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Xuechuan Han *

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Case Report

Spontaneous Hepatic Hemorrhage in a Normotensive Single Pregnancy: A

Xuechuan Han *, Yan Yu, Shengjun Ma, Yang Fan

Obstetrics and Gynecology, People's Hospital of Ningxia Hui Autonomous Region, Ningxia Medical University, Yinchuan, China.

***Corresponding Author:** Xuechuan Han, Department of Obstetrics and Gynecology, People's Hospital of Ningxia Hui Autonomous Region, Ningxia Medical University, Yinchuan, China.

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Abstract

Spontaneous subcapsular hepatic hemorrhage (SSHH) is a rare but life-threatening complication of pregnancy, most commonly associated with hypertensive disorders such as preeclampsia, eclampsia, or HELLP syndrome. We report an unusual case of SSHH in a 28-year-old primigravida at 36 weeks and 4 days of gestation with no history of hypertension or underlying risk factors. The patient presented with sudden onset severe abdominal pain, nausea, and vomiting. Imaging studies revealed a large subcapsular hepatic hematoma without active bleeding. Emergency surgical exploration confirmed rupture of the hematoma with hemoperitoneum. Haemostasis was achieved ⌈∑∩⌊◊⟨ surgical packing, and the patient was managed in the intensive care unit with blood transfusion and supportive care. She recovered without complications. This case highlights the importance of early recognition of SSHH even in the absence of typical risk factors. Prompt diagnosis, multidisciplinary management, and timely surgical intervention are critical to improving maternal outcomes in this rare condition.

Keywords: spontaneous hepatic hemorrhage; subcapsular liver hematoma; pregnancy complication; normotensive pregnan cy; hellp syndrome; abdominal pain in pregnancy

Introduction

Spontaneous hepatic hemorrhage (SSHH) was firstly described in 1844[1], as an accumulation of blood between the capsule of Glisson and the liver parenchyma. The etiopathogenesis remained unclear until today. The initiating event was considered a fibrin deposition in the hepatic sinusoids that can lead to platelet activation, thrombus formation, occlusion of capillaries, and subsequent hepatic hemorrhage and necrosis. Over 200 cases of SSHH associated to pregnancy were described by the literature, as a prelabor finding in 85% of cases and postpartum in 15% of cases [2,3,4]. Frequently, this condition was usually diagnosed in a context of preeclampsia or eclampsia complicated with HELLP syndrome, but can also occur when there is an association with trauma, blood disorders.

A 28-year-old primigravida was admitted to the labor and delivery suite of another hospital at 36weeks four days of gestation because of abdominal pain. In the morning of admission, abdominal pain developed suddenly; it was sharp, constant, and associated with nausea and vomiting. Emergency medical services personnel were called, and the patient was taken by ambulance to the emergency department of our hospital. She rated the pain at 10 on a scale of 0 to 10, with 10 indicating the most severe pain. It increased with movement. On examination, the temperature was 36.6°C, the blood pressure 110/70 mm Hg, the pulse 110 beats per minute, and the respiratory rate 20 breaths per minute. The abdomen was soft and diffusely tender, particularly on the right side, with no organomegaly; there was minimal peripheral edema. A limited pelvic examination revealed no uterine contractions. the cervix was closed with a reactive fetal heart-rate tracing. Serum levels of total bilirubin, total protein, albumin, amylase, and alanine and aspartate aminotransferases were normal. However, an abdominal ultrasound demonstrated septated fluid collections within the anterior and posterior right hepatic lobes, measuring 13.8×13.8×5.5 cm. No perihepatic fluid collection was observed. No contrast- enhanced CT confirmed the presence of an extensive subcapsular haematoma extending anteriorly (8.0×7.0×7.0 cm), with no radiological evidence of active haemorrhage.

An urgent decision of surgical exploration was made. She was taken to the operating room. The abdomen was entered through a midline incision and intraoperatively; there was significant hemoperitoneum, the uterus was intact. A team experienced in liver trauma surgery was consulted. An incision in the upper abdomen was made for adequate surgical exposure. Intraoperative and a large blood clot adherent to the liver surface was seen. There was also evidence of active blood oozing from the capsular breach on the right lobe of the liver surface of 8–10 cm(see figure1), suggestive of subcapsular hematoma with spontaneous rupture. A pack was applied over the surface to control the bleeding and a drainage tube was kept in the pelvic space. Transfusion with whole blood was started

and the patient transferred to the ICU. She was later transferred to the labor and delivery suite in stable condition. The patient recovered well during the next few days without complications.

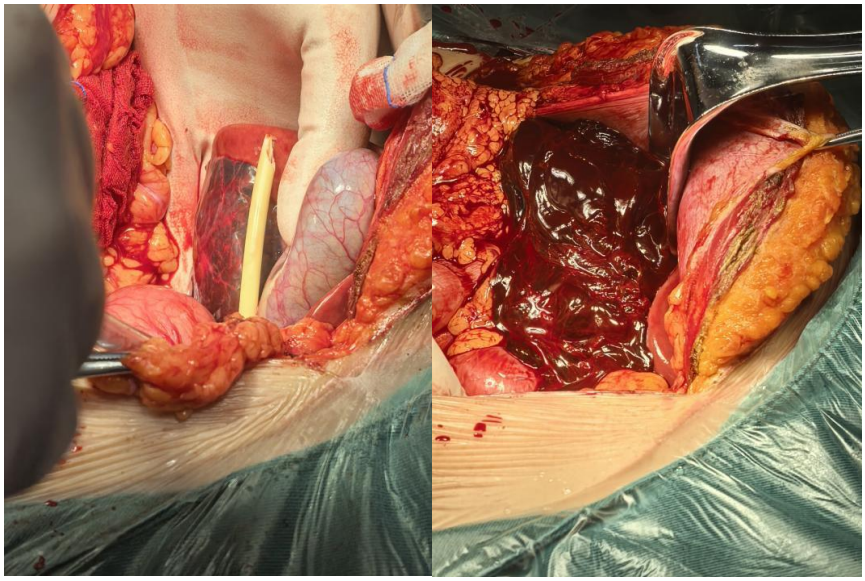

Figure 1A: large blood clot adherent to the liver surface was seen. There was also evidence of active blood oozing from the capsular breach on the right lobe of the liver surface of 8–10 cm.

Discussion

Considered extremely rare, SSHH has an incidence of approximately 1 per 45 000 live births. More than 80% of cases of SSHH have been associated with preeclampsia eclampsia and/or HELLP syndrome [6,7,8]. In any case of suspicion of SHHH before delivery, an emergency cesarean section with exploratory laparotomy is the first line treatment. The clinical management of SSHH is still under discussion [9,10], and there are no official recommendations, although its treatment has been progressively protocolised thanks to publications in the literature. Inouropinions. There is consensus on referring the patient to obstetric referral centres, with the possibility of care by multidisciplinary teams with extensive experience in obstetric anaesthesia and liver surgery. Obstetric and an aesthetic management of the patient is determined by the integrity of the SSHH and the patient's haemodynamic status. Obstetric management, when SSHH is diagnosed during gestation or antepartum, the only definitive treatment that offers the best benefit-risk ratio to prevent progression to severe hepatic haemorrhage is immediate termination of pregnancy by caesarean section, although there are no studies comparing outcomes between caesarean section and vaginal delivery

Conclusions

In conclusion, ruptured sub-capsular hematoma of the liver is a rare but potentially life-threatening complication of pregnancy. High index of clinical suspicion is very important for early recognition and treatment which significantly improves the patient outcomes. Timely surgical intervention, multidisciplinary team approach, on-time availability of blood products, and proper postoperative follow up are crucial to improve the patient outcome.

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