

# Unruptured tubal pregnancy in the second trimester

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## Introduction

The incidence of ectopic pregnancies varies from 10 to 39.5/1,000 deliveries [1,2,3]. The ampullary portion of the fallopian tube is the most common location [4]. Many risk factors are associated with ectopic pregnancies. Tubal pregnancies generally rupture between 5 and 11 weeks of gestation [3].

However, some cases of advanced tubal pregnancies have been reported with a different presentation. This event is rare because it is unusual for the fallopian tube to dilate to the point of containing a second or third trimester foetus. The diagnosis of an ectopic pregnancy is more often made earlier by sonography in developed countries. In developing countries, where resources are limited, most women do not undergo ultrasound examination during pregnancy. Where ultrasonography is available it is usually done in the second trimester. We report a case of unruptured advanced tubal pregnancy, which we have observed for the first time in our unit.

## Case report

A 30-year-old patient, gravida 5, para 4, at 17 weeks of gestation was admitted with abdominal pain and no vaginal bleeding. Her general medical history revealed no other problems. Her four previous pregnancies had ended



Figure 1A. A large vascular mass, 15 x 15 cm which proved to be the right fallopian tube (credit Mamour Guèye).



Figure 1B. Hysterectomy with the fallopian tube and foetus that weighed 190g, without dysmorphic features on external appearance (credit Mamour Guèye).

at full term with vaginal deliveries. Her current obstetric care had included one clinic visit without sonographic examination.

The patient was haemodynamically stable without abdominal tenderness or peritoneal signs. A mass, around 15 cm in diameter, was palpable between the umbilicus and the pubic bone on the right side of the abdomen. The mass was tense with regular contours.

Mobilization was limited and painful.

Vaginal examination revealed a closed cervix. Sonographic examination found an empty uterus with a foetus in the abdominal cavity. An emergency laparotomy was carried out. A large vascular mass, 15 cm x 15 cm was found which proved to be the right fallopian tube (Figure 1A). The uterus was small with a normal left tube and ovaries. Further inspection of the pelvis and abdomen did not reveal any other abnormality.

A total hysterectomy was performed. The fallopian tube was opened. It revealed a foetus that weighed 190g. No dysmorphic features were noted (Figure 1B). The pathology examination showed a placenta invading the external surface of the fallopian tube. Histology demonstrated second-trimester villi with areas of inter villous fibrin deposit and haemorrhage. The patient had an uneventful postoperative recovery.

## Discussion

The incidence of ectopic pregnancies varies from 10 to 39.5/1000 deliveries [1,2,3]. The ampullary portion of

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the fallopian tube is the most common location. Bouyer et al. [4] reported the site of ectopic pregnancy from a 10-year population based study of 1,800 cases. They found that only 4.5% were extratubal (ovarian and abdominal) and 73% were ampullary.

Risk factors for ectopic pregnancy include a previous ectopic pregnancy, the presence of tubal damage from an infection or prior abdominal/pelvic surgery, a history of infertility, treatment for in vitro fertilization, increased maternal age and smoking [5]. Half of the women with ectopic pregnancies have no identifiable risk factors [6].

Before the introduction of “early pregnancy units” 85% of ectopic pregnancies were diagnosed after the tube ruptured but now this has greatly reduced with less maternal morbidity and mortality [6]. In developed countries, the majority of ectopic pregnancies are diagnosed using transvaginal ultrasound.

In developing countries ectopic pregnancies are most often discovered when ruptured. Cissé et al. [7], in a study in Senegal, reported 242 out of 255 (94.9%) being detected at the time of rupture. The incidence of late diagnosis is the consequence of late antenatal care and absence of ultrasound facilities and is responsible for significant mortality: 1.2% in the study of Cissé et al.

In Senegal, at least four antenatal clinic visits and three ultrasound scans, one in each trimester, are recommended during pregnancy. However because of limited financial resources, most women do not undergo ultrasound examination during pregnancy. If ultrasonography is carried out it is usually done in the second or third trimester.

Tubal pregnancies generally rupture in the first trimester between 5 and 11 weeks of gestation [3]. However, some cases of advanced tubal pregnancies were reported with different presentations. Late ultrasound examination may fail to recognize advanced tubal pregnancies as in our case. Nkwabong et al. [3] and Sachan et al. [8] reported advanced ectopic pregnancies that were diagnosed as intrauterine pregnancy with death of the foetus after several unsuccessful attempts of induction of labour. Finally they resorted to laparotomy which diagnosed the ectopic pregnancy [3, 8].

Few cases of ampullary pregnancies carried to

term have been reported in the literature. These were diagnosed at laparotomy initially planned as Caesarean section [3]. Such instances are rare because it is difficult for the fallopian tube to dilate to the point of containing a live foetus at term. Late diagnosis of ectopic pregnancy leads to major complications in almost all cases and needs emergency surgical intervention. However in our case, in spite of prolongation of the pregnancy, the patient was haemodynamically stable.

The treatment of advanced tubal pregnancy is always a total salpingectomy. Even if the patient had the desire for future child-bearing, it would be difficult to perform conservative tubal surgery due to excessive deformation of the fallopian tube [3]. In our case, we performed laparotomy due to the site of the ectopic pregnancy being near the interstitial portion of the tube.

#### References

1. Shao R. 2010. Understanding the mechanisms of human tubal ectopic pregnancies: new evidence from knockout mouse models. *Hum Reprod*; 25(3): 584-587
2. Kirk E, Bourne T. 2011. Ectopic pregnancy. *Obstet Gynecol Reprod Med*; 21(7): 207-211.
3. Nkwabong E, Tincho EF. 2012. A case of a 26-week ampullary pregnancy mimicking intrauterine fetal death. *Anatol J Obstet Gynecol*; 1(2): 1-3.
4. Bouyer J, Coste J, Fernandez H, Pouly JL, Job-Spira N. 2002. Sites of ectopic pregnancy: a 10-year population-based study of 1800 cases. *Hum Reprod*; 17(12): 3224-3230.
5. Radaelli T, Bulfamante G, Cetin I, Marconi AM, Pardi G. 2003. Advanced tubal pregnancy associated with severe fetal growth restriction: a case report. *The Journal of Maternal-Fetal and Neonatal Medicine*; 13: 422-425.
6. Marion LL, Meeks GR. 2012. Ectopic pregnancy: History, incidence, epidemiology, and risk factors. *Clin Obstet Gynecol*; 55(2): 376-386.
7. Cissé CAT, De Bernis L, Faye EO, Diadhiou F. 2002. Grossesse extra-utérine au Sénégal. *Carnets de Santé*; 12(2): 271-274.
8. Sachan R, Gupta P, Patel ML. 2012. Second trimester unruptured ampullary ectopic pregnancy with variable presentation: Two unusual cases. *IJCRI*; 3(8): 1-4.