



## Heterotopic Pregnancy - An Association with Maternal Morbidity

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### Abstract

The natural incidence of a tubal pregnancy accompanied by a coexisting uterine gestation is approximately 1 per 30,000 pregnancies. Because of ART, however, its incidence has increased to 1 in 7000 overall, and following ovulation induction, it may be as high as 0.5 to 1 percent (1). The case describes a 30 year old woman with heterotopic pregnancy who underwent emergency laparotomy for rupture ectopic. Her intra uterine pregnancy was unaffected after laparotomy and progressed satisfactorily. This case highlights the fact that as clinicians, we should be aware of the possibility of a heterotopic pregnancy in any patient presenting with pelvic pain, even when an intrauterine pregnancy has been confirmed, specially after induction of ovulation by Clomiphene citrate or ART. We would also like to emphasise that an early diagnosis is critical to safeguard the intrauterine pregnancy and avoid maternal morbidity and mortality due to the ectopic pregnancy

**Keywords:** NIL

### Introduction

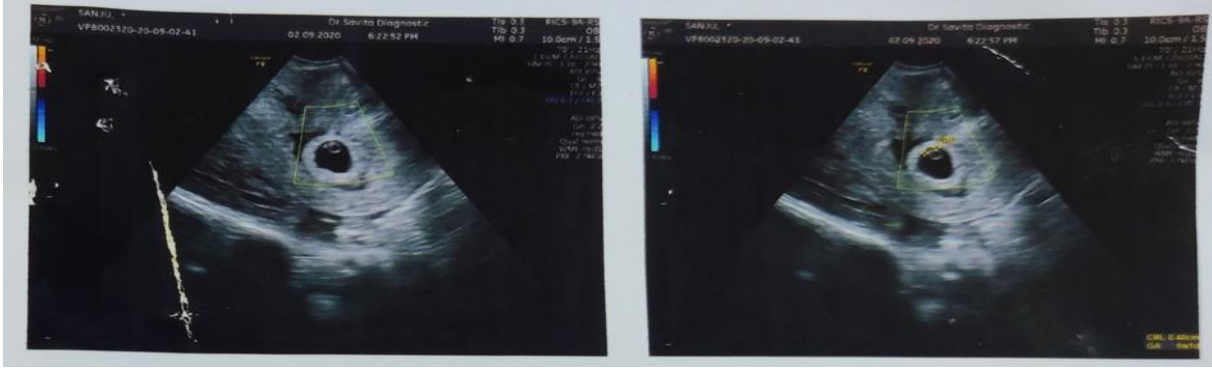
The word heterotopic pregnancy is used in place of the older term combined pregnancy. It defines a uterine pregnancy coexisting with a second pregnancy in an extrauterine location. (2) We report a case of heterotopic pregnancy that was managed at our institute. With a rampant increase in the incidence of assisted reproductive technologies, we are likely to encounter more of such cases in future.

### Case Details

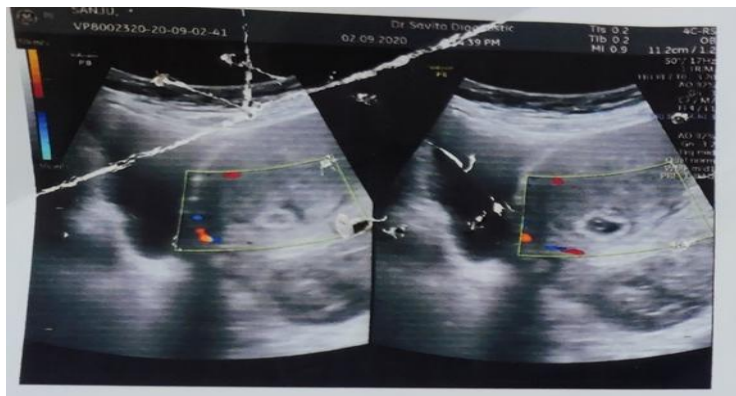
A 30 year old primi gravida with 1½ months amenorrhoea presented with severe colicky pain in the left iliac region and vaginal spotting to the ER. She had taken 1 cycle of ovulation induction for

infertility 2 months back. She was alert and oriented. Her BP was 90/60mmhg and pulse rate was 100bpm. Her extremities were cold and clammy. She was pale. Apart from some mild tenderness in the left lumbar region and right renal angle, her examination was unremarkable. On PV examination, uterus was AVAF 8-10 wks size, left side fullness was felt, right adnexa was free.

On USG – intra uterine G sac of size 3.6×2.2 cm was noted with peri G sac hematoma. A heterotopic area of 2.4×2.5×2.7 cm was present over left adnexa. Mild fluid collection was seen in pelvis with internal echoes. ?rupture ectopic. (Figure 1, 2)



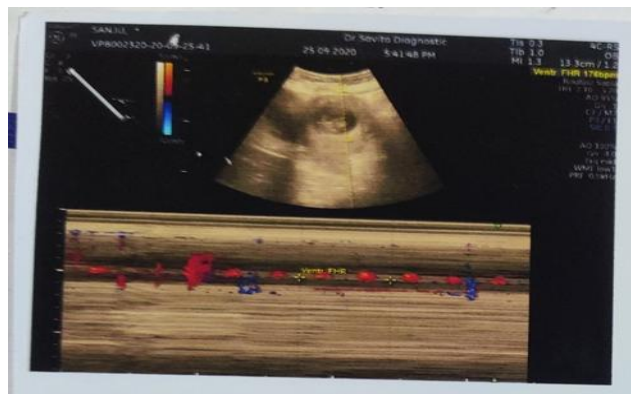
**Figure 1** Usg showing intra uterine G sac



**Figure 2** Usg showing intra uterine G sac with free fluid in abdomen

An emergency laparotomy was performed under general anaesthesia which revealed 800 cc hemoperitoneum of blood and clots with a ruptured left tubal ectopic. Consequently, a left salpingectomy was performed. The histological examination confirmed a ruptured left tubal ectopic pregnancy.

She recovered well postoperatively and was discharged two days after the procedure. 2 weeks after surgery, a live IUP with a CRL equivalent to 9 weeks 4 days gestation was visualised on transabdominal ultrasound (Figure 3)



**Figure 3** 2 weeks later, USG showing normal intra uterine G sac with FHS 176bpm

The pregnancy continued uneventfully till term.

She came to the ER on her due date with POG = 40 wks 2 days .

Decision of induction of labour via dinoprostone vaginal gel was taken. She was induced and later labour was augmented with inj. Oxytocin but still the progress was slow. Eventually patient was shifted for

LSCS due to NPOL (Non progress of labour). The cesarian section went uneventful and she delivered a alive and healthy male child with weight 3kg.

## Discussion

First described by Duverny in 1708, heterotopic pregnancy is very rare in the general population<sup>(3)</sup>. The incidence is approximately 1 in 100 pregnancies if conception is due to assisted reproductive technologies (ART)<sup>(4)</sup>. This occurs primarily because the use of ovulation induction hormones increases the risk of having multiples, which increases the risk for ectopic pregnancies. Newly placed embryos can drift into the fallopian tubes. Also, the hormone concentrations of estrogen and progesterone increases which can slow the movement of the eggs through the fallopian tubes and enhance tubal implantation.<sup>(5)</sup>

In our patient, pregnancy also occurred in association with ovulation induction by clomiphene citrate. Most of the HTP cases are diagnosed late, resulting in significant morbidity and occasional mortality. As no single investigation can predict the presence of a HTP, it should be suspected in any patient, presenting with lower abdominal pain in the early phase of an obvious IUP following fertility treatment.<sup>(6)</sup>

## Conclusions

It is important to assess the presence of a coexisting Ectopic pregnancy in all patients presenting with abdominal or pelvic pain even in the presence of a documented Intra uterine pregnancy. A prompt and immediate action once a heterotopic pregnancy is diagnosed can save a patient's life from this potentially life-threatening condition.

## References

1. Current management of ectopic pregnancy. Mukul LV, Teal SB. s.l. : Obstet Gynecol, 2007, Vol. Clin North Am 34:403.
2. Cunningham, F., Leveno, K., Bloom, S., Spong, C. Y., & Dashe. Williams obstetrics. New York, NY, USA: Mcgraw-hill. : s.n., 24e., J. (2014).
3. DeVoe RW, Pratt JH. 1948. Simultaneous intrauterine and extrauterine pregnancy. American Journal of Obstetrics and Gynecology.
4. Molloy D, Deambrosis W, Keeping D, Hynes J, Harrison K, Hennessey J. 1990. Multiple-sited (heterotopic) pregnancy after in vitro fertilization and gamete intrafallopian transfer. Fertility and Sterility 53:1068–1071.
5. Hill, J. (2003). Assisted reproduction and the multiple pregnancy: increasing the risks for heterotopic pregnancy. Journal of Diagnostic Medical Sonography, 19(4), 258-260.
6. Case report, Heterotopic pregnancy following induction of ovulation. Archibong EI, Etuk SJ. 19: 115–16., Archibong, E. I., & Etuk, S. J. (2002). Case Report; Heterotopic Pregnancy Following Induction of Ovulation. Tropical Journal of Obstetrics and Gynaecology, 19(2), 115-116. : s.n., 2002, Vol. Trop J Obstet Gynaecol