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## Case Report

# Eyes see what brain knows-a diagnostic hustle-ruptured interstitial pregnancy masqueraded as ovarian simple cyst torsion: a case report

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## ABSTRACT

Ectopic pregnancy accounts for 2-3% of total pregnancies and is one of the common causes of first-trimester bleeding and maternal morbidity and mortality. It occurs when a blastocyst gets implanted outside the uterine cavity, most commonly in the fallopian tubes. It is generally characterized by a triad of a period of amenorrhea, per vaginal bleeding, and pain in the abdomen. Around 2-4% of total ectopic pregnancies are due to implantation at the interstitial part of the fallopian tube. Being supported by nearby myometrium it usually presents late. Because of its location, it can lead to cornual rupture causing complications like torrential bleeding, which can be life-threatening. Here we present a case of a 35-year-old female presenting with acute abdominal pain, no period of amenorrhea and an ovarian cyst mimicked as ovarian cyst torsion which ultimately got diagnosed as ruptured interstitial pregnancy.

**Keywords:** Interstitial pregnancy, Acute abdomen in gynaecology, Simple cyst

## INTRODUCTION

Ectopic pregnancy is a gynecological emergency that if not treated in time may even lead to the death of the patient. In fact, around 5-10% percentage of maternal mortality of all pregnancy-related and 9-14% of first-trimester pregnancy-related deaths in India is attributed to ectopic pregnancies. It occurs when the blastocyst is implanted outside the uterine cavity, which amounts to 2-3% of total conceptions.<sup>1</sup> The most common site of ectopic pregnancy is the fallopian tubes. The exact etiology of ectopic pregnancy remains unknown, however, factors like history of ectopic pregnancy, tubal surgery, tuberculosis, pelvic inflammatory disease, smoking, chronic cervicitis, sexually transmitted infection, unilateral salpingectomy plays an important role.<sup>2</sup> It generally presents with the classic triad of a period of amenorrhea, bleeding per vaginum, and pain in the abdomen.<sup>3</sup>

## CASE REPORT

A 35-year-old woman, with previous 2 normal vaginal delivery presented with complaints of pain in her abdomen

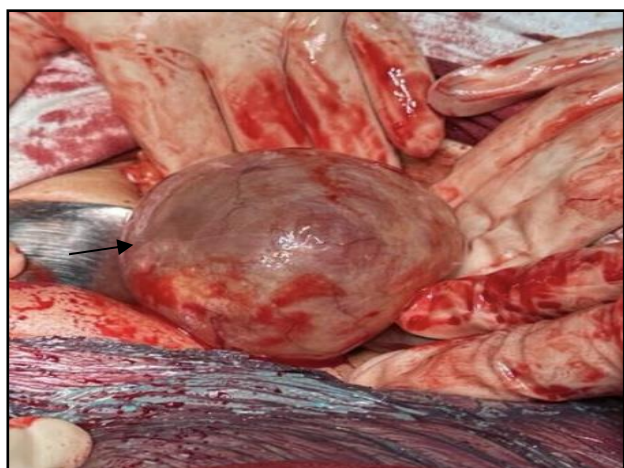
for 4-5 days, with a history of one episode of acute pain in the left iliac fossa on day 1 of her menstrual cycle which was sharp in nature, not radiating and not relieved on changing position, was associated with multiple episodes of vomiting 4 days back, which relieved on analgesics and anti-emetics. There was no history of fever and no complaint of constipation. Her last menstrual period was 4 days ago with moderate flow and with no period of amenorrhoea or missed periods before that. She had regular menses in all her previous cycles with moderate flow.

On examination, she was conscious, and oriented to time, place, and person, pallor was present. Her general condition was fair, she was afebrile, her pulse was 90 beats per minute, her blood pressure was 116/72 mm of Hg, there was no cyanosis/clubbing/icterus/distention of neck vein, her CVP was normal, and all systemic examinations were within normal limits. Per abdomen examination was soft, with no guarding/tenderness/rigidity/no McBurney point tenderness or rebound tenderness. Bowel sounds were present. Per speculum examination showed cervix and vagina were healthy, with minimally altered bleeding

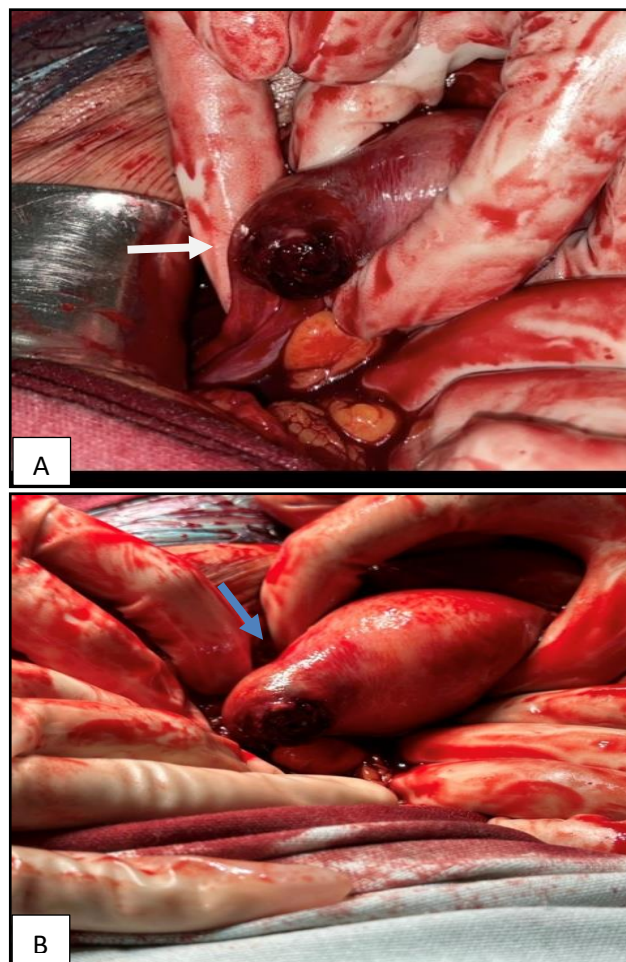
present. Per vaginal examination, findings were uterus normal in size ante-verted, right fornix free and not tender on touch, and no mass felt in the right fornix. In the left fornix, a mass of 7×6 cm was felt, a groove felt between the uterus and mass felt, with no cervical motion tenderness and the mass had restricted mobility.

Ultrasonography done after acute pain was suggestive of the left bulky ovary with a clear cyst with mild ascites with omental thickening, uterus was normal in size with an endometrial thickness of 9 mm. Repeat ultrasonography on the day of presentation to our tertiary care center i.e. 4 days after acute pain was suggestive of left adnexal simple cyst of 7×6 cm, uterus normal in size, endometrial thickness of 7 mm. A provisional diagnosis of a left-sided simple ovarian cyst with torsion detorsion sequelae was made. She was counseled regarding the clinical and ultrasonographic findings, admitted and all routine serological and biochemical investigations were sent. All blood investigations came within normal limits except for hemoglobin level, which was 7 gm/dl. She was transfused 2 units packed cell volume pre-procedure. After well-informed valid consent, she was scheduled for exploratory laparotomy in the emergency operation theatre.

Intra-operatively left simple cyst of 8×7 cm was found with no signs of torsion and detorsion sequelae (Figure 1) with a small amount of hemoperitoneum. An organized hematoma attached to the left cornua of the uterus was seen. On its removal, a ruptured interstitial pregnancy was found beneath it (Figure 2 A and B). Intraoperatively urine pregnancy test was done which came to be positive. Relatives were counseled regarding intra-operative findings and risks and after informed consent, wedge resection of left uterine cornua with left-sided salpingectomy was performed along with left-sided cystectomy with ovarian reconstruction was done. Beta HCG value was 449 IU/ml intra-operatively and the repeat value after 48 hours was 73 IU/ml. Postoperatively she remained vitally stable and was discharged with no complications.



**Figure 1: Intra-operative picture of simple ovarian cyst. No evidence of torsion present (black arrow).**



**Figure 2 (A and B): Intra-operative photo of ruptured interstitial pregnancy (white arrow points to fallopian tube, blue arrow points to ectopic pregnancy).**

## DISCUSSION

In our day-to-day clinical practices, ectopic pregnancy is generally suspected when there is a period of amenorrhea, and rupture is suspected in case of unstable vital parameters like deteriorating general condition, tachycardia, hypovolemia, and tachypnea. However, pregnancy without amenorrhea is relatively unusual but not unheard of. Around 7-24% of pregnant experience vaginal bleeding often confused as menstrual bleeding.<sup>4</sup> Here in this case, she presented to us with history of acute pain in abdomen which was 4 days back and with no complaints at present and vitally stable and was on day 4 of menses so the bleeding per vaginum which she had, was considered to be normal physiological menstruation. All her previous cycles were regular with no period of amenorrhea. Clinical as well as imaging findings were suggestive of a simple adnexal cyst, pointing towards a diagnosis of torsion detorsion sequelae, and decreased hemoglobin was considered because of partial torsion. She was counseled and prepared for emergency exploratory laparotomy. Intra-operatively simple cyst of 8 cm was delivered out with no evidence of torsion along with minimal hemoperitoneum, alarming about the need to find

the source of bleeding. On further inspection hematoma along with the product of conception in the interstitial area of uterus was seen. Intra-operatively urine pregnancy test was done which came out to be positive confirming the diagnosis of ruptured interstitial ectopic pregnancy. Relatives were informed about intra-operative findings and regarding the further plan of action, i.e. unilateral salpingectomy with uterine cornual wedge resection was done. The surgical technique consists of either cornuostomy or cornual wedge resection of uterine cornua, with unilateral salpingectomy. Recurrence is the adverse outcome of cornuostomy, whereas uterine rupture in the next pregnancy can be an adverse consequence of surgical treatment done by cornual wedge resection, probably due to the increased fragility of the gravid uterine wall.<sup>5</sup> A small amount of hemoperitoneum was present intraoperatively, which is why intraoperative inspection of the uterus, fallopian tubes, and adnexa is important to rule out other pathology as well. Differential diagnosis of ectopic pregnancy in the first trimester can be spontaneous abortion in which products of conception are seen in the vagina, threatened abortion, gestational trophoblastic disease, subchorionic hematoma etc.<sup>5</sup> This emphasizes the possibility of ruptured ectopic should always be ruled out in reproductive age group females presenting with acute abdomen even in the absence of a period of amenorrhea.

## CONCLUSION

Interstitial pregnancy is a rare type of ectopic pregnancy. As there was an absence of a period of amenorrhea in this case, along with the presence of a large simple cyst, the patient was initially diagnosed and managed as a case of ovarian cyst torsion/detorsion sequelae. Therefore, any woman of the reproductive age group who comes with an acute abdomen should undergo a urine pregnancy test or beta HCG evaluation even if there is no period of amenorrhea. Surgical management by wedge/cornual resection is an effective method of management of interstitial ectopic.

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## REFERENCES

1. Mullany K, Minneci M, Monjaze R, Coiado OC. Overview of ectopic pregnancy diagnosis, management, and innovation. *Womens Health (Lond)*. 2023;19:17455057231160349.
2. Tankeng CA, Ekei QM, Ngunyi YL, Eugene VY, Elvis NA, Alfred AM. Successful management of an advanced interstitial ectopic pregnancy in a resource-limited setting: a case report. *J Med Case Rep*. 2024;18(1):168.
3. Ilea C, Ovidiu-Dumitru I, Olivia-Andreea M, Irina S, Bogdan D. The Very First Romanian Unruptured 13-Weeks Gestation Tubal Ectopic Pregnancy. *Medicina*. 2022;58(9):1160.
4. Errol NR, Joong PS. Evaluation and differential diagnosis of vaginal bleeding before 20 weeks of gestation. UpToDate. 2022. Available at: <https://www.uptodate.com/contents/evaluation-and-differential-diagnosis-of-vaginal-bleeding-before-20-weeks-of-gestation/print#:~:text=Vaginal%20spotting%20or%20bleeding%20occurs,percent%20of%20pregnancies%20%5B2%5D>. Accessed on 12 September 2024.
5. Santos LTR, De Sousa Oliveira SC, Rocha LGA, Nathaniel DSS, De Sousa Figueiredo R. Interstitial Pregnancy: Case Report of Atypical Ectopic Pregnancy. *Cureus*. 2020;12(5):e8081.

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