CASE REPORT

Heterotopic Triplet Pregnancy: Bilateral Tubal Pregnancy and an Intrauterine Pregnancy

Krishna Dahiya, Nirmala Duhan, Sonal Grover, Smiti Nanda, Sunita Singh*, Neha Khaneja

Abstract

Heterotopic gestation, although common with assisted reproductive techniques, is very rare in natural conception. We report a rare case of heterotopic pregnancy, resulting from spontaneous conception, in a 30-year old woman with no known risk factors for heterotopic pregnancy. Emergency laparotomy followed by right salpingectomy, left salpingostomy and evacuation of non-viable intrauterine pregnancy contributed towards saving the patient's life.

Key Words

Heterotopic gestation, Pregnancy, Laprotomy

Introduction

Heterotopic pregnancy is defined as the coexistence of intrauterine and extrauterine gestation. Incidence of heterotopic pregnancy has been reported as 1/8000-1/30000 in natural conception (1). It may increase as high as 1% with assisted reproductive techniques (2).We hereby, report a case of heterotropic pregnancy resulting from spontaneous conception.

Case Report

A 30 year old female (gravida 2, para 1), married for 15 years presented with 7 weeks amenorrhea with acute lower abdominal pain for the last six hours. Her urine for pregnancy test was positive and it was a spontaneous conception. On examination, she was pale, her pulse rate was 120/min and blood pressure was 96/50 mm Hg. On bimanual examination, uterus was soft and bulky with cervical motion tenderness. A tender mass of size 3×3 cm was felt in the right fornix and there was fullness in the pouch of Douglas. Transvaginal sonography showed hetrotopic pregnancy with a 29 mm regular intrauterine gestation sac with fetal node and another gestation sac of 15×10 mm in the right adnexa and a heterogenic mass of size 18×23 mm in the left adnexa. Free fluid was present in the pouch of Douglas. On culdocentesis, non-coagulable blood was obtained and decision for urgent laparotomy was taken. Intraoperative findings revealed hemoperitoneum of about 750 ml and bilateral hematosalpinx. (*Fig-1*) Left tubal pregnancy was in the process of rupture, so left sided salpingostomy was done. However persistent bleeding of the right salpinx after salpingotomy required salpingectomy. Suction evacuation was done for non-viable intrauterine pregnancy. Histopathological examination confirmed bilateral ectopic (*Fig-2&3*) and an intrauterine pregnancy. Post-operative period was uneventful and was discharged 4 days later.

Spontaneous HP is a rare event occurring in one in 30000 pregnancies. The increased incidence of multiple pregnancies with ovulation induction and IVF increases the risk of both ectopic and heterotopic gestation.

From the Department of Obstetrics and Gynecology & Pathology*, Pt.Bhagwat Dayal Sharma, PGIMS, Rohtak-Haranya-India
Correspondence to : Dr.Krishna Dahiya, 74-R, Model Town Rohtak, 124001 Haryana, India

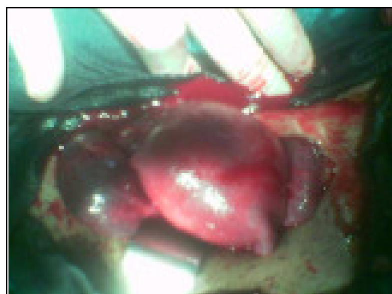

Fig-1. Clinical Photograph Showing Showing Bilateral Hematosalpinx

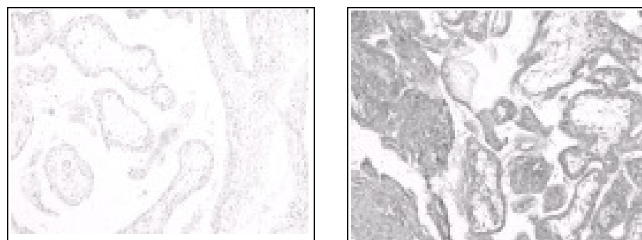

Fig 2 & 3. The Photomicrograph Showing Fallopian Tubal Lumen with Chorionic Villi and Showing Trophoblastic Tissue and Chorionic Villi (H&E stain-10X)

Techniques, number and quality of embryo transfer, pelvic and tubal condition and hormonal milieu are well known risk factors. A heterotopic gestation is difficult to diagnose clinically. Pre operative diagnosis was possible in 10% of cases. The most common location of ectopic gestation in a heterotopic pregnancy is the fallopian tube. However, rare instances of cervical, ovarian and abdominal pregnancies have also been reported.3

Majority of reported heterotopic pregnancies are of singleton intrauterine pregnancies. Triplet and quadruplet heterotopic pregnancies have also been reported, rarely. Diagnosis and management is really challenging. One has to be aware that the existence of an intrauterine gestation sac does not preclude the risk of nidation of other embryos in ectopic sites esp. in the era of ART in which chances are 300 times than spontaneous conception. The most important aid in the diagnosis of heterotopic pregnancy is the utilization of a high-resolution transvaginal sonography with color Doppler.4 Laparoscopic removal of tubal or extratubal ectopic pregnancy does not have unfavorable effect on the successful maintenance of intrauterine pregnancy. With early diagnosis and intervention, the chances of normal intrauterine pregnancy, to continue, increase to 70%. Maintenance of intrauterine pregnancy is the suggested approach in the management of heterotopic pregnancy. Meticulous attention has to be paid to avoid rupture of corpus luteum during laparoscopy/ laparotomy. In case of corpus luteum rupture, progesterone supplementation should be started.5

The decision of salpingostomy vs. salpingectomy should be made during surgery and conditions including tubal damage, hemodynamic status of the patient and surgeon's expertise should be taken into account.

Conclusion

To conclude, high index of suspicion for early diagnosis and timely intervention in HP can result in successful outcome of the intrauterine pregnancy, though not in our case, as it was a non-viable pregnancy at the time of diagnosis.

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