

DOI: <https://dx.doi.org/10.18203/2320-1770.ijrcog20242507>

Case Report

Unruptured tubal pregnancy at 18 weeks: a case report

Obelson Revolus, Joseph V. Alexis, Jean R. Alfred, Bernard Gilles*

Department of Obstetrics & Gynecology, Hôpital Universitaire de la Paix, Port-au-Prince, West, Haiti

Received: 22 July 2024

Accepted: 16 August 2024

*Correspondence:

Dr. Bernard Gilles,

E-mail: gillesbernard91@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Ectopic pregnancy is one of the most common problems in the first trimester of pregnancy. It is rare for a tubal pregnancy to progress into later life. It is a potentially fatal condition for a woman if not detected early. Our case concerns a 33-year-old patient at 18 weeks of pregnancy, seen for abdominal pain, for whom, after evaluation, we evoked an abdominal pregnancy which, on per-op, turned out to be an evolving tubal pregnancy. This case highlights the limitation of ultrasound in distinguishing between abdominal and tubal pregnancies at this stage of pregnancy, and the need to emphasize the importance of prenatal follow-up and early ultrasound in all pregnant women, as a missed ectopic pregnancy can have serious maternal complications.

Keywords: Case report, Ectopic pregnancy, Late tubal pregnancy, Abdominal pregnancy, Ultrasonography

INTRODUCTION

Ectopic pregnancy is the implantation of the blastocyst outside the endometrial cavity.¹ The fallopian tube is the most common ectopic site, accounting for 96% of cases. The distribution of the various sites is as follows: ampullary (70%), isthmic (12%), infundibular (11.1%), ovarian (3.2%), interstitial (2.4%), abdominal (1.3%) and other rarer sites such as on a uterine scar or cervical implantation (<1%).² A tubal pregnancy may progress to rupture or resolve spontaneously, which can have a substantial effect on patient morbidity and mortality.³ Prompt identification of an ectopic pregnancy is particularly important, as ruptured tubal pregnancies continue to account for 2.7% of all pregnancy-related deaths, making them a genuine obstetric emergency.⁴

It requires early diagnosis and prompt intervention to prevent maternal mortality.⁵ The gestational age at which a tubal pregnancy is diagnosed varies from 5 to 10 weeks, with a mean gestational age of 6 weeks.⁶ Tubal pregnancies usually rupture between 5 and 9 weeks of pregnancy.⁷ We reported here a case of a late-diagnosed tubal pregnancy mistaken for an abdominal pregnancy, highlighting the importance of the diagnostic approach and

management modalities in a country with limited resources such as ours.

CASE REPORT

This was a 33-year-old female patient, G4P3A0Lc2, who presented for about two days with mild to moderate abdominal pain, especially periumbilical. As the pain persisted, she went to a community health center near her home, which, after evaluation, referred her here to the University Hospital of Peace for probable ectopic pregnancy.

She had no particular medical, surgical, or family history. For her OBGYN history, her first and third pregnancies were carried to term and ended in home births with healthy children. The second pregnancy ended in premature home delivery at seven months, and the newborn died at ten days of age. At the time of admission, her current pregnancy was 18 weeks and 2 days according to the date of her last menstrual period. She had previously made a single prenatal visit, during which she had not yet performed an ultrasound due to lack of funds. She did not consume alcohol, tobacco, or illegal drugs.

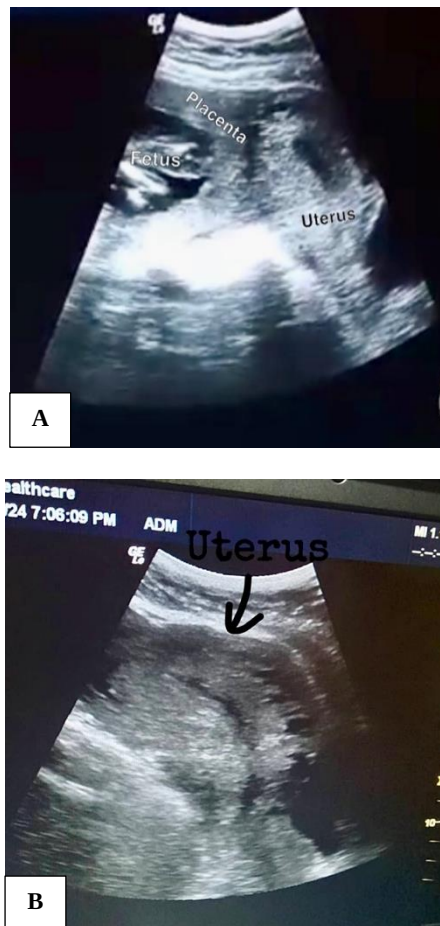


Figure 1: (A) Ultrasound scan at admission; (B) empty uterus on ultrasound scan.



Figure 2: Visualization of tubal pregnancy during surgery.

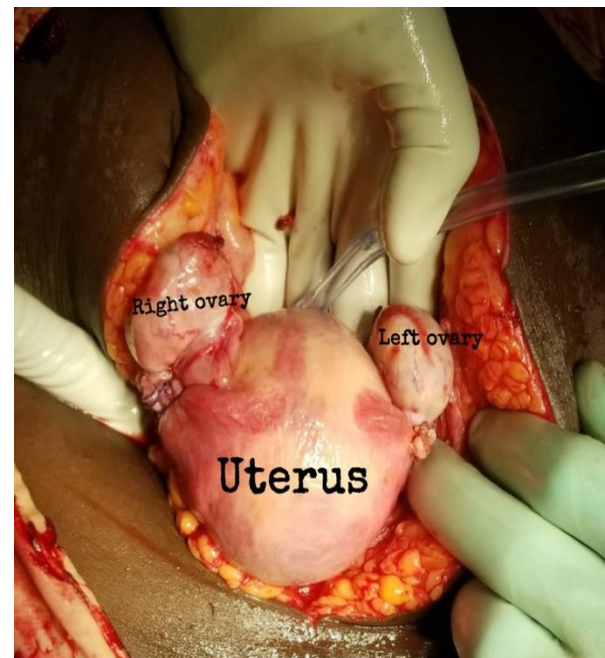


Figure 3: Uterus and ovaries after bilateral salpingectomy.

On physical examination, her vital signs were within normal limits, and cardiopulmonary evaluation was unremarkable. The abdomen was enlarged and irregularly contoured, with palpation of a soft mass, slightly painful on mobilization, in the right lower quadrant. The vulva was unremarkable; on vaginal examination, the cervix was median, long, firm, and closed; the uterus was not enlarged and there was no evidence of a latero-uterine mass, nor of pain aroused on mobilization of the cervix; the fingertips were clean. The limbs were anatomically correct. The ultrasound scan showed a slightly enlarged uterus with an empty uterine cavity and the presence of a fetus overhanging the uterus with cardiac activity, showing active movements, with no visible malformation, the amniotic fluid was in sufficient quantity and the placenta appeared to be inserted at the level of the right lateral wall of the uterine fundus (Figure 1 A and B). There was no evidence of fluid effusion into the abdomino-pelvic cavity. Her hemoglobin level was 9.7 g/dl, blood type O+, and coagulation tests were normal. The clinical impression of abdominal pregnancy at 18 weeks and 2 days was retained. As a result, she was prepared for surgery.

Under general anesthesia, a midline incision was made from the pubic symphysis above the umbilicus to the entrance to the abdominal cavity. We visualized the uterus and left adnexa, which were unremarkable, but to our astonishment, we realized that the pregnancy was located in the right ampulla, which was fully dilated and had some adhesions with the omentum (Figure 2). After adhesiolysis, as the patient no longer wished to become pregnant, bilateral salpingectomy was performed (Figure 3). The rest of the surgery was uneventful. After three uncomplicated days post-op, the patient was discharged.

DISCUSSION

Tubal pregnancy accounts for 96% of all ectopic pregnancies.² Interestingly, half of those diagnosed with an ectopic pregnancy have no known risk factors.⁴ The clinical course of ectopic pregnancy can range from a completely asymptomatic state to peritoneal irritation due to bleeding into the peritoneal cavity or even hypovolemic shock.⁸ It is always treated early for the typical clinical manifestations of delayed menstruation, abdominal bleeding and pain, and massive intraperitoneal hemorrhage. Nearly 80% of these women have ruptured fallopian tubes in early pregnancy.^{9,10} In developing countries, ectopic pregnancies are most often discovered at the time of rupture, due to the lack of economic means to perform ultrasonography. In our case, the patient complained only of mild abdominal pain, had no rupture and was hemodynamically stable.

They usually rupture in the first trimester, between 5 and 9 weeks of pregnancy.⁷ However, some cases of advanced and even full-term tubal pregnancies have been reported with different presentations.¹¹ The diagnostic tools for ectopic pregnancy are a combination of clinical examination, β -hCG, serum progesterone, ultrasound and laparoscopy.⁸ A parauterine mass, a thickened fallopian tube, endometrial thickness ≤ 10 mm and its hyper echogenicity are all indicators of an early tubal pregnancy.¹² Based on these considerations, early diagnosis becomes straightforward. In contrast, ultrasound findings are less useful at an advanced stage and always mimic an abdominal pregnancy until a laparotomy is performed for similar clinical manifestations and imaging features as in our case.¹³ A well-defined gestational sac with a crescent-shaped placenta would most likely represent a tubal pregnancy in the second trimester. In contrast, a deformed sac with a flattened placenta would most likely represent an abdominal pregnancy.¹⁴ Although the placenta is obviously attached to the inner surface of the fallopian tube, it is curved slightly inwards to accommodate the tubal cavity, giving the placenta the appearance of a curved moon when viewed longitudinally. However, in abdominal pregnancy, the placenta need not be curved, as it usually lies flat on the surface of the omentum, intestine or mesentery. Using various CT-Scan or MRI scans, we can distinguish a tubal pregnancy from an abdominal pregnancy.¹⁴ In our context, these examinations are not accessible to all due to their cost. The diagnosis of tubal pregnancy was made during laparotomy.

Management of ectopic pregnancy can be surgical, medical or expectant.¹⁵ It is influenced by the patient's clinical condition, the site of the pregnancy, whether it is ruptured or not, whether the patient wishes to be fertile, and the availability of appropriate infrastructure and equipment.¹⁵ The standard treatment for a ruptured ectopic pregnancy is surgery.¹⁶ This can be performed by laparotomy or laparoscopy. Surgery by these routes may be a salpingectomy, which is radical, or a linear salpingotomy, which is conservative.¹⁷ In cases diagnosed

late and with higher serum hCG levels, conservative treatment should not be the first choice. Indeed, studies suggest that cumulative pregnancy rates are not significantly higher and that the risk of recurrent ectopic pregnancy may be increased with conservative surgery in late tubal pregnancies.¹⁸ Treatment of advanced tubal pregnancy is always total salpingectomy. Even if the patient had the desire to have a child, it would be difficult to perform conservative tubal surgery because of excessive deformation of the fallopian tube.⁷ Given that our patient no longer had a desire for fertility, we opted for bilateral salpingectomy.

During the operation, we noted an adhesion of the omentum to the tubal mass, which could be one of the explanations that favored the evolution of the pregnancy. Placental development occurs at a point along the line of attachment of the mesosalpinx, and adequate blood supply and greater elasticity of the tube wall are important factors. Schokman proposed that adhesion could also have been a source of blood supply for the pregnancy.¹⁹ Due to a lack of financial means, she was unable to make early and regular prenatal visits, which prevented her ectopic pregnancy from being diagnosed in advance and could have compromised her prognosis due to this type of complication.

CONCLUSION

Given the high morbidity and mortality associated with ectopic pregnancy, it is important to maintain a high index of suspicion in patients of childbearing age with abdominal or pelvic pain and/or delayed menses. Late diagnosis of tubal pregnancy is rare, as it is unusual for the Fallopian tube to dilate to the point of containing a fetus in the second or third trimester. When an ectopic pregnancy is discovered by ultrasound at an advanced age, it is important for the operator to consider the possibility of an ampullary pregnancy, in addition to an abdominal pregnancy. In developed countries, ectopic pregnancy is usually diagnosed earlier by ultrasound. In developing countries, where resources are limited due to lack of economic means, most women do not benefit from ultrasound during pregnancy. When ultrasound is available, it is usually performed late. The development of health systems with adequate materials and equipment, and the promotion of social protection for pregnant women, is necessary to facilitate access to care for this category, with a view to early diagnosis.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

REFERENCES

1. Simsek Y, Ay MO. Analysis of ectopic pregnancies admitted to emergency department. Turk J Emerg Med. 2016;15(4):151-4.

2. 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.
3. Varma R, Gupta J. Tubal ectopic pregnancy. *BMJ Clin Evid.* 2012;2012:1406.
4. American College of Obstetricians and Gynecologists' Committee on Practice Bulletins-Gynecology. ACOG Practice Bulletin No. 193: Tubal Ectopic Pregnancy. *Obstet Gynecol.* 2018;131(3):91-103.
5. Uche-Nwida BN, Obi VO, Nwafor JI, Nweke AN, Oliobi CW, Onyema MC, et al. Epidemiology and management of ectopic pregnancy in Alex Ekwueme Federal University Teaching Hospital, Abakaliki, Southeast, Nigeria. *Open J Obstet Gynecol.* 2019;9:1202-11.
6. Barnhart KT. Ectopic pregnancy. *N Engl J Med.* 2009;361(4):379-87.
7. Biswas JK, Tewari V. A rare case of unruptured tubal ectopic pregnancy at 14 weeks gestation with live foetus in situ and review of literature. *Int J Reprod Contracept Obstet Gynecol.* 2021;10(1):422-4.
8. Hassan N, Zaheen Z, Jatoi N, Srichand P, Shaikh F. Risk factors, clinical presentation and management of 62 cases of ectopic pregnancy at tertiary care center. *J Liaquat Univ Med Health Sci.* 2009;8(3):238-41.
9. Li PC, Lin WY, Ding DC. Risk factors and clinical characteristics associated with a ruptured ectopic pregnancy: a 19-year retrospective observational study. *Medicine.* 2022;101(24):29514.
10. Schallert MD, DeAngelis G. Common and uncommon imaging presentations of ectopic pregnancy. *Contemp Diagnostic Radiol.* 2018;41(15):1-8.
11. Frachtman KG. Unruptured tubal term pregnancy. *Am J Surg.* 1953;86(2):161-8.
12. Chu RR, Liu DF, Wang M, Liu L. Ultrasonographic diagnosis of early unruptured tubal pregnancy in a community hospital. *J Int Med Res.* 2020;48(5):0300060519894436.
13. Baruah S, Latthe P, Downey GP. Presentation of advanced tubal pregnancy. *J Obstet Gynaecol.* 2004;23(4):435-6.
14. Liu J, Khan A, Johnson S, Grigorian C, Li T. The usefulness of gestational sac and placental sonographic morphology in differentiating between second-trimester tubal and abdominal pregnancy: case report and a review of literature. *J Clin Ultrasound.* 2014;42(3):162-8.
15. Eze JN, Obuna JA, Ejikeme BN. Bilateral tubal ectopic pregnancies: a report of two cases. *Ann Afr Med.* 2012;11(2):112-5.
16. Tankou CS, Sama CB, Nekame JLG. Occurrence of spontaneous bilateral tubal pregnancy in a low-income setting in rural Cameroon: a case report. *BMC Res Notes.* 2017;10(1):679.
17. Mandal RD, Ghosh S, Mitra S, Basak A, Naskar P, Seth K, et al. Bilateral tubal pregnancy: A diagnostic dilemma. *Open J Obstet Gynecol.* 2013;3:639-41.
18. Ozler A, Turgut A, Evsen MS, Sak ME, Soyduñ HE, Başaranoğlu S, et al. Long-term outcomes of radical and conservative surgery for late diagnosed tubal pregnancies. *Ginekol Pol.* 2012;83(4):280-3.
19. Schokman CM. Advanced tubal pregnancy: a case of survival of mother and baby. *Aust N Z J Obstet Gynaecol.* 1966;6(2):171-4.

Cite this article as: Revolus O, Alexis JV, Alfred JR, Gilles B. Unruptured tubal pregnancy at 18 weeks: a case report. *Int J Reprod Contracept Obstet Gynecol* 2024;13:2499-502.