J Cases Obstet Gynecol, 2016;3(3):77-79

Case Report

Spontaneous bilateral tubal pregnancies: A two staged presentation

Fouzia Memon[1,*], Mohamed Matar[1]

[1]North Cumbria University Hospital, Carlisle, United Kingdom

Abstract

Spontaneous bilateral tubal pregnancy is an uncommon gynaecological event. It has an estimated incidence of 1 in 725 to 1 in 1580 ectopic pregnancies. The exact cause remains unknown and they are usually diagnosed at the time of surgery. It is an important cause of first trimester maternal mortality and significantly affects future fertility. We report an unusual case of spontaneous bilateral tubal pregnancy. At initial presentation the patient was clinically stable and treated with laparoscopic right salpingectomy, she subsequently underwent laparotomy with left salpingectomy three weeks later at a further admission in haemorrhagic shock and significant haemoperitioneum.

Key Words:

Spontaneous bilateral ectopic pregnancy, gynaecological emergency, haemorrhagic shock, laparoscopic salpingectomy

Introduction

Although the incidence of bilateral tubal pregnancy is higher in assisted reproduction technique (ART) induced patients, it should always kept in mind among spontaneous pregnancies also. The incidence of bilateral tubal pregnancy is on the increase due to increased availability and utilization of ART so early diagnosis and treatment is necessary to limit complications. Both uterine cavity and bilateral adnexial areas should be examined during management of viable and non-viable pregnancies even for spontaneously conceived pregnancies. There is a need for an agreed protocol for appropriate management and follow up of such cases.

Article History:
Received: 19/11/2015
Accepted: 16/03/2016

***Correspondence:** Dr. Fouzia Memon (Consultant Obstetrician and Gynaecologist)
Address: Cumberland Infirmary, Newtown Road, Carlisle CA2 7HY
Phone: 00447882674593
Email:fouziarasoolbux@yahoo.com

Case Presentation

A 25-year-old primigravida presented with a 6 week history of amenorrhoea, intermittent vaginal bleeding and lower abdominal pain for the past 5 days. Urine pregnancy test was positive. There were no obvious risk factors for ectopic pregnancy. She was hemodynamically stable. She was mildly tender in the lower abdomen and there was bilateral adnexal tenderness with cervical excitation on pelvic examination. Serum beta human chorionic gonadotrophin level was 1880IU/L and transvaginal pelvic ultrasound revealed an empty uterus with a 3.7 x 3.3 cm left adnexal mass suggesting a left tubal ectopic pregnancy. The patient was counselled about the possibility of ectopic pregnancy, its consequences and treatment options. At diagnostic laparoscopy there was a right, rather than left, slow leaking fimbrial ectopic pregnancy that was successfully managed by right salpingectomy. Both ovaries appeared normal, although the left tube looked mildly oedematous. She was planned for follow up in the early pregnancy assessment unit and a hysterosal-

pingogram at 8 weeks post surgery to assess left tubal patency. Histology confirmed a right tubal ectopic pregnancy. She was admitted 3 weeks later in haemorrhagic shock with severe acute lower abdominal and significant shoulder tip pain. The patient did not have sexual intercourse before re-presentation. Her pulse rate was 120 beats/min with a blood pressure of 50/30mmHg; there was generalized abdominal distension, marked guarding and rebound tenderness. The urinary pregnancy test was still positive and urgent haemoglobin check was 8.0 g/dL. Transvaginal pelvic examination suggested ruptured left ectopic pregnancy with significant intraabdominal fluid collection. Findings at emergency exploratory laparotomy included 3000 ml of haemoperitoneum and a ruptured left tubal ectopic pregnancy. Left salpingectomy was carried out and she was adequately resuscitated with 4 units of blood and 2 units of fresh frozen plasma transfusion. Preoperative serum beta human chorionic gonadotrophin sample level was 23,651 IU/L. The patient made an uneventful recovery and post-transfusion haemoglobin was 11.3 g/dL. Two weeks after surgery the serum beta human chorionic gonadotrophin level was <5 IU/L confirming complete removal of ectopic pregnancy. She was counselled on the need for assisted reproductive techniques for future conceptions. Histology confirmed a left tubal ectopic pregnancy.

Discussion

Spontaneous bilateral tubal ectopic pregnancy is a rare gynaecological emergency. In the United Kingdom approximately 11 in 1000 pregnancies are ectopic. Ectopic pregnancy is still the leading cause of pregnancy-related death in the first trimester. The frequency of bilateral tubal pregnancy is estimated at 1 in 200,000 intrauterine pregnancies [1, 2] and 1 in 725 to 1 in 1580 ectopic pregnancies [3, 4]. There has been a gradual increase in incidence of both ectopic and bilateral tubal ectopic pregnancies in the last 20 years due to increase in use of assisted reproductive techniques, sexually transmitted diseases and greater use of intrauterine contraceptive devices [5, 6, 7]. Bilateral tubal ectopic pregnancy impacts negatively on future fertility as a proportion of patients can end up with bilateral salpingectomy as in our case, preventing further natural conception. The reported case occurred after a spontaneous menstrual cycle, which is not common as most cases of bilateral tubal ectopic pregnancy arise from assisted reproductive techniques, after tubal surgeries and ovarian hyperstimulation cycles. The exact etiology of spontaneous bilateral tubal pregnancy, as in our case, remains an enigma. Tabachnikoff et al. [8] suggested three possible mechanisms for spontaneous bilateral tubal pregnancies. Firstly, simultaneous ovulations from both ovaries resulting in two synchronous tubal pregnancies, but due to unequal growth the larger ectopic tend to present first. The second explanation is after superfetation, but this is extremely rare in humans and lastly transperitoneal trophoblastic migration from one tubal pregnancy with implantation in the contralateral tube or third cause as sequential impregnation. In our case with no obvious evidence of corpus lutea in both ovaries, simultaneous ovulation is the least likely cause of the spontaneous bilateral tubal ectopic pregnancy. Diagnosis of bilateral tubal ectopic pregnancy by ultrasonography is a challenge and had its limitations in this case; most diagnosis are made at the time of surgery and this is supported by medical literature [9,10]. At initial presentation, medical therapy with methotrexate is a suitable treatment option as she was hemodynamically stable, had minimal symptoms and serum beta human chorionic gonadotrophin level was less than 3,000 IU/L. Outpatient treatment with methotrexate therapy is as effective as surgery with potential for considerable savings in direct and indirect treatment costs when compared with laparoscopy. Laparoscopic salpingectomy and exploratory laparatomy with salpingectomy carried out in our patient at the time of both presentations are recognized surgical interventions. This case emphasises the importance of careful examination of contralateral adnexa during surgery for ectopic pregnancy to assess the state of the contralateral tube, decide on the type of tubal surgery and to also exclude the likelihood of bilateral tubal ectopic pregnancy. Appropriate follow-up in patients with suspicious contralateral adnexa will aid earlier diagnosis and limit mortality and morbidity associated with bilateral tubal ectopic pregnancy and it should be suspected in symptomatic patients representing after recent treatment for ectopic pregnancy. For now, it is accepted practice to apply the same principles of management to both singleton and bilateral ectopic pregnancies; however, with the recent surge in incidences, uncertainty in the pattern of serum beta human chorionic gonadotrophin changes and multiplier effect of associated morbidity and mortality of bilateral ectopics, it is reasonable to have a different agreed guideline for the management of bilateral tubal ectopic pregnancy.

Acknowledgement
None

Conflict of Interest Statement
None

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