Case Report

Heterotopic Pregnancy; A Case Report

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Abstract

Heterotopic pregnancy is a condition in which 2 pregnancies occur at 2 different implantation sites simultaneously. Although it is a rare but a diagnostic challenge due to variable and complex clinical, laboratory and radiological findings. Here, we present a case of heterotopic pregnancy. A 28 years housewife, married for 5 years, presented with gestational amenorrhea for 2 months, mild lower abdominal pain and vaginal spotting. Pelvic USG revealed a single, alive intrauterine pregnancy and a cystic area/sac at right adnexa with a large surrounding hematoma. Laparoscopic intervention was done and large salpingectomy was done. Post-operative recovery was uneventful and post op ultrasonography showed a viable intrauterine pregnancy.

Keywords: Heterotopic pregnancy, ectopic pregnancy, pregnancy complications

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Introduction

Heterotopic pregnancy is a rare condition where at least 2 pregnancies are present simultaneously but at different implantation sites and at least one of them is located in the uterine cavity. The prevalence of heterotopic pregnancy varies from 1 in 30 000 in normal pregnancies and 1 in 100 in assisted pregnancies.[1] The most common site of ectopic pregnancy is fallopian tube. There is 90 times risk of maternal mortality in abdominal ectopic pregnancy than in a normal intrauterine pregnancy.[2] The diagnosis of heterotopic pregnancy is challenging as the aim is to move the ectopic pregnancy and preserve the intrauterine pregnancy. Even in the era of high-resolution ultrasound imaging and Doppler techniques, the heterotopic pregnancy is mostly diagnosed on the presence of acute abdominal symptoms.[3] Here, we report a case of heterotopic pregnancy with gestational amenorrhea of 2 months.

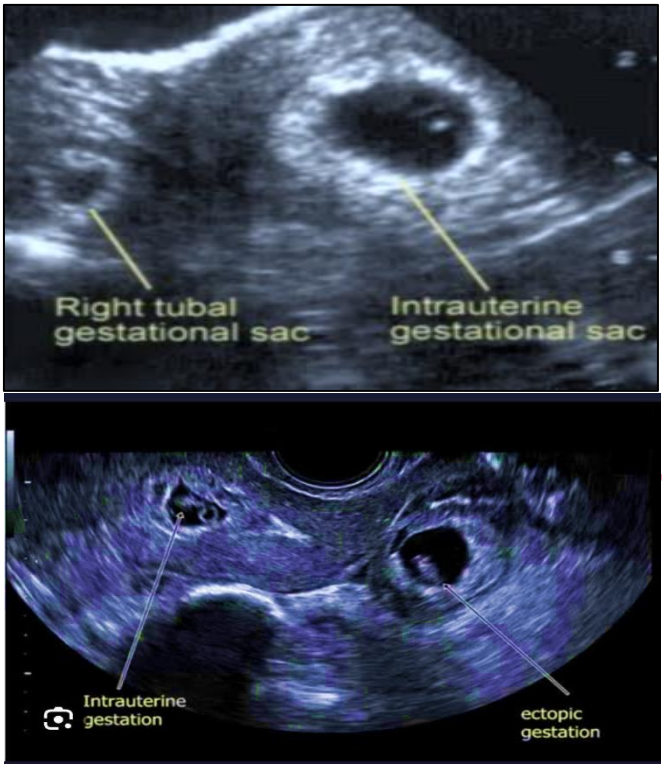
Case Report

A 28 year old female presented to Gynae and Obs department of AIMTH, Sialkot OPD with the complaint of mild lower abdominal pain for 4 to 5 days and mild vaginal spotting for 1 to 2 days. She was married for 5 years and according to her, she had gestational amenorrhea for 2 months. She had conceived spontaneously. As regard the obstetrical history, she was G3P1A1 (previous NVD) Last child born 3 years back. Gestational amenorrhea of 9 weeks was calculated by her LMP. Her UPT was positive.

Abdominal pain was gradual in onset, mild, intermittent, non-radiating, relieved by lying down and not associated with fever, nausea or vomiting. There was H/O mild vaginal spotting. There was no history of bowl or urinary symptoms. There was no significant past medical or surgical history. Examination revealed a young woman conscious and well oriented with normal vitals and afibril. Abdominal examination was unremarkable except mild tenderness in lower abdomen. On P/S, os was closed and there was no bleeding. Bimanual examination revealed 8 weeks size anteverted mobile uterus with no cervical excitation and there was fullness of right fornix.

All laboratory investigations including CBC, RBS, RFTs, and LFTs were normal. Her hemoglobin was 10g/dl and serum β hCG was 28700 IU/ml. Pelvic ultrasonography revealed an alive intrauterine pregnancy with CRL 14 mm=7 weeks with perisac collection of 45x40 m, a cystic area/sac at right adnexa with a large surrounding organizing hematoma 10.4x7.4x8.5 mm extending into cul-de-sac suggestive of right adnexal ectopic pregnancy. There was a provisional diagnosis of heterotopic pregnancy. Patient was admitted, counselling regarding diagnosis and outcome was done. High risk consent was taken. Blood

was arranged and multidisciplinary team approach was adopted and laparoscopy was performed under GA.



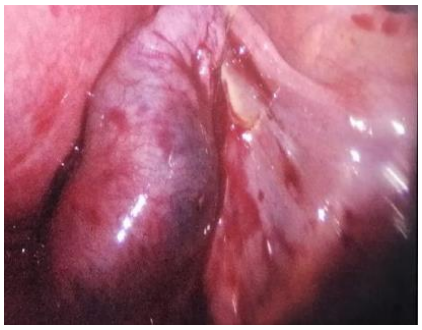
There was right-sided tubal pregnancy with organized hematoma of about 5x3 cm. Right salpingectomy was done. Right sided ovary was normal looking and hence preserved. Left sided ovary and tubes were normal looking and uterus was bulky. There was no free fluid in peritoneum. Post-operative recovery was uneventful. Patient was discharged on progesterone support. Post op scan showed alive, intrauterine pregnancy. Histopathology of specimen confirmed chorionic villi. Follow-up of the patient was unremarkable and she was delivered (SVD) at term.

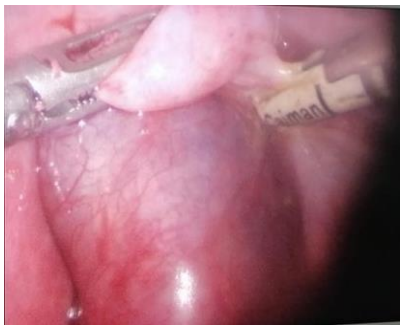
Discussion

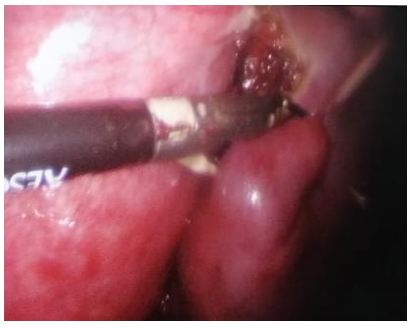
Heterotopic pregnancy is a rare form defined as the presence of intrauterine pregnancy with co-existence of ectopic pregnancy. The incidence of heterotopic pregnancy is estimated to be 1 in 30 000 in normal pregnancies and is above 1 in 100 when associated with IVF and 1 in 900 when clomiphene citrate is used.[4]

In the recent national ART surveillance system between 2001 and 2011, among 553577 pregnancies, only 85 heterotopic pregnancies were reported which is 1 per 111.[5] Our patient has spontaneous conception. Various risk factors for the development of heterotopic pregnancy include family history, tubal disease, tubal surgery, history of PID (Pelvic Inflammatory Disease), hormonal imbalance, ART (Artificial Reproductive Technique) and embryo transfer technology.[6] No risk factor was involved in our case making it a unique case. Heterotopic pregnancy remains one of the greatest diagnostic challenges for the obstetricians.

The diagnosis is often delayed due to early detection of intrauterine pregnancy and delayed visualization of adnexal abnormalities.[7] A detailed history and examination is mandatory to explore all the risk factors related to heterotopic pregnancy and also common to those of ectopic pregnancy.[8] The most common symptoms of heterotopic pregnancy include lower abdominal pain and vaginal bleeding. Most common examination findings are adnexal mass, peritoneal irritation and uterine enlargement.[9,10] Our patient also presented with gestational amenorrhea, lower abdominal pain and vaginal spotting and examination findings were 8 weeks anteverted uterus with fullness of fornixes. The first-line investigations in heterotopic pregnancy include abdominal and transvaginal ultrasound for diagnosing both pregnancies (intrauterine and ectopic) and also specifying the vitality of intrauterine pregnancy and site of ectopic pregnancy.[11] Although, the sensitivity of ultrasound varies from 26.3 % to 92.4%.[12] We were lucky enough to diagnose our case correctly using abdominal and transvaginal ultrasound and diagnosed both intrauterine and ectopic pregnancies timely. β hCG level is not reliable in diagnosing heterotopic pregnancy as intrauterine pregnancy masks all the β hCG







changes.[13] Treatment of heterotopic pregnancy can be medical (ultrasound guided intra-sac injection of methotrexate in heterotopic pregnancy) or surgical. The main aim of treatment is to conserve the viable intrauterine pregnancy and remove the ectopic pregnancy with minimal manipulation of uterus and preserve patient's fertility. If patient is asymptomatic and hemodynamically stable, expectant management can be considered to avoid surgery. In cases of hemodynamic instability and signs of rupture of ectopic pregnancy, emergency surgery is recommended which may involve salpingectomy, salpingotomy, and oophorectomy or in difficult cases, hysterectomy may be required.[13] Laparoscopy has the advantage of minimal uterine manipulation and desiccation as compared to laparotomy which can cause uterine irritability and subsequent abortion. In our case, laparoscopic intervention was done and we were able to remove the ectopic pregnancy as well as organized hematoma with preservation of viable intrauterine pregnancy.

Conclusion

Incidence of heterotopic pregnancy has increased due to ART and could be life threatening for the patient if not diagnosed early. Heterotopic pregnancy should be included in differential diagnosis of acute abdomen and standard treatment is conservative surgery, preferably laparoscopy, if patient is hemodynamically stable.

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