Spontaneous Postpartum Subcapsular Haematoma of the Liver

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SUMMARY

A case of spontaneous postpartum subcapsular haematoma of the liver is presented. Thus far there have been 54 reported cases in the literature and this is the 17th survivor. Our case is unusual in that the diagnosis was made pre-operatively, because of the classical presentation with signs of pre-eclampsia, shock, haemoperitoneum and a mass in the upper quadrant of the abdomen.

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HISTORY AND PHYSICAL FINDINGS

A 40-year-old Black para 10, was referred to our Gynaecological Unit from an outlying hospital where she had delivered a macerated, stillborn fetus vaginally, 3 days previously. On the first day after delivery she collapsed and required 3 units of whole blood. The following day she collapsed again and there was evidence of haemoperitoneum.

On arrival at the Casualty Department the patient was pale (haemoglobin concentration 8,5 g/100 ml). Her blood pressure was 180/120 mmHg, pulse rate 120 beats/minute and the urine contained 1+ of albumin.

The abdomen was grossly distended with intraperitoneal free fluid, which proved to be blood on paracentesis. A palpable, tender mass associated with upper abdominal tenderness and voluntary rigidity was present in the right upper quadrant of the abdomen. Her lower abdomen was normal and the uterus freely mobile and there was no evidence of vaginal bleeding.

A diagnosis of a haemoperitoneum, caused by either a ruptured uterus or a ruptured liver, was made.

COURSE AND MANAGEMENT

The patient was sent directly from the Casualty Department to the operating theatre where she was resuscitated on the operating table prior to laparotomy. The presence of hypertension rendered central venous pressure monitoring an important guide to the blood replacement, and as soon as the central venous pressure had reached 10 cm of water, the patient was anaesthetised and a laparotomy performed. A lower midline incision was made. At laparotomy the peritoneal cavity contained about 4 litres of blood but there was no rupture of the uterus. On exploring the abdomen a large haematoma of the liver was found. In order to obtain adequate exposure the incision was extended to the upper midline. The haematoma had avulsed Glisson's capsule from virtually the whole of the right lobe of the liver, but there was no obvious rupture of the liver. The left lobe had many subcapsular haemorrhages. The blood clots were removed from the peritoneal cavity and a biopsy specimen was taken from the liver. Because of a generalised ooze from the raw area over the right lobe with no distinct laceration to be sutured, the raw area of the liver was packed with Sterispon to promote haemostasis, and two corrugated rubber drains—one in the right subphrenic space and the other in the pouch of Douglas—were left *in situ*, and the abdomen was closed. At this stage the patient had received 8 units of blood, the central venous pressure was 11 cm of water, the blood pressure 110/70 mmHg and the pulse rate 100 beats/minute.

Except for a slight fall in haemoglobin concentration, requiring blood transfusion on the second postoperative day, the patient made an uneventful recovery and was discharged from hospital on the tenth postoperative day and is at present well.

The histology of the biopsy specimen showed the classical features seen in the pre-eclampsia/eclampsia syndrome, as well as areas of frank haemorrhage into the liver tissue.

DISCUSSION

Subcapsular haematoma of the liver with or without an associated rupture of the liver is a rare complication of pregnancy. Abercombie reported the first case in 1844. The last recorded case is that of Owen and Kandalaft[1] who claimed theirs to be the 53rd reported case and only the 16th survivor. The present case is therefore the 54th recorded and the 17th survivor. In South Africa only 4 previous cases, 1 of whom survived, have been reported.

The pathogenesis and clinical presentation of this condition have been adequately reviewed and do not warrant repetition here.[2-4]

It is rare for the diagnosis to be made prior to laparotomy. This is only the second of the recorded cases in which the diagnosis was made clinically (the other case being that of Salzman and Mulhary[5]). This is probably due to the fact that the patient presented in a classical

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manner with signs of pre-eclampsia (the evidence of association varies from 76%[3] to 81%[2]), sudden onset of shock and collapse, haemoperitoneum and a tender mass in the upper quadrant of the abdomen. In addition, the patient was of high parity (94% of the recorded cases have been in patients of high parity), and the age of 40 years was also in keeping; Notelovitz and Crichton[2] found the average age among reported cases to be between 21 - 43 years with an average of 35 years.

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