

## Case Reports

**Ectopic conundrum-A case series of unusual presentations of ruptured ectopic pregnancy in a low resource setting in northeast India**


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**Abstract**

Ectopic pregnancy is a major contributor to maternal morbidity and mortality in the first trimester of pregnancy. The management of ruptured ectopic pregnancy accompanied by features of severe blood loss requires concurrent resuscitation and laparotomy to save precious life. Here we present a series of cases of ruptured ectopic pregnancy deviated from the expected intraoperative findings and the associated challenges in their management in a low-resource setting in a district hospital in North East India.

**Keywords:** Ectopic, Ruptured, Laparotomy, Resuscitation, Pregnancy

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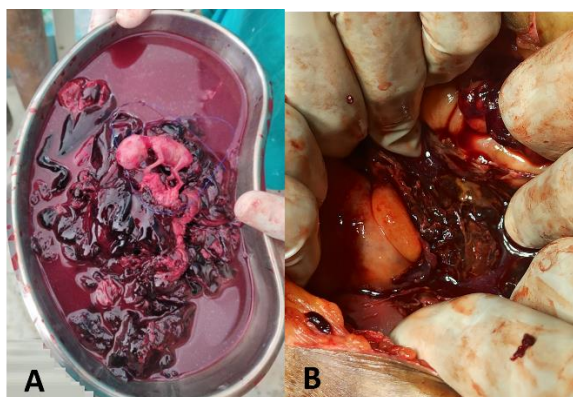
**Introduction**

Ectopic pregnancy is defined as the state when a fertilized ovum implants outside the uterine cavity and should be suspected in any woman of reproductive age group presenting with abdominal pain or vaginal bleeding. The most important risk factor of an ectopic pregnancy is infection leading to physiological dysfunction of the fallopian tube and hence tubal implantation as the fertilized ovum is unable to reach the receptive endometrium [1]. But in all cases of ectopic pregnancy, this sequence may not be followed and here we present a few cases of unusual presentation of rupture ectopic in a low-resource setting where the diagnosis and management become even more challenging.

**Case Descriptions**

**Case 1:** A 44-year-old G3P2L2 (Gravida 3, Para 2, Living 2) woman presented to the emergency with severe abdominal pain late at night and a gynaecology consultation was sought only after the urine pregnancy test came out positive the next morning. Her menstrual history revealed irregular menses with the last date of menses not known accurately. On examination, the patient was severely pale with blood pressure of 90/60 mm of Hg, pulse rate of 130 beats per minute, and respiratory rate of 25 per minute. Her abdominal examination showed distension, guarding, and rigidity; per vaginal examination revealed cervical motion tenderness and abdominal paracentesis came out to be positive for hemoperitoneum. Routine investigations like serum beta hCG, haemoglobin concentration and other viral markers were sent, but because of the

paucity of time, the decision for immediate laparotomy was taken. Intraoperatively, 3 litres of haemoperitoneum was found with 10 10-week fetus and the placenta being attached in the pouch of Douglas and omentum, with the left-sided fallopian tube ruptured in the ampullary region (Figure 1). Left-sided partial salpingectomy with right-sided tubal ligation, removal of foetus, and placenta with partial omentectomy were done. Intraoperatively 2 units of packed red blood cells were given and her post-operative period was uneventful.



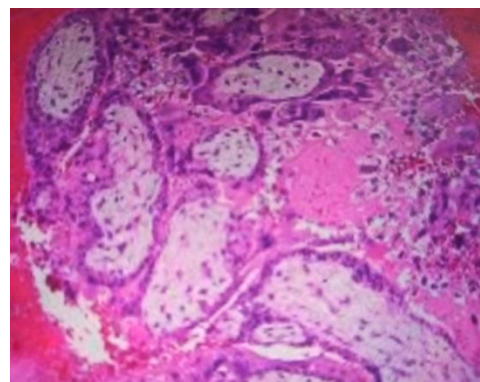
**Figure 1:** A, Intra-abdominal foetus with bits of placental tissue; B, showing placenta in the pouch of Douglas.

**Case 2:** A 33-year-old G4P3L2 presented to the emergency with a history of mild spotting per vagina and abdominal pain after she consumed abortifacient treatment containing 1 tablet of mifepristone (200mg) and 4 tablets of misoprostol (200 mg each) because she had 2 months of amenorrhea. Her menstrual history was regular, and she was on oral contraceptives, but last two months she had several pill-free intervals for unknown reasons. On examination, her blood pressure was 100/70 mm of Hg, and her pulse rate was 112 beats per minute. Her abdominal examination revealed tenderness, rigidity and guarding, per vaginal examination showed cervical motion tenderness, right adnexal fullness and blood staining the examining finger. Routine investigation revealed her Haemoglobin concentration to be 8.2 g/dL, serum beta hCG of 1200 mIU/ml, ultrasound demonstrated no evidence of intrauterine gestational sac, the right adnexal hypoechoic mass of 8.4x3, 3x4.5 cm was seen not separate from the right ovary with hemoperitoneum. A provisional diagnosis of ruptured ectopic pregnancy was made and the patient was taken up for emergency exploratory laparotomy. Intraoperatively 1500 ml of

haemoperitoneum was found with a right adnexal mass and active bleeding and right-sided edematous fallopian tube and a normal left-sided ovary as well as fallopian tube (Figure 2). No other sign of any pelvic pathology like endometriosis, adhesions, or tubercles was discovered. A provisional diagnosis of ruptured ovarian ectopic was made and wedge resection was done, but as the bleeding could not be controlled right-sided salpingo-oophorectomy with left-sided tubal ligation was done. Intraoperatively two units of packed red blood cells were transfused and the post-operative period of the patient was uneventful. Histopathological examination revealed ruptured chorionic tissue embedded in the ovarian stroma suggestive of ovarian ectopic (Figure 3).



**Figure 2:** Intra-operative ovarian ruptured ectopic.



**Figure 3:** Histopathology demonstrating chorionic villi in the ovarian stroma. (H&E staining)

**Case 3:** A 32 year old G3P1L1 lady, who delivered her first child by caesarean section, presented with the chief complaints of severe pain abdomen and bleeding per vagina. She had history of one and half months of amenorrhoea and her urine pregnancy test came out to be positive. This patient gave a history of laparotomy which was done 10 months back in a different hospital.

On examination, her BP was 90/60 mm Hg, pulse rate of 120/ minute, she was severely pale with lower abdominal tenderness and guarding. On per vaginal examination, uterus was the multiparous in size, the internal os was closed with right adnexal mass and cervical motion tenderness. Emergency laparotomy was done which revealed 500 ml of hemoperitoneum and right-sided ruptured ectopic in the ampullary region of the tube. Only the distal portion of the fallopian tube was intact, the medial portion of the tube adjacent to the uterus was absent, indicating previous partial salpingectomy. Both ovaries and the left fallopian tube were normal. Post-operatively patient was stable haemodynamically and was discharged on the fifth post-operative day.

### Discussion

All the cases presented primarily with complaints of pain abdomen and bleeding per vagina, with the clinical picture of third space haemorrhage necessitating immediate resuscitative measures in the form of fluid replacement and urgent laparotomy. Clinical signs of the acute abdomen such as guarding and rigidity along with the history of amenorrhea and a positive urine pregnancy test are the guiding clue to the clinician in the path of diagnosis in the above three cases.

The above cases depict that ectopic pregnancy is an obstetric emergency and early diagnosis is the key in preventing morbidity and mortality. A routine early pregnancy scan to confirm the intrauterine location of the conceptus can help in the early diagnosis of ectopic pregnancy. There are no classical presenting symptoms in particular for any patient and a high degree of suspicion and ectopic mindedness is of utmost importance in arriving at the provisional diagnosis and sometimes laparotomy is the only means of confirming or refuting the diagnosis.

Bouyer *et al.* in their study reported the most common sites of ectopic pregnancy as ampullary, isthmic, fimbrial, ovarian, interstitial, and abdominal in the decreasing order of occurrence [2]. In our case series,

we find that the most common presentation of an ectopic pregnancy may not coincide with the most common site of ectopic pregnancy rupture site as is the scenario in case 1 [2]. Gupta *et al.* in their case series on secondary abdominal pregnancy reported that they could not remove the placenta completely in all the cases because of safety issues and the risk of torrential haemorrhage, although in our case we were lucky to be able to remove the whole of the placenta to our satisfaction [3].

Begum *et al.* reported in their case series on ovarian ectopic that after a wedge resection, it was not always possible to stop the bleeding completely and hence the removal of the ovary was necessary to achieve complete haemostasis [4]. Bouab *et al.* reported a case of unruptured ovarian ectopic in a 40-year-old primipara where the ovary had to be sacrificed for correction of the pathology and the post-operative period was uneventful [5]. In our case 2, we have found similar intraoperative features and due respect should be given to the principle of haemostasis as the ovary is a highly vascular organ.

Hayata *et al.* reported a case of recurrent ectopic pregnancy in the fallopian tube after a partial salpingectomy on the same side, where the repeat pregnancy was found on the ampullary part of the remnant of the tube [6]. Zuzarte *et al.* reported a similar case of recurrent ectopic after a partial salpingectomy attributing it to the theory of transperitoneal migration [7].

Here in all the cases, it is found that ectopic pregnancy presents a major challenge in the diagnosis and the successful outcome is dependent on the time of detection and decision for laparotomy which is guided not only by the facilities and manpower available, but also the ectopic mindedness of the operating surgeon.

### Consent

Written informed consent from the patients were taken and the academic purpose of the study was explained to them.

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