

Case Report

SPONTANEOUS BILATERAL ECTOPIC PREGNANCY: A CASE REPORT.

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Abstract

Background: Ectopic pregnancy is defined as the implantation of a fertilized ovum at a site other than the uterine endometrium. Worldwide, ectopic pregnancy complicates 0.25 – 2% of all pregnancies. Bilateral ectopic pregnancy is rare. It occurs in 1 out of every 200,000 spontaneous pregnancies and range from 1 out of every 725 to 1,580 ectopic pregnancies. Ectopic pregnancy is one of the commonest causes of first trimester maternal mortality in our environment.

Case presentation: She was a 39-year-old G₄P₂⁺¹ (2 alive) lady who presented to the emergency unit following 6 weeks of amenorrhoea with bilateral ectopic pregnancy. At laparotomy, there were right and left ruptured ampullary ectopic gestations. Right and left partial salpingectomy was done and repaired with No. 1 vicryl suture. The haemoperitoneum was evacuated. She recovered and was counselled on invitro fertilisation if she is still desirous of pregnancy.

Conclusion: Ectopic pregnancy is associated with increased risk of maternal morbidity and mortality. Early presentation to the hospital, high index of suspicion, availability of diagnostic facilities and functional blood transfusion services are key in reducing the morbidity and mortality associated with ectopic pregnancy.

Keywords: Ectopic pregnancy, bilateral ectopic pregnancy, morbidity and mortality, laparotomy, salpingectomy.

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INTRODUCTION

Ectopic pregnancy is defined as the implantation of a fertilized ovum at a site other than the uterine endometrium¹. Worldwide, ectopic pregnancy complicates 0.25 – 2% of all pregnancies^{2, 3, 4}. Bilateral ectopic pregnancy is rare. It occurs in 1 out of every 200,000 spontaneous pregnancies⁵ and range from 1 out of every 725 to 1,580 ectopic pregnancies⁶.

Ectopic pregnancy is one of the commonest causes of first trimester maternal mortality in our environment^{2, 7}. It affects prospects of future fertility negatively⁸. There is rise in the incidence of ectopic pregnancy over the past three decades^{2,7}.

This rise is associated with increase in pelvic infections, advances in assisted reproductive technology, tubal surgeries, use of intrauterine devices and early diagnosis with more sensitive methods⁹.

CASE PRESENTATION

She was a 39-year-old G₄P₂⁺¹ (2 alive) lady who presented to the emergency unit following 6 weeks of amenorrhoea with complaints of spotting per vaginam of 6-day duration and lower abdominal pain of 1-day duration. Pregnancy was spontaneously conceived. There was no dizziness, fainting spells, shoulder tip pain, palpitations, easy

fatiguability, fever, vomiting, change in bowel habit or urinary symptoms. She had Caesarean section in her last confinement in 2009 due to foetal distress. She had induced termination of pregnancy in 2016 at six weeks gestation by manual vacuum aspiration in a private clinic. There were no post abortion complications. She had no previous history of pelvic inflammatory disease or ectopic pregnancy.

Examination revealed a young woman, who was not in any form of distress and not pale. Respiratory rate was 18/min; pulse was 84/min, regular and full volume. Blood pressure was 110/70 mmHg. There was a previous transverse suprapubic scar that healed by primary intention. There were suprapubic and left iliac fossa tenderness. The uterus was not tender and the liver, spleen and kidneys were not palpably enlarged. There was no active vaginal bleeding. The cervix was smeared with blood. The uterus was bulky. There were tender, soft masses in the right and left adnexa. The pouch of Douglas was boggy and there was cervical motion tenderness.

Pregnancy test (urine) was positive. Urgent packed cell volume was 40%. Transvaginal ultrasound scan revealed two gestational sacs with cardiac activity, each at the right and left adnexa respectively. The uterine cavity was empty. There was minimal haemoperitoneum.

A diagnosis of bilateral ectopic pregnancy was made. She and her husband were counselled on the findings, diagnosis, possible complications and the need for emergency laparotomy. She was immediately admitted and two units of blood were grouped and cross-matched for surgery.

At laparotomy, there was haemoperitoneum of 300 ml. There was a bulky uterus with a fibroid nodule measuring about 4 cm x 4 cm at the posterior aspect of the right cornual region of the uterus. There were right and left ruptured ampullary ectopic gestations (Figure 1). Both ovaries were grossly normal. Right and left partial salpingectomy was done and repaired with No. 1 vicryl suture. The haemoperitoneum was evacuated. The anterior abdominal wall was closed in layers.

Her post-operative packed cell volume was 37%. The histological examination of the excised right and left fallopian tubes confirmed bilateral ectopic gestation.

She was discharged home on the fifth post-operative day on haematinics after counselling on the impact of bilateral salpingectomy following bilateral ectopic gestation on her future fertility. At the follow-up visit two weeks later, the wound had healed satisfactorily and her packed cell volume was 38%. She was counselled on invitro fertilisation if she is still desirous of fertility.



Figure 1: Spontaneous bilateral ectopic pregnancy.

DISCUSSION

Worldwide, ectopic pregnancy complicates 0.25 – 2% of all pregnancies^{2, 3, 4}. Bilateral ectopic pregnancy is rare. It occurs in 1 out of every 200,000 spontaneous pregnancies⁵ and range from 1 out of every 725 to 1,580 ectopic pregnancies⁶. Compared with natural conception, the ectopic pregnancy rate is approximately 2.5 – 5-fold higher following in vitro fertilisation-embryo transfer¹⁰. Worldwide, the incidence of ectopic pregnancy is on the increase, but the morbidity and mortality associated with it has been on the decrease in the developed countries. This is not so in the developing countries, where majority present late with rupture and haemodynamic instability¹¹. The patient presented was haemodynamically stable at presentation.

More than 95% of ectopic pregnancies occur in the fallopian tube with the ampulla being the commonest site^{8, 11} as was found in the case presented where there was bilateral ectopic pregnancy in the ampulla of both fallopian tubes. Other sites include the isthmus, fimbria, interstitium, ovary, abdominal cavity, and Caesarean section scar^{8, 11}. Previous induced abortion, previous Caesarean section and the right cornual fibroid were the predisposing factors for ectopic pregnancy identified in the case presented. Other risk factors are pelvic inflammatory disease, previous ectopic pregnancy, multiple sexual partners, history of infertility, conception following ovulation induction/assisted reproductive technology, abnormality of the fallopian tube and in utero exposure to diethylstilbestrol^{8,12}.

There was high index of suspicion of ectopic pregnancy following history and examination of this patient with a positive pregnancy test. Transvaginal ultrasound scan revealed the presence of bilateral ectopic pregnancy before the surgery. Two gestational sacs with cardiac activity were seen at the right and left adnexa respectively. Transvaginal ultrasound scan has a sensitivity of 87 – 99% and specificity of 94 – 99%, with positive predictive value of 96.7% and negative predictive value of 99.4% for identification of ectopic pregnancy¹³.

Management of ectopic pregnancy may be surgical, medical or expectant. Management is influenced by the clinical state of the patient, the site of the ectopic gestation, whether it is ruptured or unruptured, if the patient is desirous of fertility and availability of facilities⁹. The 'gold standard' for the treatment of ruptured ectopic pregnancy is surgical. This may be through laparotomy or laparoscopy⁹. The surgical procedure done through these routes may be salpingectomy which is radical or linear salpingotomy which is conservative⁹. Laparoscopic management of ectopic pregnancy is a safe and effective alternative to laparotomy¹⁴. Laparoscopic procedures are associated with less intra-operative blood loss, lower analgesic requirements, shorter hospital stay, and faster resumption of activities^{12, 15}. Laparotomy with salpingectomy was done in the case presented because both tubes were ruptured, with haemoperitoneum.

Conservative management could be expectant or medical. Medical management with methotrexate is preferred for patients with unruptured ectopic pregnancies who are haemodynamically stable¹⁶. These patients must be well motivated and meet the criteria for these options^{15, 16}. The medical management with methotrexate has some advantages when compared with surgical treatment. It is less invasive, less expensive and does not need much expertise. Methotrexate therapy can be administered using the single-dose or the multidose regimen. The single dose regimen has fewer side effects but its slightly less effective^{17, 18}. Expectant management follows the natural history of ectopic pregnancy. However, expectant management is associated with high failure rate¹⁵. Ectopic pregnancy is associated with increased risk of maternal morbidity and mortality especially in the developing world. The incidence of ectopic pregnancy can be reduced by prevention of pelvic inflammatory disease, provision of family planning services and safe abortion services. Early presentation to the hospital, high index of suspicion, availability of diagnostic facilities and functional blood transfusion services are key in reducing the morbidity and mortality associated with ectopic pregnancy.

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