DOI: http://dx.doi.org/10.18203/2320-1770.ijrcog20201822

# **Case Report**

# Unruptured unilateral twin ectopic pregnancy: a rare case report

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Received: 06 February 2020 Revised: 25 February 2020 Accepted: 29 February 2020

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### **ABSTRACT**

Unilateral twin ectopic pregnancy is a rare entity with an incidence of 1 in 125,000 pregnancies. This is a case of a 26-year-old primigravida with a spontaneous unilateral twin ectopic gestation, diagnosed on transvaginal ultrasound, treated laparoscopically by doing unilateral salpingectomy and confirmed with histopathology. The doubt for ectopic pregnancy was raised when the serum  $\beta$ -HCG level was constantly >1500 mIU/ml and serum progesterone level was <5 pg/ml and no intrauterine pregnancy was seen. On a follow-up scan, twin gestational sac was noted in right adnexa along with a large haemorrhagic cyst in the right ovary. On post-surgery follow-up, patient was found to have had complete recovery. This case report discusses the incidence and rarity, yet possibility of twin ectopic gestations, the need for early diagnosis and its management.

**Keywords:** Ectopic pregnancy, Laparoscopic salpingectomy, Tubal ectopic, Twin ectopic gestation, Unruptured ectopic pregnancy

# INTRODUCTION

Ectopic pregnancy is a condition which occurs when the blastocyst gets implanted in any location other than endometrial lining of the uterine cavity. The incidence of tubal ectopic pregnancy in non-ART population is 1-2%. Unilateral twin ectopic pregnancy is a further rare entity with an incidence of 1 in 125,000 pregnancies and 1 in 200 ectopic pregnancies. Study present to you the rare case of unilateral twin tubal ectopic pregnancy managed laparoscopically at this center.

#### **CASE REPORT**

Among 26-year-old, Primigravida, came to this OPD with 6 weeks amenorrhea, positive pregnancy test and

complaints of lower abdomen pain and per vaginal spotting for 3 days.

#### On examination

- Vitals stable
- Per abdomen soft no tenderness, no guarding
- Per speculum normal looking vagina and cervix
- Per vaginum normal size uterus and no tenderness or mass in adnexa, slight dirty discharge on finger seen.

## Lab investigations

- S. β HCG- 3734 mIU/ml
- S. Progesterone- 2.48 pg/ml

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Transvaginal ultrasound on her first visit did not confirm any location of the pregnancy.

Considering the blood investigations, the condition was categorized as unviable pregnancy of unknown location. Patient was followed up twice weekly with blood investigations. S.  $\beta$  HCG at all times remained above 1500 mIU/ml in spite of low S. Progesterone level.

After a week's follow-up, a repeat ultrasound was done using Wipro GE Voluson P8 machine with transvaginal probe RIC 5-9 W, which confirmed the presence of twin gestational sacs in right fallopian tube with no fetal pole or viability as shown in Figure 1.

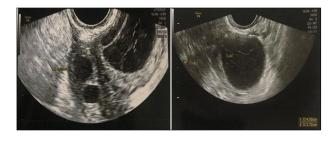


Figure 1: USG image of twin sacs in right adnexa and hemorrhagic corpus luteum.

Patient was given option for medical as well as surgical management considering the above-mentioned investigations and was asked to follow-up accordingly, but she developed severe abdominal pain in the next 48 hours and hence was rushed for laparoscopic salpingectomy of right side with the suspicion of tubal rupture.

## Intra operative

Hemoperitoneum of approx. 200 ml was noted. Uterus appeared normal.

Right sided tube appeared edematous with a gestational sac protruding from the fimbria end suggesting partial tubal abortion. The tube was intact with no sign of rupture of the tube seen.

Right ovary was enlarged with a  $4 \times 4$  cm hemorrhagic corpus luteum.

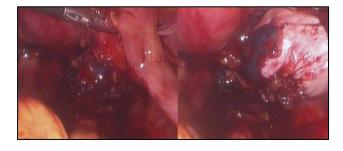


Figure 2: Partial tubal abortion of 1st SAC along with hemorrhagic corpus luteum.

Left sided tube and ovary appeared normal.

The protruded gestational sac along with the specimen of right sided salpingectomy was sent for histopathologic examination which confirmed the presence of twin tubal ectopic pregnancy.

#### Inference

The pain which patient developed was probably because of tubal abortion and not rupture.

Patient could have been managed medically, had the acute event of pain not occurred.

Laparoscopic management is shorter, faster, more confirmative and less costly option for such cases.

#### **DISCUSSION**

Ectopic pregnancy, per se, is not a rare occurrence in today's era of ART. The incidence of ectopic and/or heterotopic pregnancy in ART patients is as high as 5-15%.<sup>2</sup> But the cases of spontaneous unilateral twin ectopic pregnancy are still very rare. On undertaking an extensive PubMed research using key words like unilateral, twin, gestation, ectopic pregnancy in combination, not more than 80 articles were found.

The first unilateral twin ectopic gestation was described by De Ott in 1891 and an even lesser fraction of cases have been reported to have detected unilateral twin ectopic gestation using sonography, since Santos et al detected this condition radiologically in 1986.

Based upon the available literature, monozygotic and monoamniotic twins are more frequent among unilateral twin tubal ectopic pregnancies, nonetheless a DNA analysis theorized that they may also be dizygotic twins.<sup>3</sup> The delay in tubal transport of comparatively heavier twin- cell mass plays the major role in the occurrence of twin tubal ectopic gestation.

Tubal ectopic pregnancy is majorly detected on transvaginal ultrasound. The classical clinical trial of non-specific lower abdomen pain, vaginal bleeding and presence of adnexal mass on examination may be seen in less than half of ectopic pregnancy cases. In instances when the location of pregnancy is not confirmed or when the progress of ectopic pregnancy is to be followed up, as in our case, serum  $\beta$  HCG and serum progesterone levels play a very important role. Absence of doubling of serum  $\beta$  HCG and plateau or decrease of serum progesterone is an indicator of non- viable pregnancy and also of pregnancy located at sites other than the intra uterine cavity. Absence of doubling serum  $\beta$  HCG and plateau serum progesterone were indicators in our case also.

The most daunting and life-threatening consequence of ectopic pregnancy is ruptured ectopic pregnancy. The incidence of pregnancy-related deaths due to ectopic pregnancy accounts for 4-10%. In India 3.5-7.15 maternal deaths occur due to complications of ectopic pregnancy.<sup>4</sup> Hence, there is an urgent need to address a patient with confirmed ectopic pregnancy.

The aim of treating an unruptured ectopic pregnancy is to preserve fertility along with removing the pathology. Multiple medical regimens of Methotrexate have been used to treat singleton and multiple gestation ectopic pregnancy. With the only advantage of avoiding surgery, medical management of ectopic pregnancy is costlier, needs longer follow-up, more cumbersome, may still fail and end up with a laparotomy or laparoscopic management for the same. Therefore, patient selection for medical or surgical management must be done wisely to attain better results. With our experience we favor surgical management for patients with ectopic pregnancy.

#### **CONCLUSION**

While looking for an ectopic pregnancy on ultrasound, the possibility of multiple gestation ectopic pregnancy, even though rare, must be kept in mind. Early detection may favour medical management. But surgical management still remains more conclusive.

Funding: No funding sources Conflict of interest: None declared Ethical approval: Not required

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Cite this article as: Gaur N, Goyal PK, Jha M. Unruptured unilateral twin ectopic pregnancy: a rare case report. Int J Reprod Contracept Obstet Gynecol 2020:9:2151-3.