

IDIOPATHIC SPONTANEOUS HAEMOPERITONEUM IN THE THIRD TRIMESTER OF PREGNANCY

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SUMMARY

Spontaneous haemoperitoneum in pregnancy, more especially idiopathic ones are rare and can be life threatening. We present a case of a 30 year old pregnant woman who at 29 weeks gestation developed spontaneous haemoperitoneum. An exploratory laparotomy was done which did not reveal the source of the bleeding. She subsequently had conservative management as an inpatient until term when she had elective caesarean section. A review of the literature was undertaken.

Keywords: idiopathic, spontaneous, haemoperitoneum, third trimester, pregnancy

CASE REPORT

Madam B.A, 30 years old woman gravida 3 Para 1+1 reported at the Ridge Hospital in Accra with a history of lower abdominal pains and painful micturition of two days duration. She admitted to frequency and urgency. All other systemic enquiries were normal. Her previous general medical history revealed no disease, surgery or drug allergy.

Her obstetrical history revealed a gravida 3 para 1+1 spontaneous abortion at 2 months gestation and was 5 months pregnant. She had had a spontaneous vaginal delivery at term 5 years prior to presentation. The antenatal, delivery and post partum course of the said pregnancy were uneventful.

On examination, she looked well; she was afebrile and was not pale. Her pulse rate was 78 beats per minute and a blood pressure of 130/80mmHg. The fundal height was 22 centimetres and she had bilateral renal angle tenderness. There was no evidence of free fluid in the abdomen. The fetal heart rate checked with a doppler was 152 beats per minute. A provisional diagnosis of Bilateral Pyelonephritis in Pregnancy was made. She was admitted and a blood sample for full blood count and a urine sample for urinalysis and culture were taken.

She was started on intravenous cefuroxime and oral paracetamol treatment pending the laboratory results.

Her laboratory investigations indicated a haemoglobin of 10.5g/dl, total white blood cell count of $4.5 \times 10^9/L$ with a differential of 73.9% - neutrophils, 19.4% - lymphocytes, 5.4% - monocytes, eosinophils - 0.8% and basophils - 0.5%; platelet count was $234 \times 10^9/L$. The urinalysis was normal and the urine culture did not grow any bacteria. However, she was made to complete a week's course of cefuroxime.

An abdominal ultrasound scan done a week after admission was reported as follows: single intrauterine pregnancy, fetal heart activity is present, normal liquor volume, the placenta is anterior, the average gestational age is 24weeks, and the internal os is opened with membranes bulging through it. She had a Rescue McDonald's cervical cerclage suture placed without any complications and was kept on admission. Her general condition was satisfactory and she remained well on admission except occasional complaints of flank pains.

At 29 weeks gestation she complained of sudden onset of severe abdominal pain and feeling faint. She denied any uterine contractions, vaginal bleeding, loss of liquor or any traumatic event. Examination revealed she was very pale with a weak pulse of 118 beats/minute, blood pressure of 80/40mmHg and respiratory rate of 22 cycles/min. The abdomen was distended and tender with no rebound tenderness or guarding. The uterine fundal height was 30cm and corresponded to the gestational age. Vaginal examination revealed a long cervix with the os closed. There was no blood on the examining finger. Immediate resuscitation using two wide bore intravenous cannulae with crystalloids was started.

A foetal cardiotocograph done showed a reactive pattern. An urgent abdominal ultrasound scan showed an intact pregnancy and free peritoneal fluid which was confirmed to be blood by paracentesis under ultrasound

guidance. A provisional diagnosis of ruptured uterus was made and she was sent for emergency exploratory laparotomy under general anaesthesia. The haemoglobin checked was 5.2g/dl.

The abdomen was entered through a midline incision which initially extended from the suprapubic region to midway between the umbilicus and the xiphisternum. There was massive haemoperitoneum with blood clots. Initial examination showed the uterus to be intact. All the haemoperitoneum and clots were evacuated. Careful examination of the uterus again showed it was intact and no bleeding points could be identified in the ovaries and their associated venous plexuses, the pouch of Douglas or the other pelvic organs.

The only abnormality found was a well defined dark mass in the ampullary region of the left fallopian tube. The mass was about 5mm in diameter, had a smooth surface and was intact. There was no bleeding from the mass itself or the fimbrial end of the fallopian tube.

The abdominal incision was extended to the xiphisternum. The liver, spleen, the bowels and their mesenteries were examined which were all found to be intact. At that point a Principal Medical Officer with very rich experience in abdominal surgery was called in to help unravel the source of the bleeding. Despite further careful examination no bleeding point could be identified. The mass in the fallopian tube was therefore removed for histology. A drainage tube was left in the pelvis and the abdominal incision closed. The estimate of the haemoperitoneum was about 3500ml. She was haemotransfused with 4 units (2000ml) of whole blood.

She made remarkable recovery. The drainage tube did not drain any blood and was removed on the second post operative day with only minimal drainage of straw coloured fluid. She was put on broad spectrum antibiotics. Magnesium sulphate for tocolysis was used for the first two days after surgery. She was also given a course of dexamethasone within the first 48 hours of surgery.

She was managed subsequently as an inpatient with serial ultrasound scans to assess the foetus. The pregnancy remained uneventful and at 37 completed weeks of gestation she had an elective caesarean section.

The findings were a live male baby weighing 3.3kg with Apgar scores of 6 and 9 at 1 minute and 5 minutes respectively. The placenta was fundal. No abnormality was detected. Both mother and baby were discharged home on the fifth postoperative day and followed up until six weeks post partum.

Histopathology report

The histopathology report was received later and was reported as follows: Organ - left fallopian tube. Received a tubular structure with a bulbous end. It is 6.0 X 2.5mm. The outer covering is smooth. The cut surface is variegated with light brown, dark areas filling the lumen. Microscopy: Sections show haemorrhage, fibrin, haemosiderin laden macrophages, decidua and a necrotic fetal part. Consistent with chronic leaking ectopic tubal gestation.

DISCUSSION

Spontaneous haemoperitoneum in pregnancy is rare and can occur in the second half of pregnancy, in labour and sometimes in the early postpartum period. It presents with abdominal pain which could be acute or subacute.¹ The diagnosis is difficult and is made retrospectively after laparotomy.²

Madam B.A had no fever at presentation and both the urinalysis and the urine culture were normal. In addition she had complained of recurrent episodes of mild loin pain before it became severe with the associated faint feeling. It is possible that her symptoms and signs were due to intermittent leakage of blood from an unknown source into the peritoneal cavity. Her presentation then could be described as an acute-on-chronic intra abdominal haemorrhage.

Reported causes of spontaneous intra abdominal haemorrhage in the second half of pregnancy include endometriosis³, placenta percreta⁴, spontaneous rupture of uterine vessels^{5,6}, spontaneous rupture of varicose veins on the surface of the uterus⁷ spontaneous rupture of a previously unknown scarred uterus⁸ or could be idiopathic.²

Even though the histopathology report suggested a chronic leaking tubal gestation, we do not think it was the source of the massive haemoperitoneum. At laparotomy chronic leaking ectopic pregnancies are usually associated with haematocoele and adhesions between the ectopic pregnancy and the surrounding tissues. In this case there was nothing of that sort. In addition the finding of a smooth outer covering (both from surgeons and pathologist) is not consistent with a chronic leaking ectopic gestation.

It is possible Madam B.A had heterotopic pregnancy with the tubal pregnancy resolving on its own and remaining as the small mass that was removed at surgery. It is known that some ectopic pregnancies can resolve on their own.⁹ We therefore treated the source of bleeding for the massive haemoperitoneum as unknown. It has however been said that even in cases where the source of the bleeding cannot be

demonstrated, it is usually as a result of spontaneous rupture of a branch of the celiac axis.¹⁰

The differential diagnoses include uterine rupture; abdominal pregnancy; ruptured appendix; haemolysis; and rupture of the liver or spleen or its vasculature.⁵ One should also bear in mind other causes of acute abdominal pain such as acute appendicitis, cholecystitis, ruptured abdominal viscera, degenerating uterine fibroids, urinary tract infections, and round ligament pain.¹¹

The management of spontaneous haemoperitoneum in pregnancy is case dependent. In preterm cases where the bleeding points are successfully handled, there is a place for conservative management till term.^{1,3} We decided to manage Madam B.A conservatively because she was remote from term and even from 34 weeks when we expect lung maturity would have taken place. Even though we could not identify the source of the bleeding and hence deal with it, we felt whatever caused the bleeding had resolved spontaneously.

Cases with severe endometriosis in which haemostasis is difficult to achieve may require hysterectomy.⁴ In cases of placenta percreta classical caesarean section and hysterectomy may be required. Bilateral ligation of the uterine and uteroovarian vessels before undertaking the hysterectomy will help minimise blood loss.⁴

Magnesium sulphate for tocolysis was used for the first two days after surgery. Even though some have discredited magnesium sulphate for tocolysis¹² it was used in this instance as that was the only available option. She was given the dexamethasone to enhance foetal lung maturity in case there was the need to deliver her before 34 weeks.

We decided to let Madam B.A have an elective caesarean section as we could not identify the source of the bleeding and bearing in mind the association of rupture of utero ovarian vessels and labour.¹³

CONCLUSION

Idiopathic hemoperitoneum in the second half of pregnancy is a rare event and therefore difficult to diagnose. Obstetricians should have this in mind when dealing with pregnant women presenting with abdominal pain in the second half of pregnancy. Prompt and adequate resuscitation is critical in the management.

In cases which are remote from term, conservative management is an option after the initial surgery.

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