

An unexpected spontaneous triplet heterotopic pregnancy

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ABSTRACT

A heterotopic pregnancy is the coexistence of one or more ectopic pregnancies and a single or multiple eutopic pregnancies. This potentially fatal condition rarely occurs in spontaneous conception cycles. We report a case of spontaneous triplet heterotopic pregnancy in a multigravida with no known risk factors. Ultrasound imaging was the diagnostic tool used and left salpingectomy via laparotomy was performed in this case report.

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A heterotopic pregnancy is the coexistence of one or more ectopic pregnancies and single or multiple eutopic pregnancies. Heterotopic pregnancy is a potentially fatal condition.¹ The first case was reported in 1708 in an autopsy finding.² This condition occurs in 1 out of 30,000 pregnancies.^{3,4} The introduction of assisted reproduction techniques (ART) has increased the incidence in a ratio between 1:100 and 1:1500 pregnancies.⁵

This article reports a very rare case of heterotopic triplet pregnancy where 2 of the embryos were found in the left fallopian tube and intrauterine.

Case Report. A 42-year-old teacher, gravida 6 para 3 + 2, was presented to the Emergency Department (ED) complaining of a lower abdominal pain for 11 days with 8 weeks of associated amenorrhea. This pain started as a dull aching pain at the suprapubic region, which radiated to the back and in time increased in intensity. She had her last normal menstrual period 8 weeks prior to her presentation to our ED. She had normal bowel and bladder habits with no urinary

complaints. She had no dizziness, no fainting and no loss of consciousness. The patient did not undergo any surgery in the past and was not on medications. She had 3 childbirths and all of them were full term spontaneous vaginal deliveries. She also had 2 first trimester complete abortions in her second and fifth pregnancies. The current pregnancy was not planned and she was not on contraceptive pills. There was no history of pelvic inflammatory disease. She gave a family history of diabetes in a first degree relative. Physical examination revealed a pulse of 82 beats per minute, blood pressure of 110/70 mm Hg and a respiratory rate of 18 breaths per minute. The patient looked well, conscious, fully oriented, and was not in distress. There was no pallor or jaundice. The examination of the cardiovascular and respiratory systems revealed no abnormalities. The abdomen was not distended and moved with respiration. There was tenderness in the suprapubic area but with no guarding or rebound tenderness. Vaginal examination revealed normal vulva and vagina with a healthy looking cervix. The uterus was bulky and there was positive cervical excitation tenderness. The ultrasonic examination (**Figure 1**)

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Figure 1 - The intrauterine sac seen with free fluid around the uterus.



Figure 2 - Two ectopic yolk sacs seen with free fluid around.

showed an intrauterine gestational sac and the embryonic pole with positive heart activity. There was free fluid present in the pouch of Douglas and around the uterus. Another gestational sac was seen at the left adnexa (Figure 2) with 2 yolk sacs seen. Laboratory investigations revealed a hemoglobin of 7.7gm/dl; platelets of 430 x 109/liter and her blood group was AB Rh positive. The liver and renal function tests were within normal limits. The coagulation profile was normal. The patient was diagnosed as having heterotopic pregnancies. Laparotomy revealed hemoperitoneum of approximately 300 CC, left ectopic pregnancy at the ampullary part of the fallopian tube. Left salpingectomy was carried out. Postoperative recovery was uneventful and she was discharged on the 3rd postoperative day.

The histopathology examination revealed chorionic villi and decidual tissue in separate sections of the fallopian tube. The patient was followed up at our outpatient antenatal clinic. She had an uneventful antenatal period and went into labor at a gestational age of 39 weeks and delivered a normal, healthy baby girl weighing 3.2 kg. The apgar score was 8 in one minute and 9 in 5 minutes. She went home one day postpartum.

Discussion. Heterotopic pregnancy is a rare condition.^{3,4} The main risk factors are a history of infertility and ART, which leads to an increase in frequency from 1 out of 30,000 cases to 1 in every 100 pregnancy. Case reports of heterotopic pregnancy in natural conception cycles are rare.⁶ Every physician treating women of reproductive age should be aware of the possibility of a heterotopic pregnancy, especially in women presenting with acute abdomen. With early diagnosis and treatment of heterotopic pregnancy, 70% of intrauterine

pregnancies will reach viability.⁷ This is an extremely important fact especially in cases of infertility. Despite a high index of suspicion, most heterotopic pregnancies are diagnosed after rupture of the ectopic pregnancy.⁸ Clinical symptoms are helpful in diagnosing heterotopic pregnancy, although, in the early weeks of gestation most cases might be reported as ectopic pregnancy. Reece et al³ defined 4 common presenting signs and symptoms based on their retrospective analysis of 66 heterotopic pregnancies. These are: 1. abdominal pain, 2. adnexal mass, 3. peritoneal irritation, and 4. an enlarged uterus. However, in most cases the diagnosis is made early in the first trimester when an enlarged uterus is not present. Thus, the most helpful diagnostic tool, in these cases, is high resolution ultrasonographic scan. The positive predictive value of ultrasound (US) in predicting an ectopic pregnancy has been reported to be between 50-95%.⁹ The US findings of a pelvic cystic or complex mass, or fluid in the pouch of Douglas should arouse suspicion of a combined pregnancy in the presence of intrauterine pregnancy.¹⁰ Definitive US diagnosis of a heterotopic pregnancy can only be made when both the intrauterine and extrauterine fetal cardiac activity can be identified.

Management of heterotopic pregnancy is tailored towards preserving the intrauterine pregnancy.¹¹ Maternal well-being should also be ensured by re-establishing the cardiovascular status, providing tissue perfusion and oxygenation, using heart-sparing anesthesia, avoiding pulmonary aspiration, and maintaining euthermia. In cases of ruptured ectopic pregnancy, surgical treatment is imperative and as the survival of intrauterine gestation is reduced in the presence of hemorrhagic shock, the ectopic implantation should be removed as early as possible with minimal trauma to the

intrauterine gestation and by avoidance of intraperitoneal hemorrhage.^{12,13} During surgery, care should be taken not to disturb the uterus. Glassner et al¹² reported that care should also be taken not to disturb the ovarian or collateral blood supply during surgery, particularly in the ovary bearing the corpus luteum. Reece et al³ reported that after laparotomy for extrauterine pregnancy, 9% of their patients had stillbirths or spontaneous abortions, 16% delivered preterm, and 75% delivered at full term. Nonsurgical management by local injection of potassium chloride in the gestational sac was also described by Fernandez et al.¹⁴

In conclusion, the case reported here is diagnosed to have a heterotopic pregnancy in a spontaneous menstrual cycle, which was identified first by high resolution US scan and the ectopic pregnancy excised at a gestational age of 8 weeks, the intrauterine pregnancy continued till term and a full term fetus delivered in good health. One should not forget the heterotopic pregnancy as a differential diagnosis especially in cases who conceived as a result of ART and routine US scanning for ectopic or heterotopic pregnancy is recommended 4-6 weeks after the transfer of embryos.¹⁵

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