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CASE REPORT

# Surprise in Pandora Box: Spontaneous Intra-abdominal Hematoma in Pregnancy

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## ABSTRACT

Spontaneous intraperitoneal hemorrhage is a rare medical condition associated with high mortalities. It was first described in pregnancy by Barber in 1909. Approximately in an average of 30% of reported cases, the source of bleeding was not identified. Most patients with spontaneous hemoperitoneum frequently presented with acute abdominal pain and might present a wide variety of other clinical presentations.



**Keywords:** Hemoperitoneum, Thromboembolism, Dehiscence, Abdominal, Apoplexy.

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## INTRODUCTION

Idiopathic spontaneous intraperitoneal hemorrhage is a rare and often life-threatening condition, also traditionally known as abdominal apoplexy.[1] Spontaneous hemoperitoneum is defined as the presence of blood in the peritoneal cavity that is not associated with traumas. The cause can be idiopathic or related to spontaneous rupture of either known or unknown pathology. The cause of nontraumatic spontaneous hemoperitoneum can be classified as vascular, hematological, hepatic, splenic, gynecological and inflammatory or coagulation disorder or cryptogenic disease.[2] Even after a comprehensive abdominal exploration, the origin of hemorrhage often remains unclear.

## CASE REPORT

A 24-year-old G3P1L1A1 at 32 weeks gestation with previous lower segment cesarean section (LSCS) referred with suspected abdominal hematoma. She had no history of trauma, bleeding diathesis in the past. Patient was extensively evaluated. Magnetic resonance imaging (MRI) abdomen (Fig. 1) showed two collections just deep to the anterior abdominal wall, one of which is located anterior to the uterine fundus and upper body representing hematomas with focal thinning of the myometrium, just adjoining the lower collection. Growth scan done showed features of intrauterine growth restriction (IUGR) with normal liquor. No intrauterine bleeding or hematoma seen. Mass measuring 9.5 × 5.0 cm seen in the hypochondrium extending into the epigastrium, seen close to the right cornua of the uterus probably abscess or hematoma. In view of the MRI report, LSCS done in the presence of a surgeon. Intraoperatively, dense omental adhesions between the omentum, uterus and the abdominal wall seen. Hemoperitoneum of about 200 ml noticed, 500 mg clots removed from the right paracolic gutter. Blood transfused intraoperatively. Dense bowel adhesions present. After delivery and uterine closure, exploration done, foci of bleeding could not be identified. On postoperative day 18, patient had acute pain in the epigastrium and right hypochondrium, radiating to the right shoulder. Serum lipase and amylase was normal. Contrast-enhanced computed tomography (CECT) abdomen (Fig. 2) done showed uterine fundal dehiscence with a long well-defined walled off midline collection communicating with the endometrial canal tracking cranially to the supraumbilical abdomen. Postoperative day 19, she developed chest pain and pain in the right scapular region. Computed tomography pulmonary angiogram (Fig. 3) done showed acute pulmonary thromboembolism involving the segmental and subsegmental branches of bilateral pulmonary arteries with mild pleural effusion. Bilateral lower limb Doppler done showed no signs of deep vein thrombosis (DVT). Vascular surgeon opinion sought, DVT was ruled out, patient was managed conservatively, was started on therapeutic doses of heparin and was changed to acitrom. Prothrombin time (PT), partial thromboplastin time (PTT) and international normalized ratio (INR) were normal. Patient was evaluated for protein C and S deficiency, which was normal. Patient was stable. Baby discharged with mother. She is on regular follow-up past 6 months. Mother and baby doing well. Repeat ultrasonography (USG) was normal.


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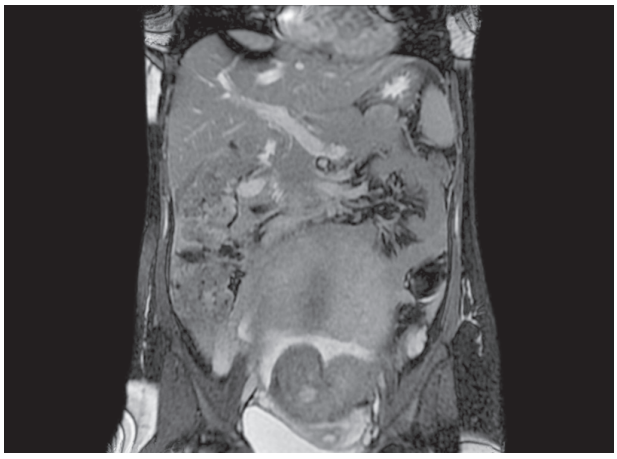

**Fig. 1:** Magnetic resonance imaging abdomen showing hematoma near the uterine fundus in the anterior abdominal wall

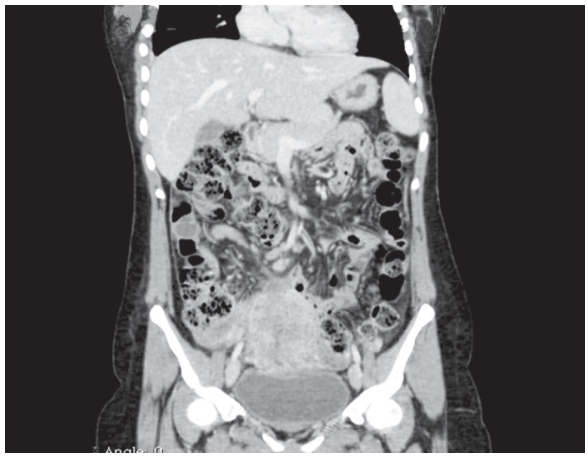

**Fig. 2:** Computed tomography abdomen with contrast showing a collection near the fundus communicating with the endometrial canal

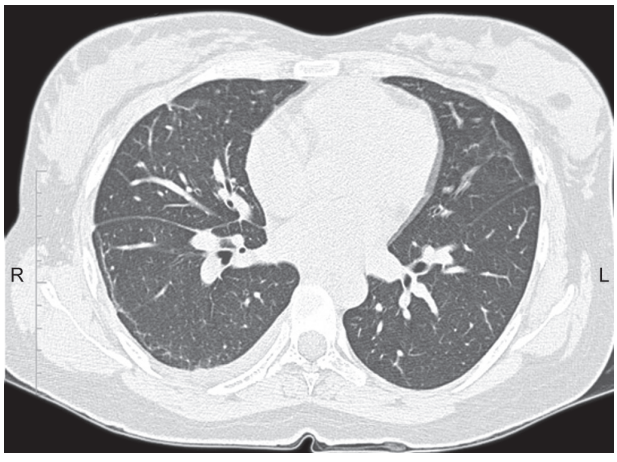


**Fig. 3:** Computed tomography pulmonary angiogram showing mild right pleural effusion and acute pulmonary thromboembolism involving the segmental and subsegmental branches of bilateral pulmonary arteries

## DISCUSSION

Idiopathic spontaneous intraperitoneal hemorrhage is a rare condition, it represents a real emergency. The term is synonymous to a recent term 'abdominal apoplexy'. It may be secondary to gynecological disorders namely ruptures ovarian cysts, ectopic pregnancy, rupture uterus, liver disorders, splenic disorders, inflammatory disorders, such as pseudocysts, vascular disorders, namely aneurysms, varices, hematological disorders or idiopathic. The etiology of spontaneous hemoperitoneum differs in young and elder people. In pregnancy, the common cause of hemoperitoneum is the rupture of splenic artery which occurs due to the structural changes during gestation.[3] Patients with spontaneous hemoperitoneum present with acute atypical abdominal pain with varied clinical presentations. They exhibit hypovolemia. Shock may inevitably follow. Computed tomography plays an important role in the assessment of the location and extent of hemorrhage and in the identification of underlying cause.[4] The appearance on CT depends on the age and location. Clots tend to form near the sight of bleeding thus allows identification of site of hemorrhage (sentinel clock sign).[5] Treatment consists of expeditious delivery of the neonate and embolization of the bleeding vessels if identified.

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