Case report

Blink and miss - A case report on early diagnosis of unusual presentation of ectopic pregnancy

ABSTRACT

Ectopic pregnancy is a pregnancy in which the fertilised egg implants outside the uterine cavity, most commonly in the fallopian tube, usually presenting as abdominal or pelvic pain, amenorrhea with or without vaginal bleeding in the first trimester.A ruptured ectopic pregnancy is a life-threatening condition that requires rapid diagnosis.Here we present a case of 35 years old female presenting with breathing difficulty, easy fatiguability and giddiness with history of two months of amenorrhea. On examination, patient was haemodynamically unstable with tense and rigid abdomen.Point-of-care urine pregnancy test and point-of-care ultrasound (POCUS) were vital in making the diagnosis of ruptured ectopic pregnancy in this patient. This case report reiterates the importance of Point-of-care ultrasound (POCUS) in early diagnosis, resuscitation and surgical intervention of Ruptured ectopic pregnancy, even in patients with atypical presentation.

INTRODUCTION

Ectopic pregnancy occurs when a fertilised egg implants at any site other than the endometrium of the uterus. Nearly all ectopic pregnancies (95%) are implanted in the fallopian tube, whereas only merely 1% of ectopic pregnancies are implanted in the abdominal cavity [1].While ectopic pregnancies account for only 1.3–2.4% of all pregnancies, they are the leading cause of first-trimester maternal pregnancy-related mortality and account for 10% of maternal pregnancy-related deaths.[2,3]

According to the World Health Organization (2007), 5% of maternal mortality in the developed countries is due to ectopic pregnancy. Hemorrhage and infection cause half of the deaths associated with ectopic pregnancy.[4,5]

The classic triad of symptoms of an ectopic pregnancy includes abdominal pain, bleeding per vaginum and amenorrhea/positive urinary pregnancy test. The signs and symptoms of an ectopic pregnancy vary based on whether it is ruptured or not.(6) Approximately 43-55% of ectopic pregnancies don‘t occur with 3 (three) classic symptoms, and also early symptoms which are common, aren‘t exclusive for ectopic pregnancy, and 9-30% of women probably have no abdominal pain (7).Therefore, it is necessary to suspect the presence of an ectopic pregnancy in women with atypical or nonspecific symptoms. With a strong suspicion, the ectopic pregnancies can be detected faster and complications can be prevented.Here we report a case that demonstrates how point-of-care ultrasound (POCUS) helped to diagnose a patient with a ruptured ectopic pregnancy with atypical presentation quickly who underwent laparotomy.

CASE REPORT:

A 35 years old female G2P1L1 presented to Emergency Department with complains of breathing difficulty, easy fatiguability and giddiness since 5 days associated with history of amenorrhoea for 2 months and spotting 10 days prior to admission which lasted for 2 to 3 days. Patient did not have any co morbidities and her past obstetric history included a normal uncomplicated vaginal delivery 12 years back. She was not allergic to any medication and was not on any regular contraceptive.

On examination, patient looked very pale and distressed. Pulse rate: 140bpm, Blood pressure: 80/60 mm of hg, sPO2: 99% @ RA , RR: 30 cpm.

Per Abdominal examination revealed the abdomen was uniformly distended, tense, diffuse tenderness present, Guarding present, No palpable mass / organomegaly.

Chest auscultation was normal and auscultation of the heart sounds showed tachycardia without any murmur or added sounds.

The patient's rectal and vaginal examinations didn't show any blood or discharge.

Complete blood count showed Haemoglobin of 6.2mg/dl.

Patient's point of care Urine Pregnancy Test was POSITIVE and a quick POCUS in the Emergency Department was performed and it showed free fluid in hepatorenal pouch (Morrisons pouch) with heterogenous content in POD, raising the suspicion of Ruptured ectopic pregnancy causing anaemia with hypovolemic shock.

Blood grouping and cross matching was sent and patient started on blood transfusion.

OBG team was consulted immediately and formal USG scan was done by Radiologist which showed gestational sac with evidence of an embryo corresponding to 9 weeks and 2 days in right adnexa with non visualisation of ovaries separately.

The patient was immediately shifted to Operation Room on Emergency basis for Explorative Laparotomy. In the Operation Room, Intra op findings were:

Right Tubal ectopic pregnancy – Isthmic region, ruptured

Right side ovary bulky 4 cm X 4 cm - ? Corpus luteal cyst rupture

Massive Intra peritoneal haemorrhage – 400gm clots with 750 ml blood in suction, Total 1950ml

Right Salpingo-oophorectomy done, Peritoneal wash given, Haemostats achieved.

Patient was stable at the end of procedure and shifted to post op.The patient had no further complications post operatively and was discharged home after 3 days with outpatient follow up.

Discussion

Ruptured ectopic pregnancies, which is the feared complication of ectopic pregnancies, can lead to hemodynamic instability, and death; ectopic pregnancies account for 2.7% of pregnancy related deaths [8]. So, early diagnosis and effective treatment is of utmost importance to reduce the morbidity and mortality. But not all patients present with the classical signs and symptoms of ectopic pregnancy.Approximately 43-55% of ectopic pregnancies don‘t occur with three classic symptoms of abdominal pain, bleeding per vaginum and amenorrhea. More varied presentation includes nausea, breast fullness, fatigue, heavy cramping, shoulder pain, and recent dyspareunia.Approximately 20% of patients with ectopic pregnancies are hemodynamically compromised at initial presentation, which is suggestive of rupture.The differential is broad, including both obstetric and non-obstetric causes,Therefore, it is necessary to suspect an ectopic pregnancy in women of child bearing age presenting even with nonspecific symptoms. Hence diagnosis of Ectopic pregnancy is challenging in an emergency department setting.
For any woman of child bearing age presenting to the ED with symptoms that raise suspicion of ectopic pregnancy, a point-of-care pregnancy test should be conducted. Serum β-human chorionic gonadotropin (β-hCG) is a more sensitive test than urinary hCG for confirming pregnancy, and negative serum β-hCG essentially excludes a live pregnancy [9]. Patients with a positive pregnancy test and symptoms suggestive of an ectopic pregnancy should be immediately evaluated with Point-of-care ultrasound to determine the presence or absence of an intrauterine pregnancy and presence of free fluid in the abdomen.The presence of free intra peritoneal fluid in patients with a positive pregnancy test and empty uterus has 69% specificity and 63% sensitivity for ectopic pregnancy [10].

Thus, Point-of-care ultrasonography is an important tool for Emergency Physicians to use in assessing patient’s risk for potential ectopic pregnancy as early diagnosis can be valuable in lessening the morbidity and mortality. Studies have shown that Emergency Department patients with a ruptured ectopic pregnancy who received a POCUS first had significantly shorter times to diagnosis, obstetric consultation, and OR arrival compared with those who received Radiology Department performed ultrasound.

In the case described, the patient was diagnosed with a ruptured ectopic pregnancy by positive urine pregnancy test and presence of free fluid in intra peritoneal cavity. Fortunately, her diagnosis was made quickly, and she was taken to the OR for definitive care.
It is of utmost importance to rule out ruptured ectopic pregnancy as it is life-threatening to the mother when the proper diagnosis and management are delayed.

Conclusion

With regard to different presentation of ectopic pregnancy, in women of fertile age ectopic pregnancy must be considered.Point-of-care Ultrasound plays a critical role in the work-up and diagnosis of ectopic pregnancy in Emergency Department. In this case report, we try to bring to light the importance of utilising bedside tests like urine pregnancy test and POCUS in the Emergency Department for quick diagnosis and treatment of patients with ectopic pregnancy, especially ruptured ectopic.

References

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