

Ruptured subcapsular haematoma of liver in pregnancy- A case of atypical pre-eclampsia

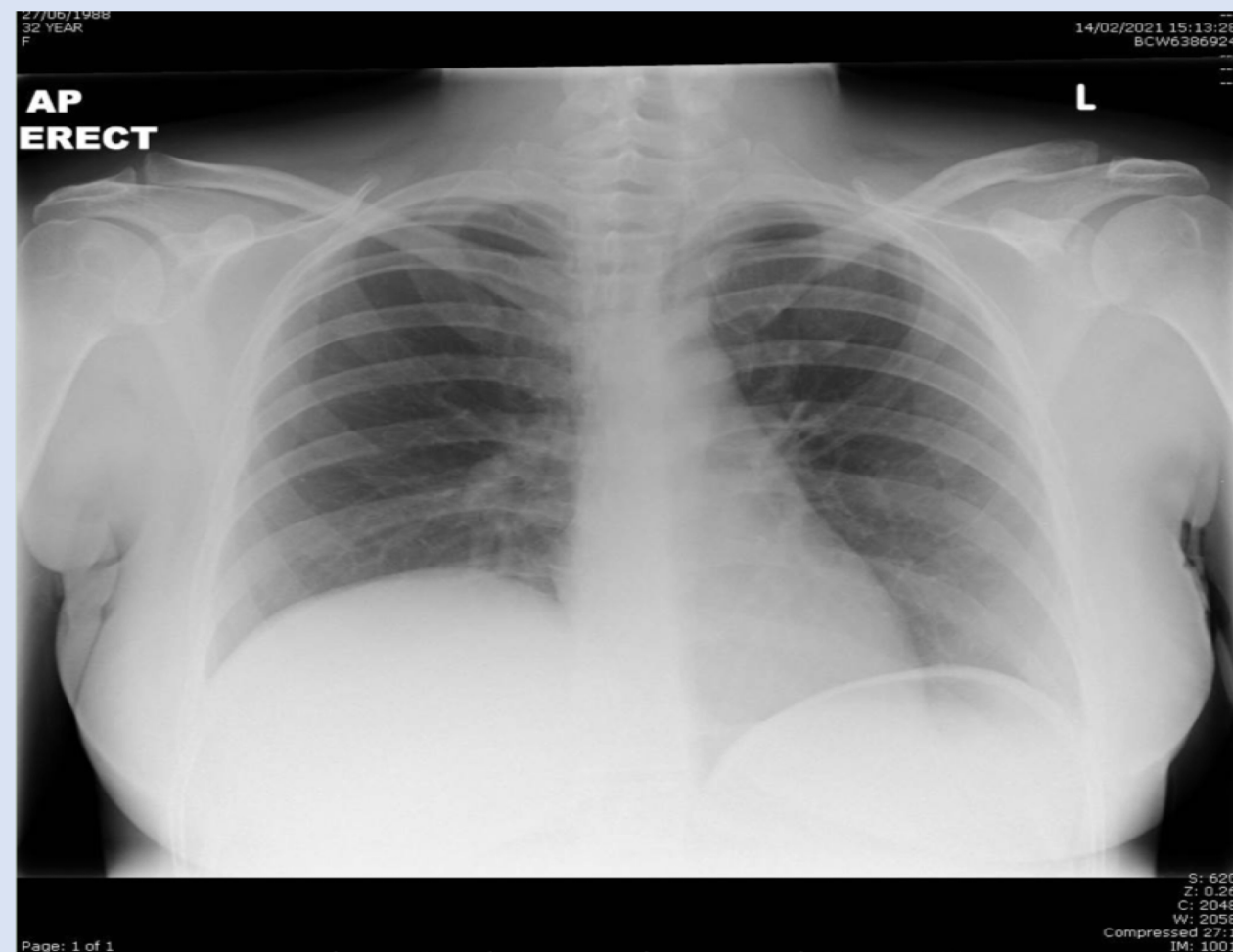
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Introduction

Atypical presentations of pre-eclampsia can cause diagnostic dilemmas, especially when presenting to a non-obstetric department. We present the journey of a women from the accident and emergency department to the Obstetric theatre.

Case Presentation

A 32 year old Primigravida, at 38 weeks' gestation, under midwifery led care, presented to the emergency department with shortness of breath and shoulder tip pain and a 10 day history of vomiting. She had no other symptoms of pre-eclampsia like headache or visual disturbances and urine had no significant proteinuria. Blood pressure was 115/88 mm if Hg, however, she was tachycardic and tachypneic. She was reviewed by emergency department and a respiratory medicine review was requested.

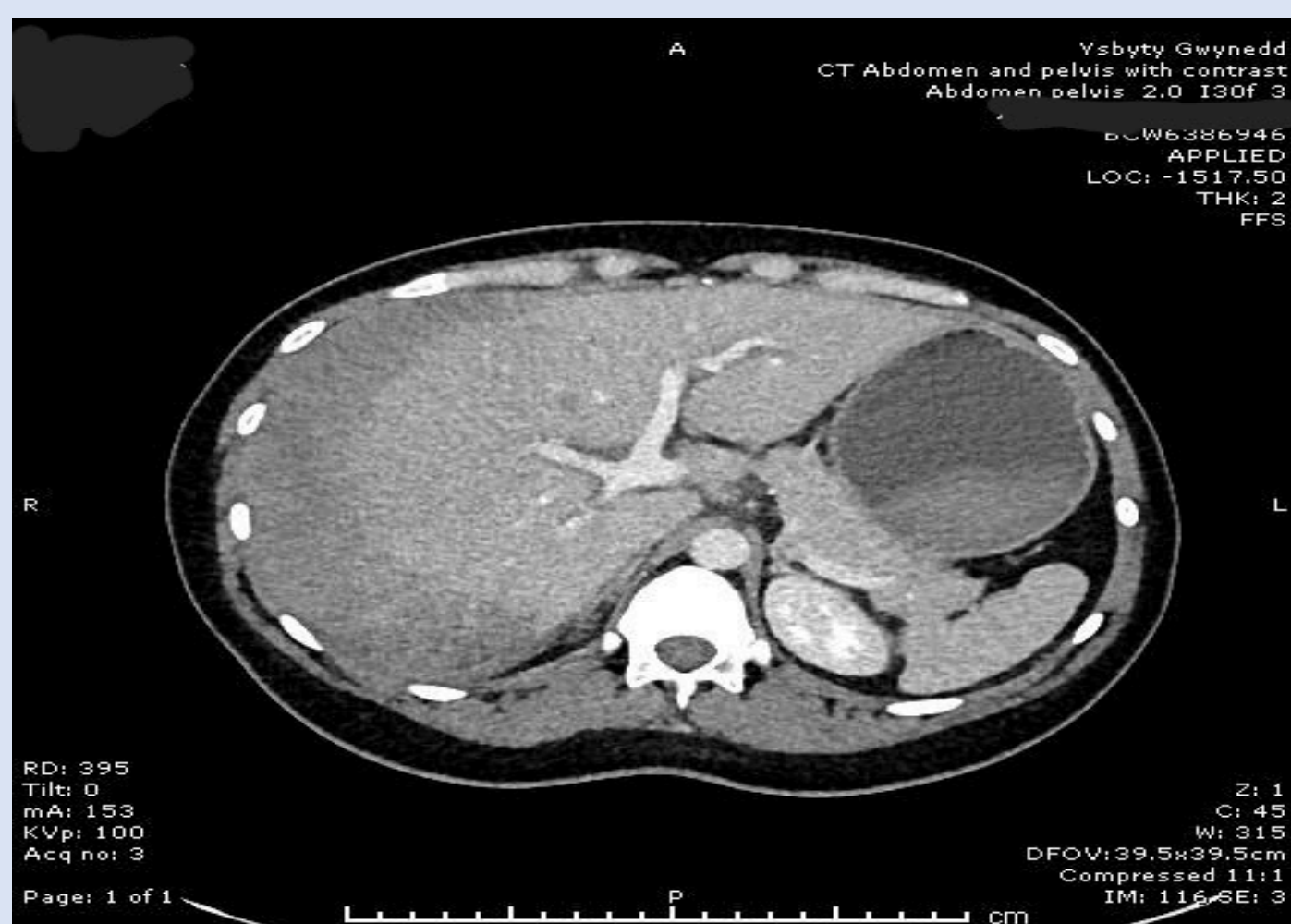


Chest X-Ray – Elevated right hemi-diaphragm and normal looking lung fields

A CT scan was requested. Bloods review showed D dimer-18245 mcg/ml, PT- 9.3 sec, APTT-23.5 sec, Fibrinogen- 6.1 g/l, ALT-462 u/l , LDH-1576 u/l, Amylase -15 u/l, CRP-2, Bilirubin -32 mmol/l and Platelet count of $32 \times 10^9/l$. She was reviewed by the consultant Obstetrician in the A & E. The upper abdominal tenderness was more marked on the left side and the reflexes were normal. HELLP syndrome was suspected and was given antenatal steroids and requested for anesthetic, haematology and surgical input.

Initially, the haematologist felt that the blood film was not consistent with HELLP syndrome and suggested to consider alternative causes for low platelets. But after an hour they found schistocytes in the blood film and confirmed it could be HELLP syndrome.

Further MDT review considered alternative diagnosis like splenic artery aneurysm and plan was made to expediate the CT scan



CT scan

- Sub-capsular haematoma in liver 1.6 cm x 4 cm x 18.2 cm.
- No free air
- Mild amount of fluid tracking along the paracolic gutter, suggestive of Rupture of the capsule with active bleeding

While the CT was being reported the the CTG became pathological. The surgical team contacted Interventional radiology team and liver surgeons at 2 near-by tertiary centers and transferred the images to both sites. While awaiting further plan from tertiary care liver center, there was a prolonged fetal bradycardia and the Obstetrician decided to proceed with an emergency Caesarean section. There was a subcapsular liver hematoma with 1800 mls blood in the peritoneal cavity, which was managed conservatively, by the surgical team as per advice form the liver surgeons from the tertiary centre.

Postnatally, she developed severe hypertension, urine PCR of 1477 mg/mmol and needed multiple anti-hypertensives for few weeks. She made a full recovery and her 6 weeks MRI scan of the liver did not show any evidence of scarring or peri-hepatic adhesions¹.

Discussion

The HELLP (Haemolysis, Elevated Liver enzymes and Low Platelet) syndrome was first described in 1982.² It occurs in 0.17–0.85% of pregnancies. Cases of hepatic rupture in pregnancy are rare, with a reported incidence ranging from 1 in 45,000 to 1 in 225,000 deliveries, but it carries maternal mortality rates of 60–86%.² Delivery of the fetus and placenta after stabilising the mother remains the corner-stone of management, as in any other case of severe pre-eclampsia

Given the rarity of the the condition, its not always possible to make a clinical diagnosis of hepatic capsular rupture. Inputs from the wider MDT is important, however the Obstetrician remains the team leader and should make the appropriate management decisions, considering the full clinical picture.

The blood pressure can be low when there significant concealed blood loss, as in this case. The clinical presentation with predominant respiratory symptoms was misleading, however the abnormality in the chest x-ray prompted the CT scan, which helped the team to prepare for the blood loss. The prompt decision to perform a caesarean section in a women with suspected bleeding from the liver can be challenging, especially when no liver surgeon or appropriate interventional radiology support is available locally.

Most cases can be managed conservatively. Various techniques are described in the literature including perihepatic packing, fibrin gluing, hepatic artery ligation or embolisation, suture ligation of the damaged liver tissue, hepatic lobectomy and orthotic liver transplantation⁴

References

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