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Case Report

Heterotopic Pregnancy Following Ovulation Induction and Intrauterine Insemination, Laparoscopic Salpingectomy with an Ongoing Viable Intrauterine Pregnancy Post Surgery

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Abstract

Heterotopic pregnancy involves the simultaneous occurrence of both intrauterine and ectopic pregnancies. Ovarian stimulation drugs have been reported to be associated with heterotopic pregnancy. Here, I report a case of a 32-year-old woman with heterotopic pregnancy following ovulation induction with clomiphene citrate and intrauterine insemination. She visited the hospital with vaginal spotting and severe right iliac fossa pain. Transvaginal ultrasonography showed a right-side ectopic unruptured pregnancy, as well as a 10-week intrauterine pregnancy with fetal heart activity. Laparoscopic salpingectomy of the tubal ectopic pregnancy was performed, and the intrauterine pregnancy was viable and continued. Clomiphene citrate can impair fallopian tube peristalsis owing to its effects on local tubal estrogen receptors. The possibility of heterotopic pregnancy should be considered in patients who undergo assisted reproduction or those who have a history of endometriosis or previous tubal pathology.

Keywords: *Heterotopic Pregnancy; Intrauterine and Ectopic Pregnancies; Ovulation Induction; Intrauterine Insemination; Clomiphene Citrate*

Introduction

I performed an intrauterine insemination after ovulation induction with clomiphene citrate. Patient conceived with a heterotopic pregnancy, confirmed on scan. Laparoscopic salpingectomy of the tubal ectopic was performed with the intrauterine pregnancy still viable and ongoing. I present below a case study with diagnostic and the management challenges with a review of literatures on heterotopic pregnancy.

Case Study

A 32 years old para1 from a previous relationship, consult with a problem of secondary infertility. Physical examination and all other investigations were normal. Her partner sperm analysis demonstrated asthenospermia. They were counseled on the findings and agreed for an intrauterine insemination. Clomiphene citrate 100 mg daily for 5 days was given, a regular follow up for follicular tracking was performed. A transvaginal ultrasound revealed 4 follicles in the left ovary and 5 in the right ovary measuring between 18 - 22 mm on day 14. Pregnyl 10.000 IU given for ovulation trigger and sperm insemination planned 36 hours later.

A positive pregnancy test was confirmed 3 weeks after insemination. A follow up trans-vaginal ultrasound showed a gestational sac of 5 weeks with a right adnexal mass suggestive of a corpus luteum cyst, no fetal poles seen. A follow up was scheduled in 6 weeks.

Patient was brought to casualty unit 4 weeks later with two days history of spotting per vagina and severe right iliac fossa pain. The casualty officer made a diagnosis of appendicitis in pregnancy and called the general surgeon for further assistance. A transabdominal ultrasound confirm a viable intrauterine pregnancy and a right adnexal mass, the surgeon suspected an ovarian torsion and advised to call the gynecologist. On arrival in casualty, patient was stable, having right iliac fossa pain but no vaginal bleeding. Her hemoglobin was 11 g/dl, a transvaginal scan showed a right side ectopic unruptured, as well as a 10 weeks intrauterine pregnancy with fetal heart activity. Patient was counseled for laparoscopy with consent to proceed for laparotomy. At Laparoscopy a right tubal mass approximately 5 x 4 cm with about 300 ml of hemoperitoneum. Salpingectomy performed and histology confirmed tubal pregnancy. She was discharged on day 3 with next follow up on 06/10/2016 at 20 weeks.

Discussion

Heterotopic pregnancy is diagnosed with a good history and by confirming the presence of both an intrauterine together with an ectopic pregnancy at the same time on a transvaginal ultrasound [1]. ovarian stimulating drugs has been associated with heterotopic pregnancy with rate as high as 1 per 900 in clomiphene citrate used [2]. Other risk factors are Tubo-ovarian pathologies, endometriosis and past tubal procedures [3]. The fallopian tube are the most commonest site [4].

Conclusion

Clomiphene citrate impair fallopian tube peristalsis due to its effects on local tubal estrogen receptors [5]. Trans-vaginal ultrasound has better diagnostic rate than trans-abdominal ultrasound [6]. Heterotopic pregnancy must always be excluded in patients who had assisted reproduction or history of endometriosis or previous tubal pathology.

Bibliography

1. Honarbakhsh A., *et al*. "Heterotopic pregnancy following ovulation induction by Clomiphene and a healthy live birth: A case report". *Journal of Medical Case Reports* 2 (2008): 390.

2. Glassner MJ., *et al*. "Ovulation induction with clomiphene and the rise in heterotopic pregnancies: A report of two cases". *Journal of Reproductive Medicine* 35.2 (1990): 175-178.

3. Mj G and RR. "Heterotopic pregnancy in natural conception". *Journal of Human Reproductive Sciences* 1.1 (2008): 37-38.

4. Soriano D., *et al*. "Diagnosis and treatment of heterotopic pregnancy compared with ectopic pregnancy". *Journal of the American Association of Gynecologic Laparoscopists* 9 (2002): 352-358.

5. "Ectopic Pregnancy, text book of -Williams Obstetrics". 21st edition. Multifetal Ectopic Pregnancy in Chapter 34: 888-889.

6. Cacciatore B., *et al*. "Comparison of abdominal and vaginal sonography in suspected ectopic pregnancy". *Obstetrics and Gynecology* 73 (1989): 770-774.

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