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Case Report

Live unilateral tubal pregnancy: a case report

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ABSTRACT

The pain in the abdomen during pregnancy presenting to the emergency department (ED) is a big diagnostic challenge. A pregnancy that occurs most commonly in the fallopian tube, outside of the uterus is known as ectopic pregnancy. Acute appendicitis and ectopic pregnancy are the two most common causes of pain in the abdomen during pregnancy presenting to the emergency department. At 11 weeks of gestational period, 27-years-old gravida 2 para 1 presented with a 3-day history of right iliac fossa pain which was not associated with vaginal bleeding, fever, diarrhea, and vomiting. The vitals were stable on general examination. There was mild tenderness and guarding at the lower abdomen. An elevated beta-human chorionic gonadotrophin (βhCG) levels, cervical motion tenderness on digital vaginal examination, and transvaginal ultrasonography found a single live gestation with fetal heartbeat of 170 beats/min and a single placenta. The right live tubal ectopic pregnancy was diagnosed in the patient. Open right salpingectomy was performed on the patient. The patient remained stable in the postoperative period and was discharged uneventfully from the hospital.

Keywords: Tubal pregnancy, Ectopic pregnancy, Emergency department

INTRODUCTION

Incidence of extrauterine pregnancy is approximately 1.3% to 2.4% of all pregnancies.[1,4] The pain in the abdomen during pregnancy is having a list of differential diagnoses including medical, surgical, gynecological, obstetrical, and psychiatric illnesses in the ED. Due to the various differential diagnoses, obstetricians and physicians in the ED have to face this diagnostic challenge meanwhile maximizing outcomes in a time-sensitive manner for both maternal and fetus. The safety of mother and child may be threatened due to possible delays in decision-making at the ED.[1] During pregnancy, ectopic pregnancy has an incidence of up to 16% in the ED and the most common surgical disease encountered is acute appendicitis.[2] Pregnant ladies presenting to the ED with right lower abdominal pain in the early first trimester offer challenges in diagnosis for EPs due to similarities in clinical presentation between both diseases. As pregnancy advances differentiation between these 2 diseases becomes easier as almost all ectopic pregnancies are diagnosed by 8-10 weeks of gestation. Ectopic pregnancy is a pregnancy in which the developing blastocyst implants outside the endometrial cavity.[3] Here, we report an extremely rare case of unilateral live spontaneous tubal ectopic pregnancy presenting past 11 weeks of gestation.

CASE REPORT

A 27-year-old gravida 2 para 1 at 11 weeks of gestation presented to our ED with a 3-day history of right iliac fossa pain with a history of amenorrhoea of three months not associated with vaginal bleeding, fever, diarrhea, and vomiting. She was not sure of her last menstrual period and she had no previous antenatal follow-up. Her surgical and gynecologic history revealed no history of infertility

treatment and associated risk factors of ectopic pregnancy. On examination, her vitals were stable. There was mild tenderness and guarding at the lower abdomen. The cervical motion tenderness was present per vaginal examination and her β-hCG level measured 100000mIU/ml. Other laboratory results (CBC, KFT, LFT, CRP) were within normal limits. Transvaginal ultrasound showed a single live gestation with the fetal cardiac activity of 170 beats/min in the right uterine adnexa. Crown-rump length corresponded to 11 weeks of pregnancy. Acute appendicitis was considered but ultimately ruled out after an ultrasound of the abdomen revealed an empty uterine cavity. The patient was diagnosed with right live singleton tubal pregnancy and an emergency laparotomy was performed along with right salpingectomy. Her postoperative period remained uneventful up to discharge.

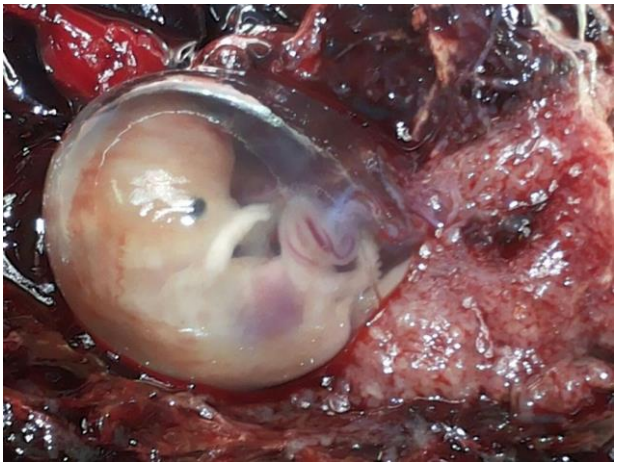

Figure 1: Live fetus in a tubal pregnancy.

DISCUSSION

Ectopic pregnancy is a common complication in the first trimester of pregnancy. Ectopic pregnancy is a pregnancy in which the developing blastocyst implants outside the endometrial cavity, most frequently (~96%) in the Fallopian tubes.[5] Ectopic pregnancy is the leading cause of maternal mortality in the first trimester, approximately 4% to 10% of all pregnancy-related deaths.[6,7]

Majority of ectopic pregnancies implant at different locations in the fallopian tube, mostly in the ampulla (70%), isthmus (12%), fimbria (11.1%), and interstitium (2.4%).[8] Previous ectopic pregnancy, tubal damage or adhesions from pelvic infection or prior abdominopelvic surgery, history of infertility, *in vitro* fertilization treatment, increased maternal age and smoking are the risk factors associated with ectopic pregnancy. Approximately 50% of women with ectopic pregnancies have no identifiable risk factors.[9]

This case of ectopic pregnancy was having 2 specific features. Firstly, it was a unilateral live spontaneous singleton tubal ectopic pregnancy. Secondly, the patient presented in her late first trimester which represented challenges in diagnosis in the ED. Majority of patients with ectopic pregnancies present at a gestational age of 6 to 10 weeks with symptoms of vaginal bleeding and/or abdominal pain. Once the measurement of the gestational sac grew beyond a diameter of 1.5 to 3.5 cm ectopic pregnancy can be complicated with rupture. Tubal ectopic pregnancies, unruptured and ruptured cases were found to present at gestational ages of 6.9±1.9 and 7.2±2.2 weeks.[10] These specific features made our case report of tubal pregnancy at 11 weeks of pregnancy unusual and extremely rare. Her unremarkable medical history and physical examination findings further obscured the diagnosis of ectopic pregnancy in this patient. Based on the chief complaint of pain in the right iliac fossa in a pregnant lady, we included ectopic pregnancy and appendicitis as our 2 differential diagnoses. Due to the high mortality and morbidity risks associated with this condition early diagnosis of ectopic pregnancy was important. Tubal rupture and subsequent hypovolaemic shock is a possibility in 32% of all such cases, with a 2.5% increase in risk for every 24-hours left untreated.

Laboratory investigation (β-hCG) and transvaginal ultra-sonographic evaluation in a patient with a suspected ectopic pregnancy played a significant role in expediting the management of patients. Our case report thus highlighted a few key points. Firstly, a differential diagnosis of ectopic pregnancy should not be completely ruled out based on previous normal antenatal examinations. Secondly, patients with tubal ectopic pregnancies can still present without rupture at a gestational age of more than 10 weeks. Spontaneous live unilateral tubal ectopic pregnancies were extremely rare, with prevalence estimated at 1 in 125,000 pregnancies.[11] Surgery is usually the preferred mode of management in this type of ectopic pregnancy and was offered to our patient.

CONCLUSION

It is unusual for an ectopic pregnancy to persist beyond the first trimester, but it can rarely present in the late first trimester or early second trimester. In all cases of surgical abdominal emergencies during pregnancy, it is important to rule out ectopic pregnancy as it is life-threatening to the mother when appropriate diagnosis and management are delayed. Timely surgical intervention is essential to avoid unwanted morbidity and at times mortality.

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