Case Report

HETEROTOPIC PREGNANCY AND LAPAROSCOPIC MANAGEMENT

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ABSTRACT

Heterotopic pregnancy is an infrequent condition in which both extra and intrauterine pregnancies occur concurrently. Its incidence is very low in spontaneously conceived pregnancies. However, the incidence of heterotopic pregnancy is very high in assisted reproductive techniques reaching up to 0.2 – 1 % after ovulation induction by clomiphene citrate. In our case report, we are going to discuss a patient with heterotopic pregnancy who conceived after ovulation induction by Letrozole, an anti-estrogen drug. In our case, extrauterine pregnancy in the fallopian tube presented in form of chronic tubo ovarian (TO) mass along with the complaint of pain in the lower abdomen and intermittent bleeding from the vagina which was managed laparoscopically. Here we concluded that heterotopic pregnancy should be highly suspected in all patients with pain in the lower abdomen even after confirmation of intact intrauterine pregnancy.

Key Words: Ovulation, Heterotopic pregnancy, Letrozole

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INTRODUCTION

The coexistence of extra uterine and intrauterine pregnancy is described as heterotopic pregnancy.[1-4] It is a rare form of pregnancy with an incidence of 1/10,000-1/50,000 in a patient who conceives naturally.[5-9] Assisted reproduction techniques[9-11] such as ovulation induction with clomiphene citrate, are associated with a frequently high risk of heterotopic pregnancies ranging from 0.2% to 1%. Other risk factors for heterotopic pregnancy may include the previous history of fallopian tube surgery, previous ectopic pregnancy, history of intrauterine device placement, congenital uterine anomalies, endometriosis, and pelvic inflammatory diseases. Transvaginal ultrasound by some experienced hands is the mainstay to confirm heterotopic pregnancy.[12] However it has low sensitivity and diagnosis can be missed as in our case.[13-14] Surgical approach is the favorable option for the management of heterotopic pregnancy.[15]

A standard surgical approach is laparoscopic salpingectomy which is the least invasive procedure and always preferred for the management of heterotopic pregnancy.

Other options for management include ultrasound-guided injection of methotrexate, hyperosmolar glucose, and potassium chloride into extrauterine gestation sac.[16]

CASE REPORT

Here we have a case of a female who is 32 years old, married for 1 year. She conceived after the third cycle of ovulation induction due to anovulation and hyperprolactinemia treatment. She presented to us with gestational amenorrhea of 7+ weeks. On ultrasound, she had a single gestational sac of seven weeks without any fetal pole (missed miscarriage) and no adnexal mass (Figure 1a). She was given medical termination on an outdoor basis after that her pelvic ultrasound was carried out which showed no retained products of conception and adnexal mass (Figure 1b). One month later she presented with a complaint of continuous vaginal spotting and mild lower abdominal pain. She was vitally stable and her serum beta HCG was 537.96 mIU/ml. Her pelvic ultrasound was carried out which showed a right-sided TO mass of 62mm x 48mm x 52mm. and no free fluid. (Figure 1c).

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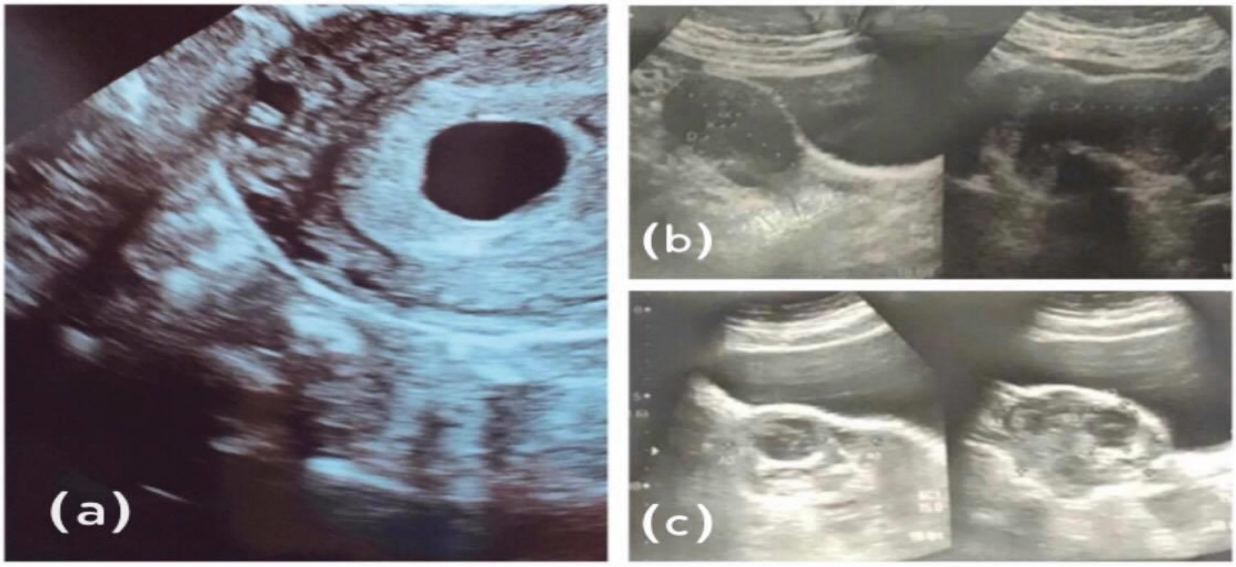

Figure 1: (a)blighted ovum, (b)empty uterus with clear adnexa, (c)right sided TO mass.

She was treated conservatively because of suspicion of inflammatory TO mass. Fifteen days later she presented with the same complaints. At that time her pelvic ultrasound showed the same findings and serum beta HCG 3.2mIU/ml. She was vitally stable. Her operative laparoscopy was carried out which showed a right-sided tubal mass of 4cm x 6cm and a healthy-looking right ovary. Mass was adherent to gut loops and surrounding tissues (Figure 2).

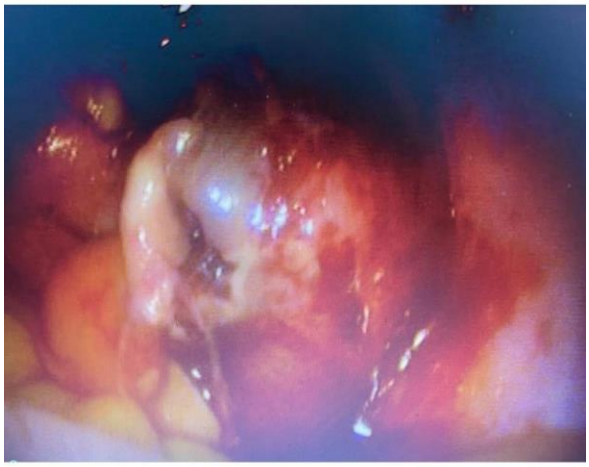

Figure 2: Laparoscopic view of a right-sided dilated tube with adherent surrounding structures.

An incision was given with monopolar diathermy on the right tubal mass and ectopic tissue was sucked out. The tube was thickened with multiple adhesions partial salpingectomy was done. The left tube was patent after the dye test. The specimen was sent for histopathology. The report followed which showed ectopic pregnancy.

DISCUSSION

Duverney was the first one to describe heterotopic pregnancy in 1708. Assisted reproductive techniques such as ovulation induction can cause a remarkable increase in the incidence of heterotopic pregnancy as in our case.[9-11] Ovulation hyperstimulation came out to be a chief risk factor as seen by Joe et el, in his study including 48 patients of heterotopic pregnancy.

The majority of heterotopic pregnancies are diagnosed late as in our case. Diagnosis of heterotopic pregnancy is mostly missed when intrauterine gestation has already been confirmed by ultrasound.[17] Pain is the most common presenting symptom in patients with heterotopic pregnancies almost in 80% of cases. Location of extrauterine pregnancy mainly defines the site of pain. Other symptoms may include unusual bleeding, shoulder tip pain, bowel and bladder problems. Heterotopic pregnancy may result in rupture of extrauterine tubal pregnancy leading to massive intraperitoneal bleeding. If not managed timely it can result in hypovolemic shock, DIC, and ultimately death of the patient may occur.

According to Majunder[18], for the confirmation of heterotopic pregnancy, both serum beta HCG and transvaginal ultrasound with a detailed view of both adnexa are necessary for early gestation. In our case serum beta, HCG became normal but adnexal mass kept increasing in size. The reason for abdominal pain in our case was intra-abdominal bleed but our patient remained vitally stable.

Laparoscopic removal of extrauterine pregnancy is the safest and feasible surgical approach for the management of heterotopic pregnancy as it is a minimally invasive procedure. It exposes the patient to minimize blood loss, less post-operative pain, and fewer surgical wounds. Also, it comes up with a better view to localize extrauterine gestational sac which was not previously detected by ultrasound in our case.[19,20]

CONCLUSION

Differential diagnosis of heterotopic pregnancy must be considered among all the patients who have intact intrauterine gestational sac along with lower abdominal pain and adnexal mass. Ultrasonography and MRI if needed are the essential investigations to rule out heterotopic pregnancy. For better out come early diagnosis and timely management by laparoscopy or laparotomy is needed.

AUTHOR'S CONTRIBUTION

FF: Conception of data and critical review
SS: Case data collection and interpatation
SA: Drafting

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