

Bilateral Tubal Ectopic Pregnancy: A Case Report

Dr. Narmada, Senior resident, Dr. Sowjanya Tsama, Junior resident, Dr. Satyanarayana Reddy Alla, Professor & HOD, Department of Obstetrics & Gynaecology, Vinayaka Mission’s Medical College & Hospital, Vinayaka Mission’s Research Foundation, Karaikal, Pondicherry.

Correspondance Author: Dr Alla Satyanarayana Reddy, Professor and HOD, Department of Obstetrics and Gynaecology, Vinayaka Mission’s Medical College & Hospital, Karaikal, Pondicherry. 609609.

Type of Publication: Case Report

Conflicts of Interest: Nil

Abstract

Bilateral simultaneous Tubal Ectopic Pregnancy (BTP) is the rarest form of ectopic pregnancy. The incidence is higher in women undergoing assisted reproductive techniques or ovulation induction. A 30 year old woman G3P1L1A1 presented with history of amenorrhoea of 45days and spotting per vaginum for past 5days. On examination, there was moderate degree of pallor with tachycardia , normal sized uterus ,vague right TO mass ,tender ness at examination, boggy douglas pouch. Ultrasound and colpocentesis was done and a clinical diagnosis of ruptured ectopic pregnancy on right side was made. On laparotomy , right tubal abortion, haemoperitonem, and another unruptured left tubal pregnancy was seen. Right salpingectomy and left linear salpingotomy done. She was administered a single dose of injection Methotrexate and was followed with serial beta HCG estimation.

Keywords: Bilateral ectopic pregnancy, β -hCG, Salpingectomy, salpingostomy

Introduction

Bilateral simultaneous Tubal Ectopic Pregnancy (BTP) is the rarest form of ectopic pregnancy. The incidence of bilateral ectopic pregnancy is about 1 in 200,000 pregnancies. It may occur in 1 in 725-1580 ectopic pregnancies .The occurrence of spontaneous bilateral

ectopic pregnancy is extremely rare. The incidence is higher in women undergoing assisted reproductive techniques or ovulation induction. The clinical presentation is unpredictable and there are no unique features to distinguish it from unilateral ectopic pregnancy. Bilateral tubal ectopic pregnancy continues to be a clinician’s dilemma as pre-operative diagnosis is difficult and is commonly made during surgery. Treatment options are varied depending on site of ectopic pregnancy, extent of tubal damage and requirement of future fertility.

Case report

A 30 year old G3P1L1A1 with previous LSCS came with history of amenorrhoea of 45days, mild pain abdomen and spotting per vaginum for the past 5days. She had full term LSCS 4 years back which was spontaneous conception delivered an alive female baby of birth weight 2.9 kgs. History of missed abortion at 40 days of amenorrhoea after 10 months of first delivery and it was terminated medically. She had a history of copper T insertion, which was removed 4 months back. No intake of OC pills or emergency contraceptive pill. She didn’t reveal any fertility treatments. Her previous menstrual cycles were regular and there was no history of STI, pelvic inflammatory disease (PID) or tuberculosis. She was a recently diagnosed case of hypothyroidism and is on 50mcg of L Thyroxin. Patient had an abdominal

ultrasonography report done from outside the previous day, which was suggestive of right tubal unruptured ectopic gestation. On examination, there was moderate degree of pallor with tachycardia. Her blood pressure measured 100/70 mmHg with a regular heart rate of 96 beats/minute. There was diffuse abdominal tenderness but no guarding or rigidity. Mild bleeding was present through the cervical os. Per vaginal examination revealed a normal sized uterus, ill defined, mildly tender right tubo ovarian mass, mildly tender on cervical movements, with fullness in the Pouch of Douglas (POD). Urine pregnancy test was done and was found to be positive. Emergency abdominal ultrasound was done which revealed an empty uterus with a heterogenous mass of size 26X17 mm seen in right adnexa close to right ovary and evidence of free fluid in pelvis and pouch of Douglas. Colpocentesis done, which yielded blood. Diagnosis of ruptured ectopic pregnancy was made, keeping in mind the possibility of tubal abortion. Emergency laparotomy was performed under general anaesthesia. At laparotomy, there was 100 ml of haemoperitoneum with approximately 500 ml of clots in the POD. The right tube was the seat of a 2 x 3 cm tubal ectopic pregnancy in the ampullary region, with active ongoing bleeding from the fimbrial end suggestive of tubal abortion. The uterus was normal in size. On inspection of the left tube, there was another mass of 2 x 3 cm in the ampullary region with a thinned out bulging point suggestive of near rupture. Both the ovaries were enlarged and had a solid appearance, measuring approximately 4 x 3 cm, raising suspicion of possible ovulation induction which she might not have revealed to us. An option of partial salpingectomy/ salpingectomy on right side and linear salpingostomy on left side was discussed with the relatives. The possibility of future recurrent ectopic pregnancy with conservative surgery was explained to them. On the expressed consent of the husband, right salpingectomy and left salpingotomy done.

Expressed products of conception were sent for histopathological examination, which later confirmed the presence of chorionic villi in the right tube and chorionic villi in the products obtained at left salpingotomy. The diagnosis of bilateral ectopic pregnancy was confirmed. One dose of 50mg methotrexate given on day 1. Her postoperative period was uneventful, and she was discharged on day 7 in stable condition with an advice for serial β -human chorionic gonadotrophin (β -hCG) monitoring to rule out a persistent trophoblastic disease.

Her baseline β -hCG was 4279.1 IU/L which decreased to 76.58 IU/L on day 7 and to 6.17 IU/L on day 14. One month after discharge, her β -hCG was < 5 IU/L.

Discussion

While unilateral tubal ectopic pregnancy is the commonest form of ectopic gestation, simultaneous Bilateral Tubal ectopic Pregnancy (BTP) is the rarest variety. With a reported incidence of 5 in 1 million deliveries [1]. Higher incidence of bilateral tubal ectopic pregnancy has been seen after the use of Assisted Reproductive Techniques (ART) or following ovulation induction [2]. The incidence of BTP is 1 in 725 to 1580 ectopic pregnancies [5], corresponding to 1 per every 200,000 live births [6]. It is possible that the actual incidence of bilateral tubal ectopic pregnancy may be higher but many cases go unrecognized or unreported. Furthermore, risk factors for the occurrence of ectopic gestation like PID, sexually transmitted diseases, use of antibiotics for treating PID instead of salpingectomy, ovulation induction and tubal surgeries are quite common [1]. The mechanisms of BTP have been postulated variously as multiple ovulations, transperitoneal migration of trophoblastic tissue from one tube to the other and superfetation [7,8]. The diagnostic criteria were first laid out by Fishback who suggested that there should be a description of foetal parts or foetus as well as placental parts from both the tubes [5]. This was later modified by Norris, who stated that microscopic

demonstration of chorionic villi in both tubes was sufficient for the diagnosis [9]. Thus, in most cases, the diagnosis remains essentially surgical or postoperative [9]. Neither clinical symptoms (triad of amenorrhea, vaginal bleeding and pain abdomen) nor serum β -hcg estimation can reliably differentiate BTP from unilateral tubal ectopic pregnancy. Ultrasonography has only rarely picked up BTP preoperatively and that too, in the presence of live embryos in both tubes [10]. Presence of unilateral ectopic pregnancy or adnexal masses has the same clinical presentation as BTP and therefore, proper interrogation of the other tube with ultrasound may be commonly missed [10]. Thus, ultrasound cannot be advocated as standard of care in the diagnosis of this condition [1]. The management varies depending upon the condition of the patient, extent of tubal damage and the wish for future fertility [1]. Medical management with methotrexate successfully injected consecutively into each tube under transvaginal ultrasound guidance has been described, where the diagnosis of BTP was made preoperatively [10]. However, it is essential to diagnose BTP accurately, as failure of medical management with administration of single dose inj. Methotrexate for presumed unilateral tubal ectopic pregnancy has been reported in a case which later turned out to be BTP [11]. Intramuscular injection of methotrexate in a dose of 50 mg/m² has also been used to resolve persistent ectopic pregnancy after laparoscopic bilateral salpingostomy for BTP [10]. Surgical management has ranged from salpingectomy for one tube and linear salpingostomy for the other, to bilateral salpingostomy or bilateral salpingectomy [6]. If available, laparoscopy may be the best option both for diagnosis and management of BTP [12]. However, one needs to keep a high index of suspicion for BTP as the diagnosis can be easily missed even on laparoscopy [12]. Laparotomy is equally effective, and is the management of choice if patient is haemodynamically unstable. Of note however,

serial β -hcg monitoring should be done as there is a high chance of persistent ectopic pregnancy, especially if a conservative surgery like salpingostomy or milking of the tube has been performed [1].

Conclusion

BTP represents a clinician's conundrum as the presentation is quite similar to that of unilateral ectopic pregnancy and is easily missed. Furthermore, there are no treatment guidelines or protocols available for the management of this rare clinical entity. Young parous women who have been trying for conception less than 12 months should not be offered ovulation induction and intra-uterine insemination, as it may lead to BTP as a result of ovarian hyper-stimulation, as illustrated by this case. To conclude, a high index of suspicion and thorough inspection of both tubes even in the presence of dense adhesions, either during diagnostic laparoscopy and/or definitive surgery are simple measures to avoid missing this rare life threatening condition.

References

1. Andrews J, Farrell S. Spontaneous bilateral tubal pregnancies: A case report. *J Obstet Gynaecol Can.* 2008;30:51–54.
2. Brady J, Wilson M. Spontaneous bilateral tubal ectopic pregnancy. *J R Soc Med.* 2005;98:120–21.
3. Norris S. Bilateral simultaneous tubal pregnancy. *Can Med Assoc J.* 1953;68:379–81.
4. Fox EJ, Mevs FF. Simultaneous bilateral tubal pregnancies. Report of 2 cases. *Obstet Gynecol.* 1963;21:499–501.
5. Fishback HR. Bilateral simultaneous tubal pregnancy. *Am J Obstet Gynecol.* 1939;37:1035.
6. Edelstein MC, Morgan MA. Bilateral simultaneous tubal pregnancy: case report and review of the literature. *Obstet Gynecol Surv.* 1989;44:250–52.

7. Foster HM, Lakshin AS, Taylor WF. Bilateral tubal pregnancy with vaginal delivery. *Obstet Gynecol.* 1982;60:664–66.
8. Tabachnikoff RM, Dada MO, Woods RJ, Rohere D, Myers CP. Bilateral tubal pregnancy. A report of an unusual case. *J Reprod Med.* 1998;43:707–09.
9. Norris S. Bilateral simultaneous tubal pregnancy. *Can Med Assoc J.* 1953;68:379–81.
10. Sentilhes L, Bouet PE, Jalle T, Boussion F, Lefebvre-Lacoeuille C, Descamps P. Ultrasound diagnosis of spontaneous bilateral tubal pregnancy. *Aust NZJ Obstet Gynaecol.* 2009;49:695–96.
11. Marcovici I, Scoccia B. Spontaneous bilateral tubal ectopic pregnancy and failed methotrexate therapy: a case report. *Am J Obstet Gynecol.* 1997;177:1545–46.
12. Li W, Wang G, Lin T, Sun W. Misdiagnosis of bilateral tubal pregnancy: a case report. *J Med Case Rep.* 2014;8:342.