

H95 Subcapsular Hepatic Hematoma in a Pregnant Woman With No Prenatal Care: A Case Report

Suzi Dodt, BS, Pinal County Medical Examiner's Office, Florence, AZ 85132; John X. Hu, MD, PhD*, Pinal County Medical Examiner's Office, Florence, AZ 85132*

Learning Overview: The goal of this presentation is to document a rare but frequently fatal complication in pregnant women: subcapsular hepatic hematoma.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by illustrating the important role of a postmortem examination in patient care by: (1) providing autopsy findings and cause of death; (2) raising awareness of the existence of this rare, but often fatal, complication when evaluating etiologies of abdominal pain in pregnant women; and (3) taking proper measures to prevent and treat the complications.

A 35-year-old female, G2P1 (two pregnancies, one birth), who was pregnant at 33-34 weeks gestational age, presented to a local hospital emergency department with sudden onset of severe abdominal pain. The patient was alert upon arrival. She had no prenatal care and denied using drugs. An ultrasound study detected no fetal heart tones or movement. The patient was in distress and presented with no vaginal bleeding. A chest Computed Tomography (CT) with contrast showed "partially imaged suspected hemoperitoneum." Uterine rupture or ectopic pregnancy were considered. An intraosseous line was placed. The patient continued to decompensate, with ultrasound demonstrating free fluid in the abdominal cavity. The patient then experienced sudden cardiac arrest, and resuscitation and emergency cesarean section were started. A stillborn fetus was delivered while resuscitation efforts continued. Upon initial incision into the abdomen, a significant amount of blood was noted, estimated at 1500cc. Fluid and blood were transfused and other aggressive resuscitative measures were attempted with no obvious improvement. The death was ultimately pronounced during surgery.

At autopsy, the liver was covered by a large subcapsular hematoma involving a majority of the diaphragmatic surface and half of the visceral surface. The hematoma measured 24 x 15 x 2cm in dimension. There was a large rupture of the hepatic capsule on the anterior diaphragmatic surface. The hemorrhage extended to the retroperitoneal area, including areas adjacent to the pancreas. No evidence of adenoma or hemangioma of the liver was identified. There were numerous packing cloths and regular cloths present in the abdominal cavity. Microscopically, liver tissue adjacent to the capsule showed intrasinusoidal and periportal infiltrates of neutrophils and lymphocytes with hepatocyte necrosis. Residual hemorrhages were seen in the liver parenchyma. The stillborn fetus was of 34 weeks gestational age and was normally developed with no congenital malformations. No other abnormalities were noted of the decedent or the placenta from the autopsy. The cause of death was determined to be massive hemoperitoneum due to ruptured subcapsular hepatic hematoma. There was no autopsy evidence of severe coagulopathy, liver neoplasm, or liver parenchymal injury. There was no reported history of trauma or recent surgery.

Subcapsular hepatic hematoma is often associated in pregnancy with Hemolysis, Elevated Liver enzymes, Low Platelet count (HELLP), preeclampsia, or eclampsia. Other possible etiologies are trauma, coagulopathy, hepatic neoplasm, or idiopathic etiology. In this case, some of the potential etiologies, such as HELLP, preeclampsia, or eclampsia, could not be properly evaluated due to the lack of prenatal care. Clinical symptoms and signs of rupture in the beginning are often non-specific and mimic signs of gynecological emergencies. These are all confounding factors that make the early diagnosis and treatment of subcapsular hematoma challenging.

Liver Hematoma, Pregnancy, Autopsy