Case Report

HETEROTOPIC PREGNANCY

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Abstract:

Heterotopic pregnancy is a rare type of pregnancy and this report presents a detailed overview of a case of heterotopic pregnancy with live intrauterine gestation and ruptured right adenexal gestation. Coexistence of intrauterine and extrauterine gestation is known as heterotopic pregnancy and its incidence is 1: 30,000 of spontaneous pregnancies.[1-2] It is associated with significant maternal morbidity and mortality due to the risk of rupture of ectopic pregnancy. There is a false sense of security when an intrauterine gestational sac is seen. This results in the inadequate inspection of adenexae despite a strong initial clinical suspicion of ectopic pregnancy. Thorough holistic approach and ultrasonography are needed in managing these patients.

Key Words: Heterotopic pregnancy, Acute abdomen, Salpingectomy

INTRODUCTION

Heterotopic pregnancy is defined as the coexistence of intrauterine and extrauterine gestation[1-2] incidence is estimated to be 1: 30,000 of natural pregnancy.[2] However there has been a rise in cases of ectopic pregnancy and heterotopic pregnancy in last decades.[3-4] Higher incidence of pelvic inflammatory disease and wide use of assisted reproductive technologies are some of the factors due to which cases of ectopic and heterotopic pregnancies have increased.[4]However spontaneous occurrence is still reported to be extremely rare[5] and it requires careful management of viable intrauterine pregnancy.[1]

It is an uncommon and infrequently occurring case history of heterotopic pregnancy in a clinically stable patient. This case report stresses the importance of a comprehensive approach and thorough ultrasonography in managing such patients.

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CASE REPORT

A32-year-old woman ($G_6P_2A_{2+1}$) with previous two cesarean sections, two miscarriages and one ectopic pregnancy in which product of conception were removed from the right fallopian tube by milking it, three years back. She presented in our hospital in early pregnancy at 7^{+2} weeks gestation to confirm the site of pregnancy as she had a previous ectopic pregnancy. This was a spontaneous conception with no previous fertility treatment. She never practiced any contraception except the barrier method off and on.

She was completely asymptomatic at the initial consultation. A trans-vaginal ultrasound report on 29/08/16 was showing a single alive intrauterine pregnancy at 7 weeks. There was evidence of partially collapsed corpus luteal cyst in right adenexa measuring 3.1 cm x 2.0 cm with the isoechoic focus of 1.9 x 1.5 cm, likely collapsed wall of ruptured cyst in right ovarian parenchyma and no free fluid in the peritoneum or in culde-sac.

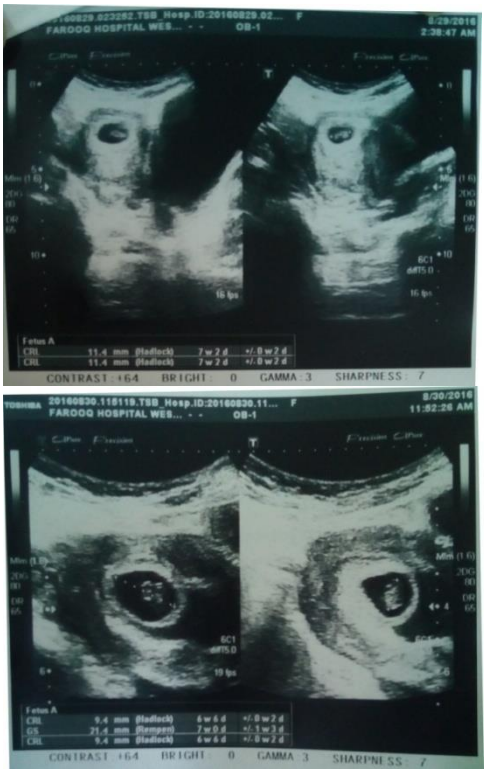

Figure 1: A transvaginal ultrasound report showing a single alive intrauterine pregnancy at 7 weeks.

The patient presented back after 10 days with a complaint of lower abdominal pain. The patient was admitted and managed conservatively, as she was hemodynamically stable. Her blood pressure was 100/70 mm hg, pulse 88/min. CBC report showed Hb% 13.3 g/dl and TLC was 10.9 x $10^{6.}$ Beta HCG level was 47605, corresponding to 9 weeks gestation. A rescan was scheduled showing alive intrauterine gestation at 9 weeks with evidence of complex right adenxal mass with multi septated cystic component measuring 5.8 x 4.8 x 4.4 cm, likely of ovarian origin with minimal adjacent free fluid in right adenaxa and culde-sac region. The patient was sent home after a few days of observation.

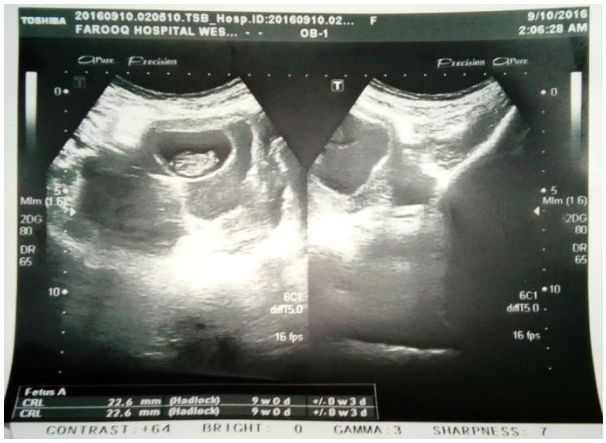

Figure 2: A transvaginal ultrasound report showing a single alive intrauterine pregnancy at 9 weeks**.**

The patient was readmitted at 11^{+}week gestation with severe lower abdominal pain. There was no vaginal bleeding. On examination, she was cold and clammy. Abdominal examination was suggestive of an acute abdomen with severe tenderness, guarding and rigidity. Clinical differential diagnosis at that stage was a ruptured corpus luteal cyst or ruptured ectopic pregnancy. Transvaginal ultrasound at that time was showing an alive intrauterine pregnancy at 11+ weeks gestation and right adenexal mass along with a streak of fluid in the hepatorenal pouch and mild to moderate fluid in culde-sac. This showed the likelihood of heterotopic pregnancy on the basis of these observations.

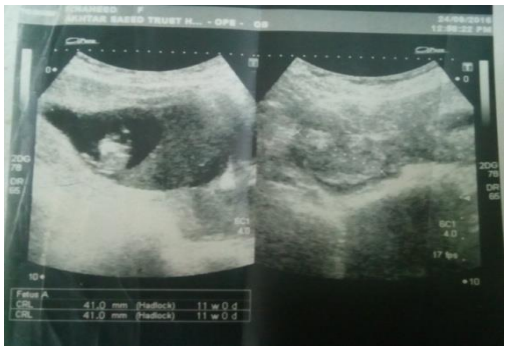

Figure 3: A transvaginal ultrasound report showing a single alive intrauterine pregnancy at 11 weeks.

Emergency laparotomy was planned on 24/9/16. Right salpingectomy was performed and about 500 cc blood clots were removed from peritoneal cavity and specimen was sent for histopathology.

Histopathology report revealed that the fallopian tube wall was showing hemorrhagic, fibrin decidual tissue with degenerated chorionic villi which suggested an ectopic pregnancy.

The patient made an unremarkable recovery from the surgery and was discharged with the advice of follow–up in the antenatal clinic. She had a regular antenatal checkup and her intrauterine pregnancy continued. At 38 weeks of gestation, elective cesarean section was done with left tubal ligation and a healthy male baby weighing 2.9 kg was delivered. Postnatal recovery was uneventful. Both mother & baby were discharged on the third postpartum day in stable condition.

DISCUSSION

Heterotopic pregnancy can cause a diagnostic dilemma because on early transvaginal ultrasound, it may not be diagnosed as an extra-uterine gestation in all cases.[5-6] Sometimes the presence of haemorrhagic corpus luteum can confuse and delay the diagnosis of heterotopic pregnancy. A study of 192 cases of heterotopic pregnancy of 2007[7] showed that only one-third of the cases were diagnosed by ultrasonography pre-operatively.

A good history is crucial for identifying risk factors related to heterotopic pregnancy[9-11] such as fertility treatment and tubal pathologieslike pelvic inflammatory disease, endometriosis or previous tubal surgeries,patients with previous ectopic pregnancy or patients who conceived while using the intrauterine device are also at risk.[7-10] The important learning point from our case was that the diagnosis was not suspected at the initial presentation and the patient presented subsequently with acute abdominal pain and with intraperitoneal hemorrhage. The finding of an intrauterine gestational sac was a misleading observation and led to false assurance. In women who have previous ectopic gestation treated surgically or non-surgically, increased vigilance is required.[8-11]Even if they are asymptomatic and intrauterine gestation is confirmed, one of the differential diagnoses of heterotopic pregnancy should be considered.

CONCLUSION

A holistic approach and repeated ultrasonographies are crucial for patients with high suspicion of ectopic pregnancy. Especially, in the presence of pelvic free fluid even with an intact intrauterine pregnancy, one must keep heterotopic pregnancy in mind.

REFERENCES

1. Govindarajan MJ, Rajan R. Heterotopic pregnancy in natural conception. Journal of human reproductive sciences. 2008 Jan; 1(1):37.
2. Hassani KI, Bouazzaoui AE, Khatouf M, Mazaz K. Heterotopic pregnancy: A diagnosis we should suspect more often. J Emerg Trauma Shock. 2010 Jul 1; 3(3):304.
3. Engdayehu D, Bekuretsion Y. Heterotopic pregnancy in a young adult: a case report. Ethiopian medical journal. 2012 Jul; 50(3):265-70.
4. Basile F, Di Cesare C, Quagliozzi L, Donati L, Bracaglia M, Caruso A, Paradisi G. Spontaneous heterotopic pregnancy, simultaneous ovarian, and intrauterine: a case report. Case reports in obstetrics and gynecology. 2012; 2012.
5. Ahmed AA, Tom BD, Calabrese P. Ectopic pregnancy diagnosis and the pseudo-sac. Fertility and sterility. 2004 May 1; 81(5):1225-8.
6. Sohail S. Hemorrhagic corpus luteum mimicking heterotopic pregnancy. Journal of the College of Physicians and

Surgeons--Pakistan: JCPSP. 2005 Mar; 15(3):180-1.
7. Raziel A, Friedler S, Herman A, Strassburger D, Maymon R, Ron-El R. Recurrent heterotopic pregnancy after repeated in-vitro fertilization treatment. Human reproduction (Oxford, England). 1997 Aug 1; 12(8):1810-2.
8. Jerrard D, Tso E, Salik R, Barish RA. Unsuspected heterotopic pregnancy in a woman without risk factors. The American journal of emergency medicine. 1992 Jan 1; 10(1):58-60.
9. Felekis T, Akrivis C, Tsirkas P, Korkontzelos I. Heterotopic triplet pregnancy after in vitro fertilization with favorable outcome of the intrauterine twin pregnancy subsequent to surgical treatment of the tubal pregnancy. Case reports in obstetrics and gynecology. 2014;2014.
10. Barrenetxea G, Barinaga-Rementeria L, de Larruzea AL, Agirregoikoa JA, Mandiola M, Carbonero K. Heterotopic pregnancy: two cases and a comparative review. Fertility and sterility. 2007 Feb 1; 87(2):417-e9.
11. Kumar R, Dey M. Spontaneous heterotopic pregnancy with tubal rupture and pregnancy progressing to term. Medical journal armed forces India. 2015 Jul 1;71:S73-5.