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CASE REPORT

Spontaneous Heterotopic Pregnancy

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ABSTRACT

The prevalence of heterotopic pregnancy is increasing worldwide, due to the widespread practice of assisted reproductive technology and the availability of more precise diagnostic techniques. However, spontaneous heterotopic pregnancy is a rare clinical condition where it occurs in a natural conception. It has a historic incidence of 1 in 30,000. We report a case of 30 years old women, gravida 6, para 3, abortion 2 without having any risk factor for ectopic pregnancy who conceived spontaneously and was diagnosed ultrasonographically as heterotopic pregnancy, i.e. with concomitant right tubal pregnancy and intrauterine gestation. The patient presented with pain in lower abdomen and was managed laparoscopically. Due to its rarity, a high degree of clinical suspicion is required to make a diagnosis of heterotopic pregnancy. Thus, we infer that the diagnosis of heterotopic pregnancy should be suspected in all women in the reproductive age, reporting with early pregnancy.

Keywords: Heterotopic pregnancy, Laparoscopy, Ultrasound.

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INTRODUCTION

Spontaneous heterotopic pregnancy is the coexistence of intrauterine pregnancy with an ectopic pregnancy in a natural conception. It was first reported in 1948. Its incidence is 1:30,000 in spontaneous conception,[1] while in last few decades there has been an increase in frequency of heterotopic pregnancy. The rise in frequency is due to the availability as well as increasing use of precise diagnostic facilities coupled with increasing incidence of Pelvic inflammatory disease (PID), endometriosis, tubal surgeries, ARTs and ovulation induction regimes.[2] Because of increasing incidence of heterotopic pregnancy, obstetricians should be alert to the fact that confirming an intrauterine pregnancy clinically or by ultrasound does not exclude a coexisting ectopic pregnancy more so when there are no contributory factors for the same. We report a case of spontaneous heterotopic pregnancy which was missed during her first visit to a clinic.

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CASE REPORT

A 30-year-old female having no coexisting risk factor for ectopic pregnancy reported to our hospital with history of one and half months amenorrhea and pain lower abdomen for 3 days. She visited a local clinic a week after her missed period and was diagnosed to have a normal intrauterine pregnancy by urine pregnancy test and transvaginal ultrasound. The patient, a sixth gravida, had a previous history of three full term normal vaginal deliveries and two spontaneous abortions. Her child birth was 10 years back and, thereafter, she was using barrier method of contraception. She had not taken any ovulation induction drugs and there was no history suggestive of PID, endometriosis or tubal surgery.

On examination, her vitals were stable and there was no positive finding on per abdomen and per vaginum examination. Repeat urine pregnancy test was positive. Pelvic ultrasound revealed intrauterine gestational sac of less than 6 weeks with a heterogenous mass of size 3.5 × 3.2 cm adjacent to the right ovary with free fluid in the pelvis (Fig. 1). Doppler was also used, to find out the trophoblastic activity in the adnexal mass (Fig. 2). Thus, depending on USG findings, the diagnosis of heterotophic pregnancy was made. She was admitted in our hospital and all routine preoperative investigations were within normal limits.

Laparoscopy was performed. About 100 ml of blood was found in the pelvic cavity and suctioned. Right tubal pregnancy was identified and excised by using bipolar cautery. Left tube and both the ovaries were found to be normal. Lap sterilization of the left tube along with the dilatation and evacuation of intrauterine pregnancy was performed in the same sitting, since the patient desired no further child bearing and had given her consent for the same. She had an uneventful postoperative recovery. Histopathology of the samples from both uterine cavity

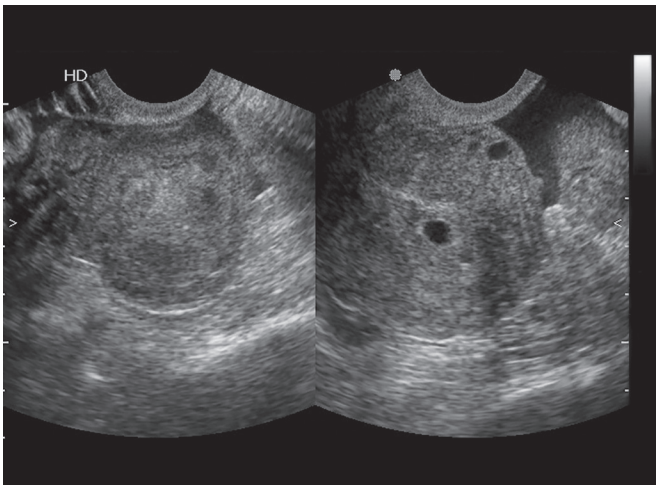

Fig. 1: Transvaginal scan (TVS) showing adnexal mass on the left and intrauterine gestational sac on the right

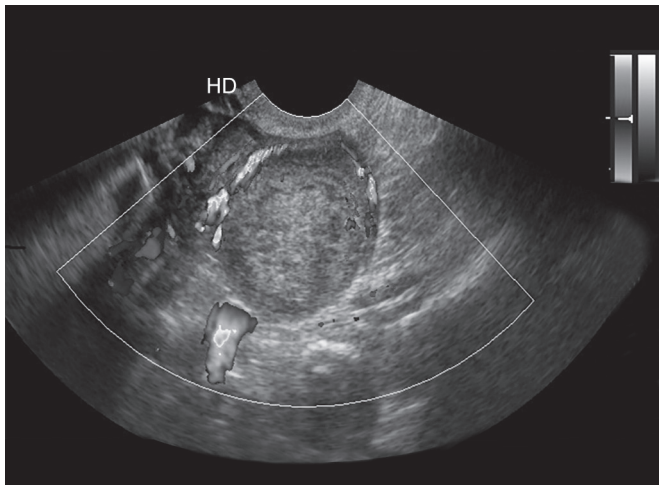

Fig. 2: Transvaginal scan color Doppler of right adnexa showing trophoblastic activity at the periphery of the ectopic mass

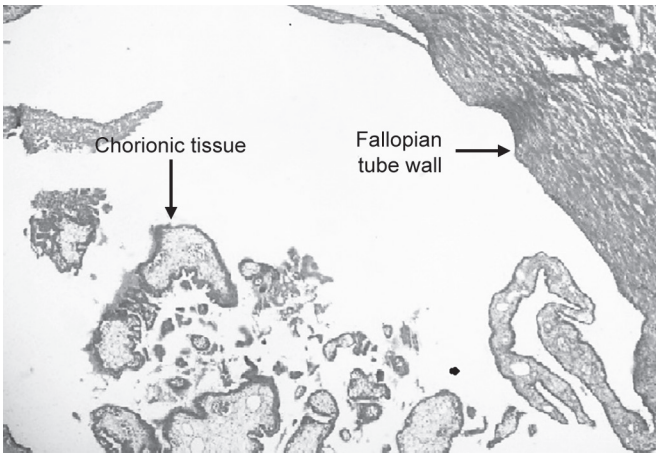

Fig. 3: Histopathology slide showing chorionic tissue with a section of fallopian tube

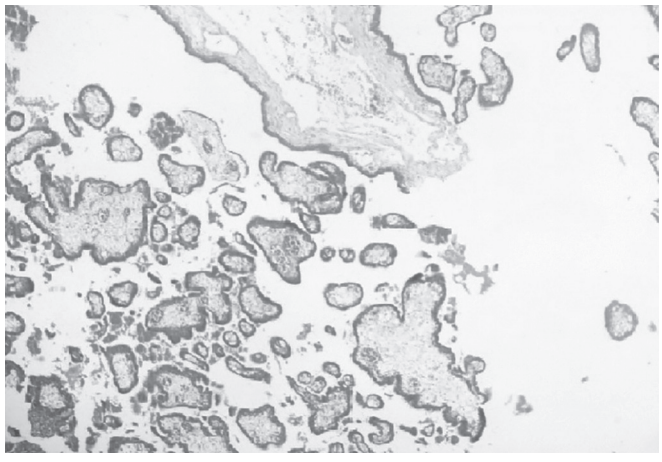

Fig. 4: Histopathology slide of product of D and E showing chorionic tissue

and excised tubal ectopic demonstrated chorionic tissue, thereby confirming our diagnosis (Figs 3 and 4).

DISCUSSION

Heterotopic pregnancy is diagnosed in presence of multiple pregnancies with one or more intrauterine pregnancies coexisting with an ectopic pregnancy. The ectopic one is usually tubal but could be ovarian, cervical, cornual or abdominal.[3] De Voc RW et al have mentioned the incidence of heterotopic pregnancy as one in 30,000 pregnancies.[1] However, in last 20 years, there has been an almost four-fold increase in incidence of ectopic pregnancy in general population and a corresponding rise in the incidence of heterotopic pregnancy.[4] This has been attributed to the increase in the incidence of PID, Intra-uterine contracephir devices (IUCD), tubal surgeries including microsurgical techniques, ovulation induction drugs and various assisted reproductive technology (ART) procedures. Recent evidences from research in reproductive technology indicates that heterotopic pregnancy occurs even more frequently in patient undergoing ovulation induction program.[5] But, a spontaneous heterotopic pregnancy though rare, but still remains a clinical entity in our practice.

The clinical scenarios presented by heterotopic pregnancy can be nonspecific and widely divergent. It can present as acute abdomen, acute appendicitis or spontaneous miscarriage. The signs and symptoms of heterotopic pregnancy can occur in other clinical conditions also. Thus, diversity in clinical presentation of heterotopic pregnancy can pose significant diagnostic dilemmas for obstetricians.

The detection rate of heterotopic pregnancy can vary from 41 to 84% with TVS.[3,6] Serial β-hCG levels are not of much significance in the diagnosis of heterotopic pregnancy as subnormal hormone production by an ectopic pregnancy can be masked by higher placental production from intrauterine pregnancy. Vourtsi et al have described a high velocity low resistance Doppler signal that is associated with developing trophoblast, and found increased sensitivity (96%) and specificity (93%) in diagnosing suspicious adnexal mass by using color

Doppler.[7] In our case, we have also used color Doppler as an evaluation modality. We have been currently using transvaginal color Doppler to assess all suspected ectopic pregnancies in our institution.

Rupture of ectopic gestation in women with heterotopic pregnancies has shown to have a significantly greater risk of hypovolemic shock requiring blood transfusion, than those with ectopic gestation alone.[8] Timely diagnosis of the ectopic component of heterotopic pregnancy can avoid life-threatening and catastrophic clinical situation by appropriate and prompt treatment. Laparoscopic intervention is the gold standard for the definitive diagnosis and treatment of heterotopic pregnancies.[2] It is, therefore, important to maintain a high index of suspicion not only in conceptions following ART cycles, ovulation induction cycles and patients with risk factors for ectopic pregnancy but also in spontaneous conception without any apparent risk factor for the patient.

Thus, we conclude that heterotopic pregnancy can occur in the absence of any other risk factor in a spontaneous cycle. An intrauterine pregnancy does not exclude the possibility of the simultaneous coexistence of an ectopic pregnancy. Hence, in all patients in the reproductive age group, even in presence of an intrauterine pregnancy, a complete scanning of the whole pelvis including adnexa should be done at the time of ultrasound to rule out the presence of heterotopic pregnancy.

REFERENCES

1. De Voc RW, Pratt JH. Simultaneous intrauterine and extrauterine pregnancy. Am J Obstet Gynaecol 1948;56(6):1119-1126.
2. Sahin G, Sahin HA, Gul A, Dpeksoy U, Kocar M. Outcome of heterotopic pregnancy without corpus luteum. Eur J Obstet Gynaecol Reprod Biol 2002;100(2):243-245.
3. Marcus SF, Macnamee M, Brinsden P. Heterotopic pregnancies after in vitro fertilization and embryo transfer. Human Reprod 1995;10(5):1232-1236.
4. Borna S, Nejad SS, Sahabi N. Heterotopic pregnancy in a Natural Conception cycle: case report. J Family Reproduct Health 2007;1(2):101-103.
5. Absunaidi MI. An unexpected spontaneous triplet heterotopic pregnancy. Saudi Med J 2005;26(1):136-138.
6. Tal J, Haddad S, Gordon N. Heterotopic pregnancy after ovulation induction and assisted reproductive technologies: a literature review for 1971 to 1993. Fertil Steril 1996;66(1):1-12.
7. Vourtsi A, Antoniou A, Stefanopoulos T, Kapetanakis E, Vlahos L. Endovaginal color Doppler sonographic evaluation of ectopic pregnancy in women after in vitro fertilisation and embryo transfer. Eur Radiol 1999;9(6):1208-1213.
8. Soriano D, Shrim A, Seidman DS, Goldenberg M, Mashiach S, Oelsner G. Diagnosis and treatment of heterotopic pregnancy. Compared with ectopic pregnancy. J Am Assoc Gynaecol Laparosc 2002;9(3):353-358.