Case Report

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Case of Antenatal Splenic Rupture: Managed Conservatively

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ABSTRACT

Splenic laceration antepartum or postpartum is a rare, frequently misdiagnosed and potentially catastrophic pathology that can lead to high maternal and fetal mortality and morbidity. It is therefore, imperative that a differential diagnosis of spleen related pathology or event as in splenic rupture or splenic artery aneurysm should be kept in mind in any woman presenting with upper abdominal pain or in shock during pregnancy.

Keywords: Haemoperitoneum, Postpartum, Splenic laceration, Thalassaemia minor

CASE REPORT

A 35-year-old, booked compliant patient, known case of Thalassaemia Minor, presented at 39 weeks with lower abdominal and left rib pain for one week. Her vitals were stable, fetal heart sound was130-140 beats per minute/regular and she was in early labour. Patient was left for spontaneous progress of labour and since, the rib pain resolved after an analgesic it was suspected to be myalgia or costrochondritis. She progressed well spontaneously and delivered alive baby boy of 3.1 kg approximately 12 hours after admission. The left side rib pain persisted, temporarily resolving on analgesics and spreading bilaterally over a period of six hours postpartum. Her vitals continued to be stable throughout. Chest X-ray was normal. However, after about 12 hours of delivery she developed abdominal distension which on examination was gaseous with no palpable free fluid. Her Hb was 9 gm% with stable vitals, and hence, was managed as paralytic ileus. The following morning there was significant free fluid clinically, with her vitals being stable and USG showed moderate free fluid with all organs including uterus, spleen, liver normal. Her Hb had fallen to 7 gm% from 9 gm% overnight. She received two units of blood in view of the abdominal collection as well as the fall in haemoglobin from 7 gm% to 5 gm% by the same day evening. CECT with angiography the next day showed haemo-peritoneum, non-enhancement of splenic vein suggesting either a thrombosis or spasm, mildly enlarged spleen of size 13 cm with an area of hyper-density in the anterior aspect suggestive of a focal bleed and postpartum uterus. Since, her vitals were stable after the blood transfusion with no signs of ongoing bleeding, decision for laparotomy was kept on hold and conservative management continued in the ICU with vital, urine output and abdominal girth charting.

Patient's vitals continued to be stable, abdominal distension started reducing and by the third postpartum day, she was symptomatically much better. Therefore, we continued with conservative approach.

The patient is doing well on follow up. Was advised thrombophilia screen but wished to get it done at a later stage or at a higher centre. The couple has been counselled about the possibility and risk of a repeat recurrence of a similar episode.

DISCUSSION

Spontaneous splenic rupture during pregnancy is a rare clinical event [1]. It often occurs in pre-existing pathologies such as splenic artery aneurysm, Thalassaemia or infectious aetiologies such as malaria, typhoid or infectious mononucleosis and most commonly as a result of trauma [2]. Any rupture in a normal spleen in the absence of the above pathologies is deemed to be a spontaneous rupture, the aetiology of which remains speculative at best [3].

It is more common in the third trimester, but some cases of rupture have been known to occur in the postpartum period also [4]. Splenic rupture is deemed spontaneous when all other causes like antecedent trauma, systemic disease or gross pathology have been ruled out and splenic parenchyma, vasculature and capsule are normal macroscopically and histologically [3]. Spontaneous rupture may be caused due to torsion of the spleen as a result of increased motility, collaterals' obstruction or portal vein thrombosis and splenic vein spasm leading to congestion. Though the patient was a case of Thalassaemia minor, but CECT suggested either a splenic vein thrombosis or spasm. It is quite possible that the mild increase in size must have been because of the venous spasm or thrombosis. We can further speculate that this inciting venous pathology must have occurred when the patient initially presented in latent labour with left rib pain, the bleed must have started a few hours later more so post-partum because the progress of labour was uneventful. FHS was maintained throughout and her condition seemed to have worsened only a few hours post-partum. And thereafter, whatever bleeding occurred fortunately stopped on its own and the patient stayed compensated not requiring any surgery. It has been suggested that the physiological splenic enlargement and increased blood volume during pregnancy in addition to the trauma of parturition could cause spontaneous splenic rupture. However, the aetiology of spontaneous postpartum splenic rupture remains speculative at best. The definitive management of splenic rupture is splenectomy with the requisite vaccine cover. However, since the patient did well on conservative management we were able to avoid surgery.

Spontaneous haemoperitoneum during or after pregnancy can have a wide array of causes with overlapping symptomatically ranging from the common antepartum haemorrhage to uterine rupture to uterine varicosities rupture to liver/spleen pathologies [4]. Therefore,

it is imperative that a differential diagnosis of either splenic rupture or splenic vessel aneurysm/thrombosis be kept in mind while working up a case of haemoperitoneum.

CONCLUSION

Splenic rupture in pregnant women is a difficult diagnosis to make. Nevertheless, failure of the same can prove fatal for both mother and fetus. A successful feto-maternal outcome depends on high index of suspicion, immediate surgical intervention, multi-disciplinary approach and good postoperative care.

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