

meters to normal (Fig 1). Six weeks after the abortion: Hb 12.0 g/100 ml; blood film, renal and liver function tests normal; investigations to exclude other causes of hypertension and convulsions were negative. Three months after the abortion: both retinas normal; intravenous pyelography revealed no abnormality.

Comment

The characteristic features of disseminated intravascular coagulation (DIC) are: (1) consumption coagulopathy; (2) multiple organ involvement; (3) secondary fibrinolysis as suggested by elevated FDPs; (4) microangiopathic hæmolytic anaemia (Brain *et al.* 1962); (5) demonstration of multiple small-vessel fibrin clot deposits in biopsy or autopsy material; (6) clinical and hæmatological response to a therapeutic trial of heparin (Brain *et al.* 1967).

There was evidence in this case of widespread organ involvement producing fits, abdominal pain from liver distension and impairment of liver and renal function. There was also thrombocytopenia, microangiopathic hæmolytic anaemia and elevated serum FDPs, although plasma fibrinogen and coagulation profiles were otherwise normal. These features are indicative of DIC which resolved a few days after the abortion. The high urinary FDPs probably reflected renal damage with fibrin deposition within the kidney. The excretion of urinary FDPs diminished with improvement of renal function and resolution of renal damage.

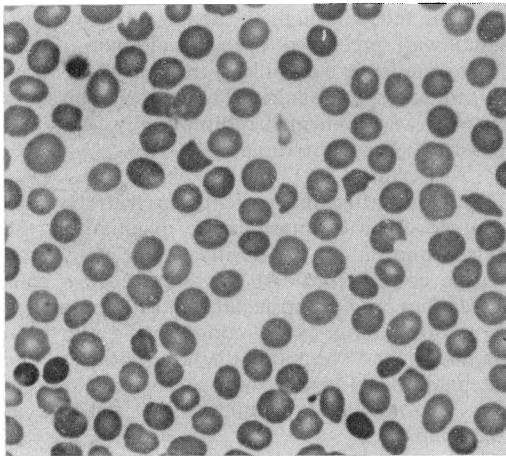


Fig 2 Blood film showing deficiency of platelets, a moderate degree of polychromasia and microangiopathic change. Gross anisocytosis and poikilocytosis are seen. The poikilocytes are in the form of fragmented red cells, irregularly contracted and crenated cells and spherocytes. $\times 500$

There is much evidence to support the view that acute accelerated DIC occurs in eclampsia (McKay *et al.* 1953, McKay 1972, Page 1972). It has been suggested that the DIC may result from thromboplastin released into the circulation from the placenta (Page 1972). The cerebral, renal, hepatic and hæmatological manifestations seen in eclampsia can be explained by the DIC process which has a major intermediate pathogenic role in this condition (McKay 1972, Page 1972).

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Maternal Death Due to Undiagnosed Left Renal Artery Aneurysm Associated with an Absent Right Kidney

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History: The patient was a 32-year-old primigravida booked at a general practitioner maternity unit. The only abnormality was a persistently raised blood pressure of about 150/90 mmHg throughout pregnancy. Consultant opinion was sought at 35 weeks and arrangements made for hospital admission 2 days later.

On the day following the clinic visit the patient developed severe pain in the left loin and fainted once. Her blood pressure was 80/60 mmHg and she was extremely tender in the left flank. Abruptio placenta was diagnosed and she was transferred to hospital.

On admission: The patient was pale but not shocked, blood pressure 120/85 mmHg, pulse 100/min. A small quantity of urine contained a trace of albumin but no blood. The height of the uterine fundus was compatible with the dates but the uterus was deviated to the right and there was a tender mass about 25 cm in diameter on the left. The uterus was not tender, there was no vaginal bleeding, the foetus was easily palpable but the foetal heart was inaudible. The diagnoses considered were haemorrhage into an ovarian cyst or left polycystic kidney.

At operation: Blood was crossmatched and the patient prepared for the theatre. As she was being

transferred she developed severe pain and shock. Four units of blood were transfused rapidly but deterioration continued. A classical Caesarean section was performed, the blood pressure being unrecordable and pulse just palpable at the time that anaesthesia was induced. A stillborn infant of 2700 g was delivered.

There was blood-stained fluid but no free blood in the peritoneal cavity but there was an enormous left-sided retroperitoneal haematoma. The right kidney could not be felt. The left renal artery was eventually located and clamped, but by this time the patient was moribund despite having had 18 units of blood. Resuscitation attempts were abandoned 2 hours after the initial incision.

Post-mortem examination: The right kidney and ureter were absent. The left kidney weighed 285 g (normal about 170 g). The left renal vessels were large but there was no evidence of atherosclerosis. The artery branched into three principal divisions, and at the trifurcation there was an opening 1 cm in diameter communicating with a sac 2.5 cm in diameter which had a defect measuring 2 cm in diameter in its posterior wall. The bladder and left ureter were normal.

Much blood clot surrounded the kidney and extended into the left paracolic gutter up to the diaphragm and across the aorta, also down into the left side of the pelvis extending to the right, across the iliac vessels, thus displacing the uterus to the right.

Microscopic examination of the left renal artery showed that the wall of the aneurysm was largely fibrous. There was dense inflammatory exudate through the wall of the aneurysm at one point and it may be that this was the point of gradual weakening that led to rupture. Sections of the renal artery away from the rupture showed muscular intimal thickening.

Comment

This is a condition well described by MacCormack *et al.* (1958) and Wyllie *et al.* (1962). They described a sausage-string appearance of the renal artery with closely spaced stenotic zones producing narrowing of the lumen of the vessel with various proportions of intimal, medial and sub-arterial fibroplasia. Between these constrictions there were areas of thinning with aneurysmal dilatation in about 50% of cases.

Wyllie *et al.* described a series of 35 patients, all of whom had presented with hypertension and were investigated by renal arteriography. Thirty of the 35 were women, and it was noted that of

the 24 who underwent surgery, either for excision of the stenosed zone or nephrectomy, 19 became normotensive. The etiology of the condition is obscure.

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Rupture of a Splenic Artery Aneurysm in Pregnancy

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History: The patient, an unmarried Irish primigravida aged 39, attended the Accident and Emergency Department complaining of pain in the chest and upper abdomen. At first she denied that she could be pregnant although her abdomen had been swelling increasingly for six weeks. Her previous health had been good.

On admission: She was a well built woman who was pale but lying comfortably. She was apyrexial, pulse rate 80/min, blood pressure 150/90; there was bilateral ankle oedema. She was unable to pass urine but a specimen obtained at the time she collapsed contained a moderate amount of protein. The height of the uterine fundus was that of a 36-week pregnancy and many fetal parts could be felt, although the tense anterior abdominal wall precluded precise palpation. Fetal heart sounds were audible in the right iliac fossa. No tenderness was elicited. The clinical impression of twins was confirmed radiologically, the fetal maturity being approximately 36 weeks.

An hour after the patient's arrival the pain recurred. It was intermittent, maximal in the epigastrium and apparently associated with uterine contractions. At this stage it was concluded that pre-eclampsia, anaemia and threatened premature labour were complicating the twin pregnancy and the patient was admitted to the antenatal ward for rest, observation and investigation. She was given pethidine 100 mg i.m. at 11.30 p.m.

At 5.30 a.m. she was awakened by epigastric pain. Strong contractions were felt by the nurse who recorded a pulse rate of 70/min and blood pressure 120/80, and noted that the bed was wet. Then the patient collapsed. She was revived by