

Spontaneous Rectus Sheath Haematoma in Pregnancy

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Summary

Bleeding into the rectus sheath is an uncommon but a well-recognised condition that mimics several other diagnoses of acute abdomen. A wide range of etiology has been proposed in association with this condition. It is often self-limiting, but can lead to unnecessary laparotomy if the diagnosis is not recognised.

Key Words: Rectus, Haematoma, Pregnancy

Introduction

Rectus abdominis muscle sheath haematoma is an uncommon but a well-recognised cause of an acute abdomen¹. The bleeding usually results from rupture of the epigastric vessels or less commonly from a tear of the rectus abdominis muscle fibres happening spontaneously or as a result of trauma². Conditions that raise intra-abdominal pressure such as pregnancy are among its usual causes¹. These haematoma are self-limiting and high index of suspicion is required in order to prevent unnecessary surgery especially in pregnant women^{1,3}. The usual presentation is a sudden onset of excruciating abdominal pain after a minor trauma mimicking peritonitis with presence of a vague abdominal mass apart from the gravid uterus. Hence, there is tendency for the attending clinician to perform surgery. We present a case of spontaneous rectus sheath haematoma in the third trimester of pregnancy

that was accurately diagnosed and managed conservatively with satisfactory outcome.

Case Report

A 34-year-old Malay lady who was 29-week pregnant presented with sudden onset of severe left lower quadrant abdominal pain after a bout of sneezing. The pain was accompanied by a mass rising from the left iliac fossa along with nausea and sweating. There were no other significant bowel or urinary symptoms. No significant past medical or drug histories were of note.

On arrival at the hospital, she was distressed with pain. Her temperature was 37.5°C with a heart rate of 110 beats per minute but the blood pressure was 130/80mmHg. Abdominal examination revealed a large (10cm X 8cm), tender and firm mass, occupying the whole of the

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CASE REPORT

left side of her abdomen, displacing the gravid uterus to the right. The mass was fixed to the abdominal wall and did not move with respiration. The medial border of the mass was palpable and was clearly separated from the uterus. Initial blood investigations revealed haemoglobin level of 10.3 g/dl, white cell count of $19.5 \times 10^9/l$, and platelet count of $350 \times 10^9/l$. All other routine blood parameters including coagulation profiles were normal.

She was admitted under the care of an obstetrician who suspected her of having either a uterine rupture or a placental abruption. An ultrasonography performed subsequently failed to ascertain the true nature of the swelling. In view of potential premature foetal delivery, a CT scan was arranged to rule out other surgical conditions that mandate surgery. This revealed a 9.3 x 8.3 cms haematoma within the left rectus sheath (Fig.1).

She was treated expectantly with close monitoring of her vital signs, fetal movements and daily haemoglobin levels. Twice daily abdominal examination did not show any signs of worsening haematoma. Two days later, she had a drop in the haemoglobin to 7.5 g/dl, which was corrected with blood transfusion. She remained stable subsequently, with no evidence of expansion of the haematoma.

The mass progressively reduced in size over the next seven days. She was discharged after the pain resolved. Follow-up ultrasonography performed 4 weeks later, showed a marked reduction in the haematoma size to 2.3 x 1.5 cms. She was discharged surgically and later had a spontaneous vaginal delivery at 37-week gestation.

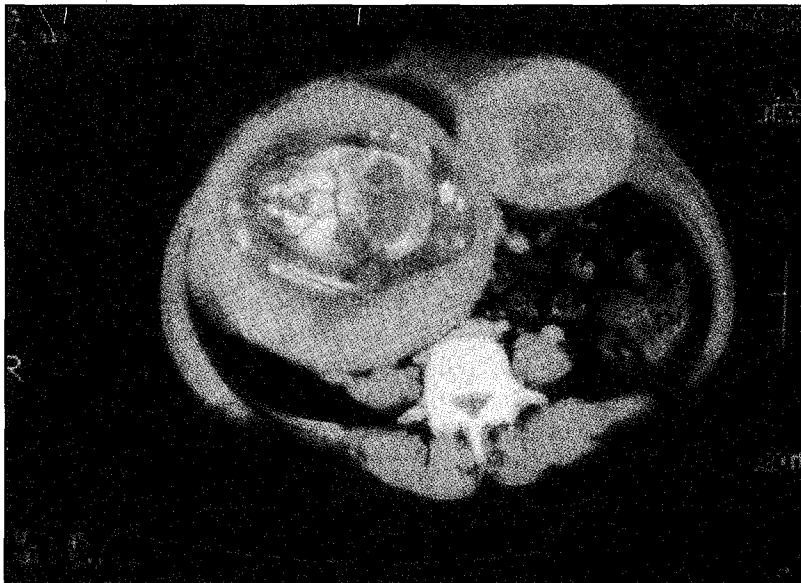


Fig. 1: CT shows left rectus sheath haematoma displacing the gravid uterus to the right

Discussion

The rectus sheath haematoma rarely occurs in pregnancy and its diagnosis can be difficult especially during the third trimester where other acute obstetric and surgical abdominal conditions occur more commonly. Among the causes of these haematomas are direct trauma to atherosclerotic vessels or spontaneous bleeding predisposed by coagulation or collagen disorders and in patients with anti-coagulant therapy. In these latter groups, haematoma may develop after a mere straining, coughing or sneezing. This occurs as the vessels fail to adapt the sudden changes of the rectus muscles during contraction and relaxation. In addition, during pregnancy, spontaneous haematoma occurs when the abdominal distension results in stretching and tearing of the epigastric vessels^{1,2,3}.

Collection of haematoma usually occurs in the lower part of the abdomen^{1,2}. This is due to the fact that the muscles are devoid of their posterior sheath below the umbilicus. Because of the direct contact with the peritoneum posteriorly, haematoma often causes peritonism and hence confusing the attending obstetrician of potential pregnancy related complications such as uterine rupture or placental abruption.

Abdominal ultrasonography has been shown to be a useful tool in diagnosing rectus sheath haematoma³. However, it is limited by not being able to give a conclusive and detailed picture about the nature and the extensiveness of the

condition. Although ultrasound examination is good in detecting placental related and surgical conditions, a CT scan should sometimes be considered in the event of diagnostic dilemmas³. The hazards that CT scan could bring towards the foetus although trivial should of course be born in mind.

Most cases of rectus sheath haematoma resolve spontaneously^{1,2,3}. Conservative management with bed rest and appropriate analgesia is the treatment of choice. Haemoglobin levels and haematoma size monitoring is required during hospital stay because extravasation of blood forming haematomas may lower an already physiologically disturbed haemoglobin level in late pregnancy. In addition to these, for pregnant women, foetal well being should be monitored. The role of surgery in this condition has been confined to unstable patients in whom there is difficulty to control the haemodynamic status or those with complications such as progression of the haematoma, rupture into the peritoneum and infection^{1,2}.

In conclusion, a high index of suspicion on the part of the attending clinician is required to diagnose spontaneous rectus sheath haematoma occurring in pregnant women. This can be achieved through careful clinical assessment aided by suitable radiological assessments. Accurate diagnosis can prevent unnecessary risks that surgery could bring to both the mother and the foetus.

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