

## A MANAGED CASE OF RUPTURED HETEROTOPIC PREGNANCY

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### Summary

*Heterotopic pregnancy is defined as the presence of an intrauterine pregnancy co-existing with an Ectopic Pregnancy. The incidence of heterotopic pregnancy is very low. At present with the increased use of assisted reproductive techniques and in the rise in prevalence of tubal and pelvic diseases, the incidence of heterotopic pregnancy is increasing.*

*Here we reported a managed case of right sided ruptured tubal pregnancy with intrauterine gestation following natural conception.*

**Key words :** heterotopic pregnancy; ectopic pregnancy; assisted reproductive technique

### Introduction

Heterotopic pregnancy is defined as presence of an intrauterine pregnancy coexisting with an ectopic pregnancy<sup>1</sup>.

The incidence of heterotopic pregnancy is very low. With increased use of assisted reproductive techniques and in the rise in prevalence of tubal and pelvic diseases, the incidence of heterotopic pregnancy is increasing. The incidence is 1% of conceptions after use of assisted reproductive techniques.

At present the incidence is about 1 in 7000 of all pregnancies<sup>2,3,4</sup>.

Heterotopic gestation, although-common with assisted reproductive techniques is very rare in natural conception. A high index of suspicion can help in timely diagnosis and appropriate intervention. Here we reported a managed case of right sided ruptured tubal pregnancy with live intrauterine gestation following a natural conception.

### Case report

Bibi Ayesha, a 28 years old woman, hailing from Colonel Hat, Chittagong, was admitted to Gynaecology and Obstetrics department, CMCH

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on 09.04.09 with complaints of amenorrhea for 10/52 weeks, lower abdominal pain along with epigastric pain for 3 days. She had vomiting also for same duration.

According to the patient's statement she was admitted to hospital on 14.03.09 for hyperemesis gravidarum. Her pregnancy test was positive and USG of lower abdomen showing twin intrauterine pregnancy of 11 weeks of gestation. She was given conservative treatment and was discharged from hospital. She was again admitted on 01.04.09 with severe lower abdominal pain and severe anaemia. Her pulse was rapid (120 pulse/min), BP -75/60 mmHg. Per abdominal examination revealed tender abdomen and on per vaginal examination-uterus was bulky of about 12 weeks size of pregnancy, cervical excitation test negative, fornix free, non tender. She received 2 units of fresh blood and again USG was done which showed-a twin pregnancy with a live intrauterine fetus of about 13 weeks of gestation and another ectopic dead fetus in pouch of Douglas, associated with large peritoneal collection.

An emergency laparotomy was done, there was huge amount of clotted and dark liquid blood in the peritoneal cavity and a dead fetus was found in the pouch of Douglas.

The right sided fallopian tube was ruptured, grossly oedematous which was densely adherent with surrounding structures. Right sided salpingectomy was done without disturbing the intrauterine gestation and after proper peritoneal toileting, abdomen was closed in layers.

Patient received another unit of blood transfusion during operation. On the 1st post operative day of laparotomy, patient develops loose motion and respiratory distress. For this we consulted with medicine specialist and his advice was- to do serum bilirubin, serum electrolytes, chest X-ray P/A view.

The investigations revealed hypoalbuminaemia, bilateral pleural effusion. Then patient was managed accordingly.

On 7th post operative day, stitch was removed but there was wound gap. After few days of daily dressing, when the wound became healthy, secondary suture was given. Her intrauterine

gestation was allowed to continue. She received Inj. Proleuton Depot (17-hydroxyprogesterone) 200 mg deep I/M weekly up to 24 weeks of gestation.

Patient was discharged from hospital on 22.05.09 and was advised to attend Gynaecology & Obstetrics outpatient department for regular antenatal check up. Rest of her antenatal period was uneventful.

She was admitted in the hospital when labour pain started. She had normal vaginal delivery and given birth to a healthy male baby on 03.11.09. Her puerperium was smooth and discharged from hospital on 05.11.09

### Discussion

A heterotopic gestation is difficult to diagnose clinically. Usually laparotomy is to be performed because of tubal pregnancy, uterus will be found congested, softened and enlarged, ultrasound examination always shows gestational product in uterus.

The incidence was originally estimated on theoretical basis to be 1 in 30000 pregnancies. However, more recent data indicate that the rate is higher due to assisted reproductive techniques and is approximately 1 in 7000 overall and as high as 1 in 900 with ovulation induction<sup>1,5,6</sup>.

The increased incidence of multiple pregnancies with ovulation induction and IVF, increases the risk of both ectopic and heterotopic gestation. The hydrostatic forces generated during embryo transfer may also contribute to the increased risk<sup>2</sup>. There is also an increased risk in patients with previous tubal surgeries<sup>7</sup>.

Heterotopic pregnancy can have various presentations. It could be considered more likely-

- (a) after assisted reproduction techniques
- (b) after dilatation and curettage for an induced/spontaneous abortion
- (c) where the uterine fundus is larger than for menstrual dates
- (d) when more than one corpus luteum is present
- (e) where the vaginal bleeding is absent in the presence of signs and symptoms of ectopic gestation<sup>4</sup>.

A heterotopic gestation can also present as hematometra and lower quadrant pain in early pregnancy<sup>9</sup>.

Most commonly, the location of ectopic gestation in

a heterotopic pregnancy is the Fallopian tube. However, cervical and ovarian heterotopic pregnancies have also been reported<sup>6,7</sup>.

Majority of reported heterotopic pregnancies are of singleton intrauterine pregnancies. Triplet and quadruplet heterotopic pregnancies have also been reported, though extremely rare<sup>12,13</sup>.

It can be multiple as well. They can be seen frequently with assisted conceptions.

Intrauterine gestation with hemorrhagic corpus luteum can simulate heterotopic/ectopic gestation on both clinically and ultrasound<sup>14</sup>.

Other surgical conditions of acute abdomen can simulate heterotopic gestation clinically and difficulty also in bicornuate uterus with gestation in both cavities may also stimulate a heterotopic pregnancy<sup>15</sup>.

High resolution transvaginal ultrasound with color doppler will be helpful as the trophoblastic tissue in the adnexa in a case of heterotopic pregnancy shows increased flow with significantly reduced resistance index.

The treatment of a heterotopic pregnancy is laparoscopy/laparotomy for tubal pregnancy.

A heterotopic pregnancy though extremely rare, can still result from a natural conception. It requires early and timely diagnosis, a timely intervention, can result in successful outcome of the intrauterine fetus.

### Disclosure

All the authors declared no competing interestes.

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