



Misdiagnosed Abdominal Ectopic Pregnancy

Dorje Y^{1*} and Gyeltshen T²

¹Department of Obstetrics & Gynecology, Phuentsholing Hospital, Bhutan

²Department of Interventional Radiology, Jigme Dorji Wangchuk National Referral Hospital, Bhutan

Abstract

Background: An abdominal ectopic pregnancy is rare and often it is misdiagnosed as ovarian ectopic pregnancy. There is no standard treatment guideline for the diagnosis and management of abdominal ectopic pregnancy. This case write-up describes an abdominal ectopic pregnancy diagnosed per-operatively and managed with combined surgical and medical intervention.

Case Report: Initially the patient presented with lower abdominal pain with features of urinary tract infection. The urine pregnancy test was faintly positive, and the ultrasound scan of the pelvis was inconclusive. The patient was treated for a urinary tract infection. However, the pain aggravated in severity, and the repeat ultrasound scan of the pelvis showed suggestive of a right-sided ovarian ectopic pregnancy. Emergency laparotomy was performed and noted an abdominal ectopic pregnancy on the right side of the recto-uterine pouch adhered to the sigmoid colon. The right ovary was found separately from the mass and it was normal. The uterus and bilateral tubes and left ovary appeared normal. The mass was separated from the bowel and removed along with the blood clot. Patient recovery was uneventful. A single dose of methotrexate was administered on postoperative day-4, and the patient was discharged on postoperative day 7.

Conclusion: Initially abdominal ectopic pregnancy was misdiagnosed and treated as a urinary tract infection. Later misdiagnosed as an ovarian ectopic by the ultrasound scan for the abdominal pregnancy which was confirmed during the laparotomy.

Keywords: Abdominal; Ectopic pregnancy; Laparotomy; Inj. Methotrexate

Introduction

Ectopic pregnancy is an obstetrical emergency. An abdominal ectopic account for 1.3% of all ectopic pregnancies [1]. In the case of abdominal ectopic pregnancy, the fertilized ovum gets implanted commonly in the pouches around the uterus, especially in recto-uterine and vesicouterine pouches. Abdominal ectopic pregnancy is commonly found adhered to the surrounding organs like the uterus, tubes, ovaries, broad ligaments, large bowel, and abdominal side walls [2-4].

The presentation of an abdominal ectopic pregnancy varies from vague to severe pain. It is often missed diagnosed in early pregnancy and treated as a urinary tract infection [5]. There are few cases of advanced abdominal pregnancy reported which led to torrential hemorrhage and injury to surrounding organs in an attempt to remove the ectopic mass [4,6].

Ultrasound scan is used routinely to establish the diagnosis of ectopic pregnancy, however, the confirmation of the diagnosis of abdominal ectopic pregnancy is made with the per-operative finding [7]. There is no specific guideline governing the management of abdominal ectopic pregnancy unlike tubal ectopic pregnancy [8]. Abdominal ectopic pregnancy is commonly managed with surgical intervention. In recent times, minimally invasive surgical approaches are increasingly used by gynecologists for the treatment of ectopic pregnancies.

This write-up reports a missed diagnosed abdominal pregnancy as an ovarian ectopic managed with combined surgical and medical interventions.

Case Presentation

An unmarried female of 32-year-old, presented with sudden onset, vague right-sided lower abdominal pain of one-day duration. She complained of dysuria associated with abdominal pain for the same duration. She was treated for a urinary tract infection by the medical officer on duty at the emergency unit. However, the abdominal pain got aggravated, for which she had undergone an ultrasound scan of the pelvis, which showed inconclusive findings. She reported having missed

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***Correspondence:**
Yeshey Dorje, Department
of Obstetrics & Gynecology,
Phuentsholing Hospital, Chukha,
Bhutan, Tel: +97577293881

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Figure 1: Ultrasound scan image of pelvis shows a right adnexal mass with an empty gestational sac.

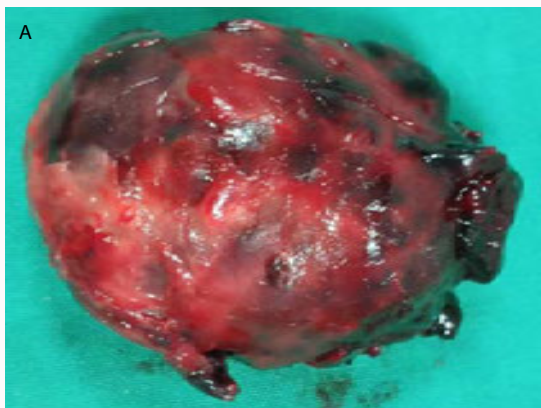


Figure 2: Abdominal ectopic pregnancy was noted as a globular mass (2A), and the cut section of the mass showed a gestational sac-like structure (2B).

her menstrual period for 8 weeks. The urine pregnancy test was performed and the result showed faintly positive. She continued on the treatment for urinary tract infection. Despite the treatment, the abdominal pain became unbearable, and she visited the gynecologist. On examination, the patient was in pain; mild pallor present, pulse rate was 110 beats/min, and BP 110/80 mmHg. There was intense pain over the right iliac fossa. On per vaginal examination, cervical excitation was positive, and a tender right adnexal mass was felt, however, the size could not be delineated due to severe tenderness. There was no vaginal bleeding. A repeat ultrasound scan was performed and noted an ill-defined, mixed echogenic right adnexal mass with the empty gestational sac of 7⁺⁵ weeks with minimal free fluid in the Pouch of Douglas. The left ovary and the uterus appeared normal without evidence of intrauterine pregnancy. The repeat urine pregnancy test was strongly positive. After corroborating the clinical findings with the ultrasound scan reports, the patient was suspected

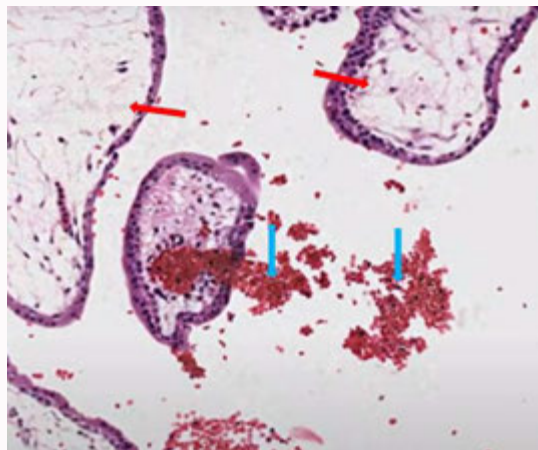


Figure 3: Hematoxylin and Eosin-stained microscopic image of tissue from mass displaying chorionic villi (red arrows) and the blood cells (blue arrows).

to have an ovarian ectopic pregnancy (Figure 1). The patient gave a history of being repeatedly treated for pelvic inflammatory diseases and having undergone multiple abdominal surgeries in the past.

The patient underwent emergency laparotomy and noted a moderate hemoperitoneum with an ill-defined mass on the right side of the recto-uterine pouch, a size of 8 cm × 10 cm, adhered to the sigmoid colon and the omentum. An intact right ovary was found separate from the mass; both the fallopian tubes, uterus, and left ovary appeared normal. The serosa of the uterus was intact without any evidence of a uteroperitoneal fistula, and there was no evidence of tubal rupture on both sides. Per-operatively the diagnosis changed to an abdominal ectopic pregnancy.

The blood clot was sucked out from the peritoneal cavity and checked for active bleeding sites. The mass was gently separated from the sigmoid colon and the omentum. Although a small piece of morbidly adhered ectopic tissues was left behind fearing the injury to the sigmoid colon, an intact mass was taken out (Figures 2A, 2B). The irrigation of the peritoneal cavity was performed with normal saline and noted minimal oozing from the deep pelvis. A drain was kept in situ to record further bleeding. The patient received two units of blood transfusion perioperatively. The patient recovered without any complications. The drain collection was minimal and taken off after 24 h of surgery. A single dose of methotrexate (50 mg/m²) IM and a folinic acid (0.1 mg/kg) IV was administered on a postoperative day 4 since the beta hCG level was 475.5 IU/ml. The repeat beta hCG level on a postoperative day 7 was normal (<5 IU/ml) and the patient was discharged home. The histopathology report was available after 2 months and it showed the immature chorionic villi in the field of blood cells (Figure 3), which confirmed an ectopic pregnancy.

Discussion

Diagnosis of abdominal ectopic pregnancy is challenging and it is often misdiagnosed. In the current case, the patient was misdiagnosed twice; firstly, treated as a urinary tract infection and second time operated on for suspected right ovarian ectopic pregnancy only to find an abdominal pregnancy during the laparotomy. Similar diagnostic challenges were reported in the literature, where most of the cases were managed as intrauterine pregnancy only to discover it as advanced abdominal pregnancy [9,10]. The patient presented with vague right-sided lower abdominal pain associated with dysuria,

and the first ultrasound scan showed inconclusive findings, and the urine pregnancy test did support the pregnancy. After corroborating the clinical presentations with the ultrasound and urine test reports, it was difficult to diagnose ectopic pregnancy. That is an acceptable approach to treating a urinary tract infection by the medical officer on duty at the emergency unit. However, further delay in diagnosis of abdominal ectopic pregnancy will lead to the advancement of the pregnancy inside the peritoneal cavity inviting more grievous complications. At the same time, a successful outcome from an advanced abdominal ectopic pregnancy was also reported in the literature [11,12].

In the current case, the patient was unmarried and denied recent sexual contact with the male. She was treated repeatedly for pelvic inflammatory diseases and had undergone multiple abdominal-pelvic surgeries in the past. Repeated sexually transmitted infections and a history of abdominal-pelvic surgeries are well-established risk factors for an ectopic pregnancy [13]. Therefore, it is important to consider it as an ectopic pregnancy unless confirmed otherwise in a female of reproductive age presenting with acute abdominal pain.

Abdominal ectopic pregnancy is diagnosed based on the ultrasound scan finding intact tubes and ovaries on both sides, with an intact uterus without evidence of uteroperitoneal fistula and an absence of intrauterine pregnancy [14]. However, in the current case, the ultrasound scan failed to appreciate the abdominal pregnancy from an adnexal mass or an ovarian ectopic pregnancy. Abdominal pregnancy is of two types based on the primary sites of implantation. Most of the time, abdominal ectopic pregnancies diagnosed are 'secondary type' where a tubal or an ovarian ectopic gets dislodged and gets implanted in the peritoneal cavity. The fertilized ovum can squeeze out through the utero-peritoneal fistula and gets implanted inside the abdominal cavity [15]. On rare occasions, the fertilized ovum gets primarily implanted into the peritoneal cavity which is termed a 'primary abdominal ectopic pregnancy. The abdominal ectopic pregnancy can get implanted anywhere in the peritoneal cavity, and the commonest sites are pouches around the uterus [16,17]. In the current case, the abdominal pregnancy was found on the right side of the recto-uterine pouch which was morbidly adhered to the sigmoid colon.

The abdominal ectopic pregnancy is commonly managed with surgical interventions. There is no role for expectant or conservative management if the diagnosis of abdominal ectopic pregnancy is ascertained. A few cases of abdominal pregnancy were managed with surgical intervention followed by medical treatment [18]. In the current case, the patient had undergone laparotomy and was monitored with a beta hCG level. The patient received methotrexate on a postoperative day 4 since the beta hCG was still high. The beta hCG level on postoperative day 7 was normal and the patient was discharged home.

Conclusion

An abdominal pregnancy was misdiagnosed as urinary tract infection and ovarian ectopic pregnancy. The diagnosis of abdominal ectopic pregnancy was confirmed during the laparotomy.

There is a need for obstetricians and gynecologists to have good knowledge of ultrasound image interpretation and to have a high index of suspicion of ectopic pregnancy in females who presented with abdominal pain despite the inconclusive ultrasound finding and to manage appropriately to overcome the grievous consequences.

References

1. Bouyer J, Coste J, Fernandez H, Pouly JL, Job-Spira N. Sites of ectopic pregnancy: A 10 year population-based study of 1800 cases. *Hum Reprod.* 2002;17(12):3224-30.
2. Yildizhan R, Kulusari A, Adali F, Adali E, Kurdoglu M, Ozgokce C, et al. Primary abdominal ectopic pregnancy: A case report. *Cases J.* 2009;2(8):8485.
3. Dubey S, Satodiya M, Garg P, Rani M. Primary abdominal pregnancy: A case report. *J Clin Diagnostic Res.* 2016;10(11):QD04-6.
4. Fessehaye A, Gashawbeza B, Daba M, Arusi M, Terefe T. Abdominal ectopic pregnancy complicated with a large bowel injury: A case report. *J Med Case Rep.* 2021;15(1):127.
5. Sunday-Adeoye I, Twomey D, Egwuatu EV, Okonta PI. A 30-year review of advanced abdominal pregnancy at the Mater Misericordiae Hospital, Afikpo, southeastern Nigeria (1976-2006). *Arch Gynecol Obstet.* 2011;283(1):19-24.
6. Nunyalulendho DN, Einterz EM. Advanced abdominal pregnancy: Case report and review of 163 cases reported since 1946. *Rural Remote Health.* 2008;8(4):1087.
7. Shetty VH, Gowda S, Muralidhar L. Role of ultrasonography in diagnosis of ectopic pregnancy with clinical analysis and management in tertiary care hospital. *J Obstet Gynecol India.* 2014;64(5):354-7.
8. Committee on Practice Bulletins. Clinical management guidelines for obstetrician-gynecologists. *Obstet Gynecol.* 2020;133(76):168-86.
9. Ranaei-Zamani N, Palamarchuk T, Kapoor S, Kaler MK, Atueyi F, Allen R. Diagnostic challenges of an abdominal pregnancy in the second trimester. *Case Rep Obstet Gynecol.* 2021;2021:7887213.
10. Tolefac PN, Abanda MH, Minkande JZ, Priso EB. The challenge in the diagnosis and management of an advanced abdominal pregnancy in a resource-low setting: A case report. *J Med Case Rep.* 2017;11(1):199.
11. Zuñiga LA, Alas-Pineda C, Reyes-Guardado CL, Melgar GI, Gaitán-Zambrano K, Gough S. Advanced abdominal ectopic pregnancy with subsequent fetal and placental extraction: A case report. *Biomed Hub.* 2022;7(1):42-7.
12. Hailu FG, Yihunie GT, Essa AA, Tsega WK. Advanced abdominal pregnancy, with live fetus and severe preeclampsia, case report. *BMC Pregnancy Childbirth.* 2017;17(1):243.
13. Li C, Zhao WH, Zhu Q, Cao SJ, Ping H, Xi X, et al. Risk factors for ectopic pregnancy: A multi-center case-control study. *BMC Pregnancy Childbirth.* 2015;15(1):1-9.
14. Studdiford WE. Primary peritoneal pregnancy. *Am J Obstet Gynecol.* 1942;44(3):487-91.
15. Dorjey Y. An unusual case of cervico-cutaneous fistula. *Int J Gynecol Obstet.* 2021;155(1):163-4.
16. Dorji N, Tshering S, Pradhan P, Wangchuk J. Ruptured primary abdominal ectopic pregnancy- management in a resource-low setting. *Bhutan Heal J.* 2022;8(1):37-9.
17. Ambreen A, Intsar A. Abdominal ectopic pregnancy: A diagnostic dilemma. *J. South Asian Fed Obstet Gynecol.* 2013;5(3):163-5.
18. Poole A, Haas D, Magann EF. Early abdominal ectopic pregnancies: A systematic review of the literature. *Gynecol Obstet Invest.* 2012;74(4):249-60.