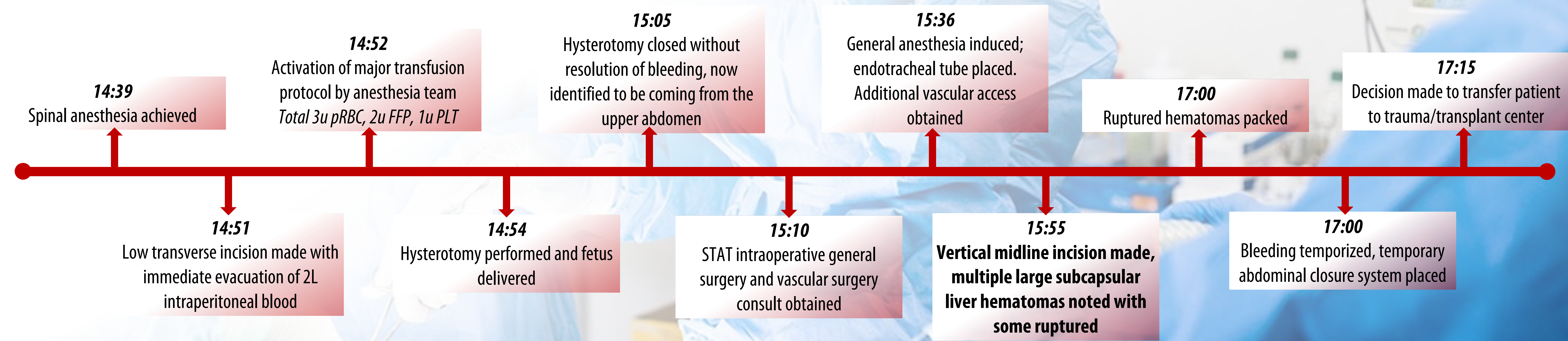
8% maternal mortality
44% perinatal mortality

A 39-year-old G1P0 patient presents to L&D triage with 10 hours of severe abdominal pain. She was found to be pale, tachycardic, hypertensive, and with intrauterine fetal demise.

Global Timeline of Events



Intraoperative Events



Workup for abdominal pain concerning for hemorrhage in late pregnancy should include concern for extra-uterine causes of bleeding, such as liver capsule rupture.

Broaden the differential!

- Hemodynamic instability in pregnancy can be the result of a broad range of pathologies
- Obstetric bleeding (placental abruption, uterine rupture, etc.)
- Extra-uterine bleeding (splenic artery aneurysm, SCLH, etc.)
- Keep in mind that negative bedside ultrasound exams are not 100% sensitive in identifying hemoperitoneum

Numbers can be deceiving.

- Pregnancy leads to a high-flow, low-resistance cardiovascular system.
- Massive blood loss of up to two liters (30-35% of blood volume) can present with normal vital signs
- Hemodynamic instability can be impending and precipitous

Call for help early.

- Unidentified source of massive hemorrhage should necessitate early calls to general surgery, vascular surgery, and/or interventional radiology
- Clear and frequent communication between team members helps facilitate resuscitation

Role of the anesthesiologist.

- Remain adaptable to rapidly changing surgical contexts
- Identify when conversion to general anesthesia is appropriate
 - Acquire blood products early before impending collapse
- Utilize resources such as POC viscoelastic tests to lead targeted resuscitation efforts