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Case Report

Case report of unusual presentation of heterotropic pregnancy: anembryonic and ectopic pregnancy with opposite fimbrial block in a primigravida female

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ABSTRACT

Heterotopic pregnancy is defined as the co-existence of an intrauterine and extrauterine gestation. The incidence is quite low and estimated to be 1 in 30,000 of spontaneous pregnancies although it is becoming commoner in the present times with assisted reproductive technique. It can be a life-threatening condition and can be easily missed with the diagnosis being overlooked. We presented a rare case of spontaneous heterotopic pregnancy with anembryonic intrauterine gestation sac and ruptured ectopic gestation in left adnexal with a blind ending right fimbria. An early diagnosis leads to a significant reduction in morbidity and mortality with such cases and helps to improve their overall prognosis.

Keywords: Heterotopic pregnancy, Anembryonic, Ruptured ectopic

INTRODUCTION

Heterotopic pregnancy is defined as the coexistence of an intrauterine and extrauterine gestation.[1,2] It was first reported in 1708 by Duverney as an incidental finding of intrauterine pregnancy while doing an autopsy of a patient who died due to ruptured ectopic pregnancy. It is a quite rare occurrence. The incidence in the general population is estimated to be 1 in 30,000, while a rate as high as 1 in 8,000 has been reported.[3,4]

However in the last decades there has been a significant increase of heterotopic pregnancy. This raised frequency has been attributed to several factors including higher incidence of pelvic inflammatory disease and the extended use of assisted reproductive technologies. However, the spontaneous occurrence is extremely rare and the diagnosis and management require high index of suspicion and delicate handling for an improved obstetrical outcome of on-going viable intrauterine pregnancy. Transvaginal ultrasound is the key to diagnosing heterotopic pregnancy.[10,11] However, it continues to have a low sensitivity because the diagnosis is often missed or overlooked.[12,13] Therefore, the diagnosis is often delayed leading to serious consequences. Surgical intervention plays a key role in the management of heterotopic pregnancy.[14,15]

Salpingectomy is the standard surgical approach of heterotopic pregnancy. Other management options mentioned in the literature include local injection of potassium chloride, hyperosmolar glucose, or methotrexate into the sac under ultrasound guidance followed by aspiration of the ectopic pregnancy.[16] This case report elicited similar occurrence of spontaneous heterotopic pregnancy and the subsequent obstetrical outcome of the patient.

CASE REPORT

24 years old primigravida was referred to our emergency department as a case of lower abdominal pain with amenorrhea of 8 weeks. She was married for 1 year. Her urine pregnancy test was positive and she was evaluated

with emergency ultrasound. PT was hemodynamically unstable with pulse 120/m, febrile to touch and blood pressure 80/40 mmHg in right brachial artery with pallor. On per abdomen examination abdomen was rigid with severe tenderness in left iliac region. Per speculum examination was insignificant. On per vaginum examination uterus was anteverted and bulky with left adnexal fulness, os was closed with cervical motion tenderness. Right adnexa was clear. Her emergency investigations were done and an ultrasound was done.

The ultrasound showed intrauterine gestational sac with absent embryonic poles of average gestation of 8 weeks 2 days, suggestive of anembryonic gestation (Figure 1). An other irregular shaped gestational sac was seen in the left adnexa, measuring approx. 4.25×5.5 cm (Figure 2). Embryonic poles were seen within it of average gestation 6 weeks 6 days. Fetal cardiac activity was absent and positive probe tenderness in the left adnexa. Moderate hemoperitoneum was present in the pouch of Douglas and abdominal cavity. Her haemoglobin was 5.7 g/dl. Decision was made for initial dilation and evacuation for anembryonic gestation and products of conceptus were removed. Further, exploratory laparotomy was done in view of suspected ruptured ectopic pregnancy. Intra-operatively, there was hemoperitoneum of 600 cc. Uterus was enlarged to 8-10 weeks size. The left tubal mass of approx. 4.5×6 cm size was seen. The left ovary was seen separately from the mass. Left salpingectomy was done and tubal mass containing clots and fetal tissue was sent for histopathological examination (Figure 3). The right fallopian tube was incidentally detected to be blind ending and a prophylactically fimbriostomy was done. One unit of whole blood was transfused during operation and two units were transfused post-operatively. Histopathological examination showed fallopian tube fragment with features of decidualisation, confirming ectopic gestation. The post-operative period was uneventful. Pateint hemoglobin rose to 9.3 g/dl and the patient was subsequently discharged in stable condition on 5th day with follow up on regular basis.

Figure 1: Intrauterine gestation sac seen corresponding to 8 weeks 2 days. No embryonic poles are seen.

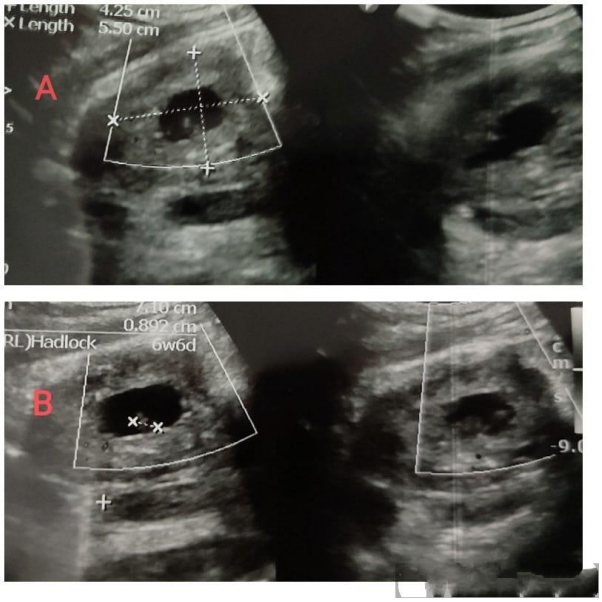

Figure 2: An irregular shaped gestational sac seen in the left adnexa, measuring approx. 4.25×5.5 cm. Embryonic poles were seen within it of average gestation 6 weeks 6 days. Fetal cardiac activity was absent.

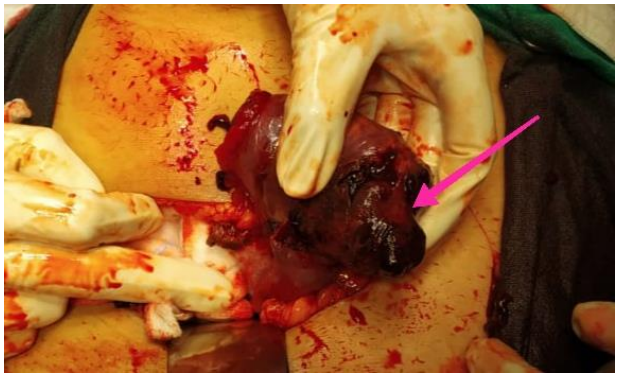

Figure 3: Left tubal mass containing clots and fetal tissue.

DISCUSSION

Heterotopic gestation, although fairly common with assisted reproductive techniques, is very rare in natural conception.[5] It occurs in 1 in 30, 000 of spontaneous pregnancies, 1 in 900 in clomiphene citrate induced pregnancies, and rises to 1% in assisted reproduction.[6] Risk factors for ectopic pregnancy are pelvic inflammatory disease (PID), tubo-ovarian abscess (TOA), previous ectopic pregnancies, previous tubal surgery, etc. Its diagnosis requires high index of suspicion and is often delayed. The presence of an intrauterine pregnancy, either viable or not, may actually mask the ectopic component of a heterotopic pregnancy, resulting in delay of diagnosis. The early diagnosis of heterotopic pregnancy is difficult; β-hCG alone is not helpful to diagnosis heterotopic pregnancy. The intrauterine pregnancy masks any

underlying β-hCG changes from the extra-uterine pregnancy and vice versa. Often the diagnosis is made during operation or after the histopathological report. In the present case, the intrauterine pregnancy and extrauterine pregnancy were discovered simultaneously via ultrasound. Surgical management was done to remove the extrauterine nonviable product of conception which allowed the viable intrauterine pregnancy to develop to term, ultimately leading to a spontaneous vaginal delivery. Thus all surgeons operating for ruptured ectopic must bear possibility of heterotopic pregnancy in mind and must handle uterus with care.[7] Treatment should be as minimally invasive as possible to preserve the developing intrauterine pregnancy.[8] With early diagnosis and treatment, 70% of the intrauterine pregnancies will reach viability.[9] All operated patients with ruptured ectopic must be followed up with clinical examination, and subsequent ultrasonography and β-hCG levels on clinical suspicion of on-going intrauterine pregnancy.

CONCLUSION

In the case of ectopic pregnancy undergoing surgical management, intrauterine device such as uterine manipulator should be generally avoided due to the likelihood of coexistence of early intrauterine pregnancy that is not visualized by ultrasound. In the case of confirmed intrauterine pregnancy with abdominal pain, further workup and close monitoring should be considered to rule out heterotopic pregnancy especially after ART techniques.

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