Ectopic pregnancy: Case series

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Abstract
In the first trimester of pregnancy, ectopic pregnancy becomes the major cause of maternal mortality and morbidity. It is preventable if detected early in pregnancy.

In this article, we will look at series of five cases in which an ectopic pregnancy ruptured and an emergency laparotomy was performed to avoid fatal consequences, as well as blood transfusion was done. We emphasize at the point that this obstetric emergency is avoidable if transvaginal ultrasound and medical advice is sought as early as a missed period or after a confirmed pregnancy.

Keywords: Ectopic pregnancy, blood transfusion, first trimester screening

Introduction
When a fertilised ovum implants outside the usual uterine cavity, it is called an ectopic pregnancy [1]. In the first trimester, it is the leading cause of maternal mortality and morbidity [2]. A majority of hospital-based studies in developing countries have reported ectopic pregnancy case-fatality rates of roughly 1%–3%, which is nearly ten times greater than those reported in developed countries [3].

Extraterine pregnancy is diagnosed mostly with clinical signs and symptoms, ultrasonography (USG), and beta human chorionic gonadotrophins (b-hCG) serial sample. Despite the fact that many women with ectopic pregnancy have no identifiable risk factors, a prospective case-control study has found that increased awareness of ectopic pregnancy and knowledge of the associated risk factors helps in the identification of women at higher risk, allowing for an earlier and more accurate diagnosis [4].

We come across many incidences when women refuse early pregnancy ultrasounds against their doctor’s advice. Here, we'll discuss 5 cases with varying clinical presentations of ruptured ectopic pregnancy. These were the cases who required emergency surgery and blood transfusions to minimize the fatal consequences. Our aim here is to emphasize the importance of seeking early medical care and TVS as soon the period is missed or pregnancy is confirmed.

Case 1
A 36-year-old G3P2L2 with a 5-week pregnancy, was referred to our tertiary care hospital facility by a private clinic after transabdominal sonography revealed right ruptured tubal ectopic pregnancy.
Her BP was 100/60 mm Hg, her pulse was 110 beats per minute, and she showed a significant pallor. An examination of the abdomen, tenderness and guarding were present. During a vaginal examination, cervical motion tenderness and fullness in the right fornix were felt. An emergency laparotomy was performed along with right salpingectomy and left tubal ligation. Intra abdominal hemorrhage of 700 ml was present. She received 2 units of packed red blood cell post operatively and her Hb was 8gm/dl.

Case 2
37-year-old G2A1, with a history of secondary infertility and polycystic ovarian syndrome who was referred from a private clinic with complaints of abdominal pain for two days and amenorrhea for 8 weeks.
Pallor was evident on examination, blood pressure was 100/60 mm Hg, pulse rate was 104 bpm, tenderness was present on per abdomen examination, and dullness was present on percussion. Fullness was found in the right adnexa during a vaginal examination.
An emergency ultrasound indicated a ruptured right ectopic pregnancy with 400 cc of hemoperitoneum. An emergency laparotomy was performed. At the ampullary region of the right fallopian tube, an ruptured ectopic pregnancy was detected. Salpingectomy was performed on the right side. Her preoperative hemoglobin level was 8.2 gm%. 600 ml of hemoperitoneum was drained. 2 units of whole blood were infused post operatively.

**Case 3**
G3P2L2, 30 years old, with a gestational period of 7 weeks, was referred from a private hospital on post-operative day 1 of suction and evacuation due to bleeding per vaginum for 1 week after taking an unprescribed pills for abortion. She complained of abdominal pain, two spells of dizziness, and pain in the tip of her shoulder.

On examination, the patient had a pallor, a pulse rate of 110 beats per minute, and a blood pressure of 90/60 mm Hg. On per-abdomen, distention and guarding were noted. A speculum examination revealed blood, and a vaginal examination revealed fullness in the pouch of Douglas and cervical motion tenderness. Ultrasonography revealed a right ruptured ectopic pregnancy with substantial hemoperitoneum. Hemoperitoneum of approx. 800 cc was found during emergency laparotomy and right salpingectomy and left tubal ligation were done. Her pre-operative hemoglobin level was 6.5 gm%. Three units of whole blood were given.

**Case 4**
A 30 years old, primigravida with amenorrhea of 7 weeks, again referred a case presented with complaints of abdominal pain since 1 day and bleeding per vaginum. On examination, the patient had pallor, her pulse rate was 118 beats per minute, and a blood pressure of 94/56 mm Hg. Tenderness and guarding were felt during an examination of the abdomen. A speculum examination revealed blood, and a vaginal examination revealed fullness in the right fornix with cervical motion tenderness. Ultrasonography revealed a ruptured ectopic pregnancy in the right fallopian tube. Right salpingectomy was performed on emergency laparotomy and around 600ml of hemoperitoneum was drained. Her pre-operative hemoglobin level was 7.6 gm% and she received two units of whole blood.

**Case 5**
A 32 years old, primigravida with a gestation period of 6 weeks, was referred with complaints of abdominal pain since 1 day, bleeding per vaginum since 6 hours, and amenorrhea. Pallor was present on general physical examination, her pulse rate was 98 beats per minute, and her blood pressure was 90/60 mm Hg. Tenderness and guarding were felt on the abdomen. Speculum examination revealed blood, fullness in the right fornix, and cervical motion tenderness. A right ruptured ectopic pregnancy was diagnosed during an ultrasonography scan. Right salpingectomy was performed after draining around 200cc of blood with clots on emergency laparotomy. Her pre-operative hemoglobin level was 8.2 gm%, and she received 1 unit of whole blood after surgery followed by injectable iron preparation.

**Discussion**
The chance of ectopic pregnancy rises as the mother's age increases with age beyond 35 years being a major risk factor. For women who have had one previous ectopic pregnancy, the probability of recurrence is around 10%, and for women who have had two or more previous ectopic pregnancy, the risk is at least 25%.

Despite the fact that the majority of women with ectopic pregnancy have no identifiable risk factors, a prospective case-control study found that increased awareness of ectopic pregnancy and knowledge of the associated risk factors aids in the identification of women at higher risk, allowing for an earlier and more accurate diagnosis.

Ultrasound remains the gold standard for ectopic pregnancy diagnosis, with transvaginal sonography providing superior accuracy than abdominal sonography. With an initial TVS picking up to 73.9 percent of women with ectopic pregnancy, transvaginal ultrasonography (TVS) has revealed sensitivities of 87.0–99.0 percent and specificities of 94.0–99.9 percent. Transvaginal ultrasound was used to diagnose all of my patients, however the TVS was conducted 1 or 2 days after the onset of symptoms.

TVS was also linked to myths in the community that early scans can be hazardous to the developing fetus (as was there in 3 of above cases when enquired post operatively), resulting in dangerous defets in the fetus early pregnancy scans. 4 patients visited hospital only after they had symptoms of ruptured ectopic. In one patient who took MTP PILL without scan, culprit was over the counter (OTC) drug abuse inspite of recommendations against it. Even we are getting patients where majority of the health providers do not feel the neccessity of early scans as soon as the period is missed. Another factor which we feel is responsible for these emergencies could be lack of awareness of advantages of early TVS among public as well as health care providers.

Three of my patient’s families were not complacent, and as a result of the emergency salpingectomy, patients may suffer future infertility as well as a recurrent risk of ectopic pregnancy. So, getting a TVS done after a missed period or a positive urine pregnancy test should be routine, so that this potentially fatal obstetric emergency can be prevented.

**Conclusion**
Because of its diverse clinical presentation, ectopic pregnancy remains a major issue in obstetric practice due to delayed diagnosis and is one of the most prevalent causes of maternal mortality, morbidity, or maternal near miss in the first trimester. “Catch me early if you scan.” Awareness of benefits of TVS in pregnancy and addressing the myths related to it can be helpful to reduce morbidity and mortality. Delays in referral and OTC drug availability are other issues that contribute to bad consequences. Many women's quality of life suffers as a result of ectopic pregnancy. It is possible to detect it early by maintaining a high index of suspicion and incorporating early pregnancy TVS in routine practice.

**References**
