

ECLAMPSIA IN ADVANCED ABDOMINAL PREGNANCY

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ABSTRACT

The occurrence of eclampsia in an extra uterine pregnancy is a very rare entity. We report a case of a patient with eclampsia and advanced extra-uterine pregnancy. The fits were controlled with diazepam and the patient had laparotomy for the evacuation of the fetus from the abdominal cavity. She had an uneventful post operative recovery and was discharged home in good health after 10 days.

Key Words: Eclampsia, extra-uterine pregnancy.

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INTRODUCTION

Various theories have been advanced to explain the pathogenesis of pre-eclampsia/eclampsia but basic to its occurrence is the presence of placental tissue within the maternal host and it is postulated that poor placentation resulting from inappropriate uterine spiral artery invasion may be the primary pathology¹. Even this is now contentious, as the lesions are not specific to pre-eclampsia. The association of eclampsia with abdominal pregnancy is an uncommon occurrence. Some workers have postulated that the association is uncommon because pre-eclampsia is self limiting in an extra-uterine pregnancy². There were only 30 confirmed case reports in the English literature as at 1987 when Moodley & colleagues³ reported two additional cases. Ekwempu⁴ later reported a case of pre-eclampsia in a patient with heterotopic pregnancy where the condition persisted for 3 weeks until after the delivery of the extra-uterine pregnancy while in another report by Piering & colleagues⁵ there was an interval of 99 days between delivery of the fetus and that of the placenta for symptoms to resolve in a pre-eclamptic with abdominal pregnancy. It appears therefore that the uterus is not important in the pathogenesis of pre-eclampsia / eclampsia. This case report is an addition to the series of this rare combination!

CASE REPORT

A 28 year old gravida 1 para 0 patient presented at the gynaecological clinic with 8 months period of amenorrhoea, 2-day history of slight vaginal bleeding and convulsions that had started the day of presentation. She had convulsed several times before presentation. She had had earlier episodes of

lower abdominal pain and occasional spotting some weeks prior to presentation. The pregnancy was not booked and she had not been in contact with any health care facility despite her seven years history of infertility. She had no previous history of seizures to suggest epilepsy neither was there any family history of hypertension, diabetes mellitus or twin gestation. She was severely pale on admission with a blood pressure of 150/110 mmHg. The abdomen was distended, tender and it was difficult to properly delineate fetal parts. There was marked proteinuria (3+) and her packed cell volume was 15% with blood group O rhesus negative. An ultrasound scan revealed an empty but bulky uterus and an extra uterine fetus with heart activity at 30 weeks gestation. The placenta was diffuse below the fetus and appeared continuous with the uterus. The convulsions were abated with intravenous diazepam and the elevated blood pressure was controlled with intravenous hydralazine. Two units of blood were transfused. At laparotomy there was an intact intra-abdominal gestational sac with a fresh stillbirth, male, fetus that weighed 1.1 kg (Figure 1). The placenta was attached to the posterior aspect of the uterus with an extension into the cul-de-sac. The right ovary and tube could not be identified and appeared to be part of the gestation sac. Attempt to shell the placenta from the uterus and cul-de-sac provoked heavy bleeding that was difficult to control necessitating a hysterectomy. She received 4 units of blood. Postoperatively her blood pressure was 140/110 mmHg and she had two more episodes of fits while being maintained on intravenous diazepam infusion. She regained consciousness on the third postoperative day. Her blood pressure had fallen to 110/70 mmHg and her packed cell volume was 24%. The rest of the postoperative period was normal.

The stitches were removed on the 7th day and she was

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Figure 1

The uterus is on the left (arrow), the placenta is in the middle and the male infant is on the right.

Discharged home on the 10th post-operative day in good health. At the 6-week postnatal visit the blood pressure was normal at 120/80mmHg.

DISCUSSION

Eclampsia is a major cause of maternal mortality in our environment⁶. The clinical picture of eclampsia in this case was indistinguishable from that occurring in an intrauterine pregnancy and supports the view that the uterus is not essential for pre-eclampsia / eclampsia to occur. Though the association between pre-eclampsia/eclampsia and advanced abdominal pregnancy is said to be uncommon, under-reporting might be a major factor since documentation is notoriously poor in settings where the two conditions are likely to flourish. There is also under-utilization of maternity services in such settings hence cases might not come to medical care. If the case reported had had prenatal care, she might have been detected earlier as pre-eclampsia before the fits. In addition, the previous history of infertility, abdominal pains and tenderness would have raised the suspicion of an extra-uterine pregnancy with surgical intervention even before the development of pre-eclampsia and the complication of eclampsia.

Real time ultrasound scan has improved the preoperative diagnosis of advanced abdominal pregnancy and was employed with success in this case. The placement of the balloon of a Foley's catheter in the empty uterus can assist in the demonstration of the uterus separate from the fetus especially when the pelvic anatomy is distorted and bowel loops are intervening⁷.

placenta at surgery for advanced abdominal pregnancy. The removal of the placenta is likely to be associated with severe haemorrhage but its removal is advisable when it is safe as it reduces hospital stay and maternal morbidity⁸. With the benefit of hindsight in this case, perhaps we should have left it alone to avoid the massive haemorrhage that necessitated the hysterectomy. If left alone in the

abdominal cavity, an external drain is mandatory with or without adjuvant methotrexate administration. However, such management is usually associated with turbulent postoperative period that might require re-exploration. Ombelet *et al*⁹ in a large series of advanced abdominal pregnancies reported that the placenta was completely removed in 58% of cases and left in-situ in the remaining 42%. Our suggestion is that each case should be individualised and the experience of the surgeon should also be a factor when considering the options. In guinea pigs, there is evidence that trophoblastic tissue from female embryos survive longer in ectopic sites than similar tissue from male embryos¹⁰. But in normally sited pregnancies, it has been reported that there is an increased incidence of male fetuses associated with pre-eclampsia¹¹. This has led some researchers to suggest a sex bias in favour of the female fetus when pre-eclampsia/eclampsia is associated with an extra uterine pregnancy⁵. This case report in which the fetus was male and many others^{6,7} do not support this view. It appears therefore that there is still more to be learnt in the pathogenesis of pre-eclampsia/eclampsia.

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