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Case Report

HETEROTOPIC GESTATION WITH SUBSEQUENT LIVE BIRTH IN A JEHOVAH'S WITNESS: A CASE REPORT

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ABSTRACT
Heterotopic gestations occurring in spontaneous conception cycles are rare. An incidence of 1 in 30,000 has been documented. However, there is a rising rate mostly attributed to ovulation induction and assisted reproduction techniques, where it occurs in 1 to 3% of all clinical pregnancies. A high index of suspicion and use of ancillary investigations will aid diagnosis.
The management of this condition in a Jehovah's Witness presents an uncommon challenge as surgical intervention aims to salvage the intrauterine pregnancy whilst giving scrupulous attention to haemostasis. This is because blood transfusion is precluded in the management of haemorrhage in members of this sect. We present a case of heterotopic gestation that occurred spontaneously in a Jehovah's Witness; she had emergency salpingectomy and subsequently had spontaneous vertex delivery of a live baby at term.

Key Words: Heterotopic gestation, ectopic pregnancy, Jehovah's Witness. *(Accepted 23 February 2009)*

CASE REPORT
Mrs. P. I, a 28 year old para 1+0 woman who was about 12 weeks pregnant presented to us with a one-day history of severe colicky abdominal pain, vomiting and fever.
The abdominal pain was worse on her left side. There were associated headaches, dizziness and easy fatiguability. She had been vomiting (on average thrice per day) since she became pregnant. There was no vaginal bleeding. Three weeks earlier, she had a similar episode of severe abdominal pain and spotting of blood per vaginam and she was treated with analgesics and bed rest in a private hospital. She was unbooked in this pregnancy.
This was her second pregnancy, her last childbirth was two years earlier; she had twin pregnancy, complicated by excessive vomiting. She had vaginal delivery of both though first twin was stillborn. The 2nd twin weighed 2.25kg and was alive. She had never used contraceptives and had not taken fertility enhancing drugs. She had left inguinal herniorrhaphy and appendectomy 14 years and 11 years respectively. There was a strong family history of twining in her mother and aunt. She was a Jehovah's Witness.
Physical examination showed an acutely ill looking woman, mildly pale and febrile with temperature of 38°C. The chest examination was normal. The pulse rate was 120 beats per minute; regular but with small volume. The blood pressure was 110/70 mmHg and she had normal first and second heart sounds. Her lower abdomen was distended and surgical scars were seen on both iliac fossae. Bimanual palpation revealed a vague tender mass of about 8cm by 6cm size mostly in the left iliac fossa. The uterus was 14 weeks size. Pelvic examination showed normal vulva and vagina; the cervical os was closed and tenderness was elicited on moving cervix especially over the left adnexa mass. The pouch of Douglas was full and there was brownish vaginal discharge.
Ruptured ectopic gestation was suspected. Abdomino-pelvic ultrasonography confirmed a viable intra uterine fetus of gestational age 12 weeks and four days; with posterior plancentation, coexisting with an extra uterine gestation sac in left adnexa with fetal pole but no cardiac activity. There was free fluid collection in the peritoneal cavity.
Her packed cell volume was 24% and she had malaria parasites. Genotype was AA, serum urea and electrolytes were normal but there was mild proteinuria
She was resuscitated with intravenous fluids and antimalarials and antibiotics were commenced. She was counseled for laparatomy, and she insisted that she should not be transfused with blood, but rather with blood substitutes. A laparotomy was performed and findings were a gravid uterus of 14 weeks, and an ectopic gestation sac in ampulla of left fallopian tube with a small rupture site. The right fallopian tube and both ovaries were normal. There was haemoperitoneum of 500mls.
A left salpingectomy was performed and the bulky uterus was left intact. She received 1 litre of Isoplasma (a blood substitute) intra-operatively. Post-operatively she had 4 litres of dextrose saline and 2 litres of Isoplasma over 48hours. Haemogram was 7g/dl Histology confirmed tubular haemorrhagic

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tissue with gestation sac and a 16mm embryo. Microscopy showed haemorrhage, decidua and chorionic villi with evidence of pre-existing salpingitis. A repeat scan on the eight post-operative day confirmed an ongoing intra uterine pregnancy. She was discharged to the antenatal clinic on haematinics on the 9th post-operative day.

She had an uneventful antenatal care and her PCV rose to 37%. At term she had a spontaneous vertex delivery of a male baby, weighing 2.65kg. Apgar scores were 9.10 at 1 and 5 minutes. During post-natal follow-up 3months later she was found pregnant and subsequently had another uneventful pregnancy and delivery. She was thereafter referred to family planning clinic where she had injectables.

DISCUSSION

The incidence of heterotopic pregnancy (HP) is rising[1,2] probably because of rising incidence of ectopic gestation[2], pelvic infection[3] and increasing use of ovulation inducing drugs and increasing incidence of twining[4] assisted reproduction techniques[1-6]. The incidence of spontaneous heterotopic pregnancy is between 1:4000[5] and 1:30,000[3,6]. It is probably as high as1%-2.9%[1,3,6] when associated with assisted reproductive techniques (ARTs).

The heterotopic pregnancy in this report occurred spontaneously in a very fertile patient with a strong history of twining. The index pregnancy was probably a form of dizygotic twining[4,5]. A high index of suspicion of pregnancy is important in the diagnosis of HP[1-6] especially in this environment where periconceptual care is lacking and antenatal booking occur late in pregnancy. Diagnosis should have been made three weeks earlier when she presented to another health facility. Monitoring of serum beta HCG[1]and transvaginal ultrasound scan[1,6] are useful tools in diagnosis, but lacking in many centers.

The management of HP poses a challenge. The aim is to terminate the extra-uterine pregnancy while retaining a viable intra-uterine pregnancy[1-6], Hence, medical termination of the extra-uterine pregnancy[1,4-6] has been done with some success. Laparoscopic management may also have a role when ectopic sac is unruptured and patient is haemodynamically stable[1,2]. Mrs. P.I had a prompt laparatomy with gentle handling of the bulky uterus[1-6] so as to prevent a miscarriage[4,6]. Her being a Jehovah's Witness, a sect that refuses blood transfusion[7,8] posed a significant challenge in our environment where blood substitutes[8] may be lacking. However, we utilized crystalloids for her resuscitation as well as Isoplasma solution that is an artificial colloid and blood substitute[8] for her care. Speed was important in minimizing blood loss in this case. In managing Jehovah's witnesses with haemorrhage it is important to minimize blood loss by operative techniques or by haemodilution or use of agents like desmoressin[8]. Also using erythropoietin and haematinics can maximize blood production[8]. Artificial blood substitutes like fluorocarbons and colloids also have important roles[7,8]. Mrs. P.I had a satisfactory outcome as homeostasis and haemostasis were maintained.

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