BILATERAL ECTOPIC PREGNANCY FOLLOWING OVULATION INDUCTION

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INTRODUCTION

The incidence of ectopic pregnancy varies between 0.94 % - 3.57% worldwide[1]. The incidence of ectopic pregnancies rises significantly after Assisted Reproductive Technology (ART) and varies from 2-11%[2]. Bilateral Simultaneous tubal pregnancy, the rarest form of ectopic pregnancy has also been described following In Vitro Fertilization and Embryo Transfer (IVF-ET) and Gamete intra fallopian tube transfer (GIFT). Here, we report a case of bilateral simultaneous ectopic pregnancies following ovulation induction only.

CASE REPORT

This 26 yr old primigravida was admitted on 17.4.07 at 1615hrs via Emergency Room (ER) with the Complaints of lower abdominal pain for 1 day. Her LMP was 19.3.07 and she had a positive pregnancy test in urine. She had no urinary or bowel symptoms.

She was married for 4 years with no conception before. She had normal regular cycles of 7/28 days. For the past 1 year she was taking treatment for sub-fertility. In this cycle she had taken 8 injections for ovulation induction.

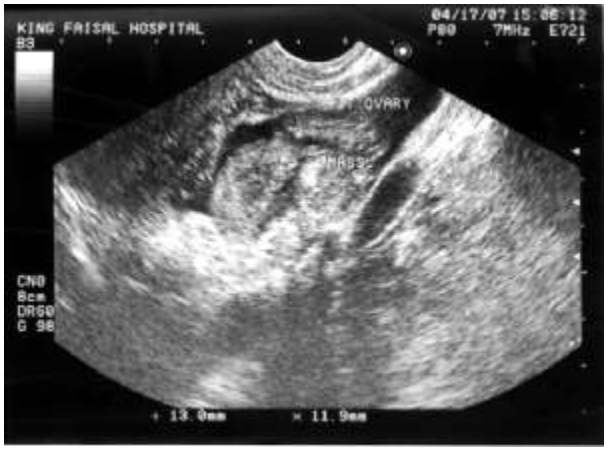
Her past medical & surgical history and family history were non-contributory. She had no known allergies.

On examination, her general condition was stable, Blood Pressure (BP) was 129/74, Pulse (P) = 98/min, Temperature was 36.2° C. Per abdomen, she was mild tender in the left iliac fossa on deep palpation. Per vagina (P/V) it was a normal size, mobile uterus and no adnexal mass was palpable . There was no cervical excitation and mild P/V spotting was present.

Her blood was sent for Complete Blood Count (CBC), blood group and Rhesus factor (Rh factor) Serum Beta Human Chorionic Gonadotrophin (SβHCG), liver and renal functions as per protocol. Urine was also sent for analysis.

A transvaginal scan (TVS) was done which showed an empty uterine cavity, a left adnexal mass of 13x11mm and fluid around the uterus measuring about 48x27mm and 24x11mm (Figure 1).

Figure 1: Transvaginal Scan on 17th April 2007



On 17/4/07 her SβHCG was 667 iu/L. A diagnosis of pregnancy of unknown location (PUL) was made.Meanwhile she was prepared for laparoscopy/laparotomy in case it is an ectopic pregnancy and need emergency intervention. At 2200hrs, she started complaining of Increased abdominal pain and was taken to Operation Room (OR) for a laparoscopy. On the way to OR she collapsed therefore an emergency laparatomy was done for quick access.

On opening the abdomen, about 300 mls of clots were removed from the pelvic cavity by suction. The left tube was bluish and dilated up to 1.5cmn diameter in the isthmic portion and was bleeding from the fimbrial end. The right tube, both ovaries and the uterus were normal. Left salpin- gostomy was done with diathermy knife and some clots/tissues were removed. Haemostasis was secured. The specimen was sent for Histopthology.

No obvious products of conception (POCs) could be found. A drain was left and the abdomen was closed. The patient was stable post operation.

As clear products of conception could not be obtained therefore out of curiosity and to avoid a secondary abdominal pregnancy to grow, a repeat SβHCG was done on 20/4/07. Because of her history of ovulation induction, a heterotopic pregnancy could not be excluded either, therefore she was kept in hospital. On 21/04/2007 a repeat transvaginal scan showed an empty uterine cavity with endometrial thickness of 13.5mm and there was no adnexal mass on either side. There was minimal fluid in the pouch of Douglas .

On 22/4/07, her SβHCG was reported as 2609 iu/L and a repeat TVS also showed no intra or extrauterine pregnancy and an endometrial thickness of 13.1 mm. Anyway, a close watch was kept on her and she remained stable throughout her post operative period and never complained of any pain abdomen.

On 24/4/07.her SβHCG was 4,889 iu/l and the TVS again showed no extra or intrauterine pregnancy. In view of her stable condition and thickening endometrium, it was thought that most likely she is developing an intrauterine pregnancy and she was discharged after good counselling and was advised a repeat SβHCG and TVS every 48hrs till a definite gestational sac is seen.

She visited the out patient on 26/4/07, her SβHCG was 6596 iu/L and the TVS now showed a right adnexal mass of11 x 12mm with no fluid in the pouch of Douglas (Figure 2). The uterine cavity was empty and endometrial thickness was 13mm. Meanwhile the histopathology was reported as few chorionic villi seen. At this point, a diagnosis of another ectopic pregnancy, now on the right side was made and she was readmitted.

Figure 2: Transvaginal Scan on 26th April 2007

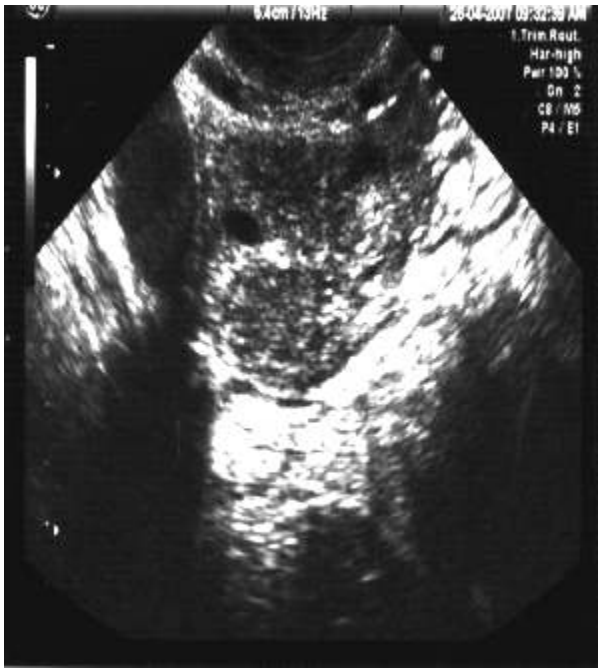
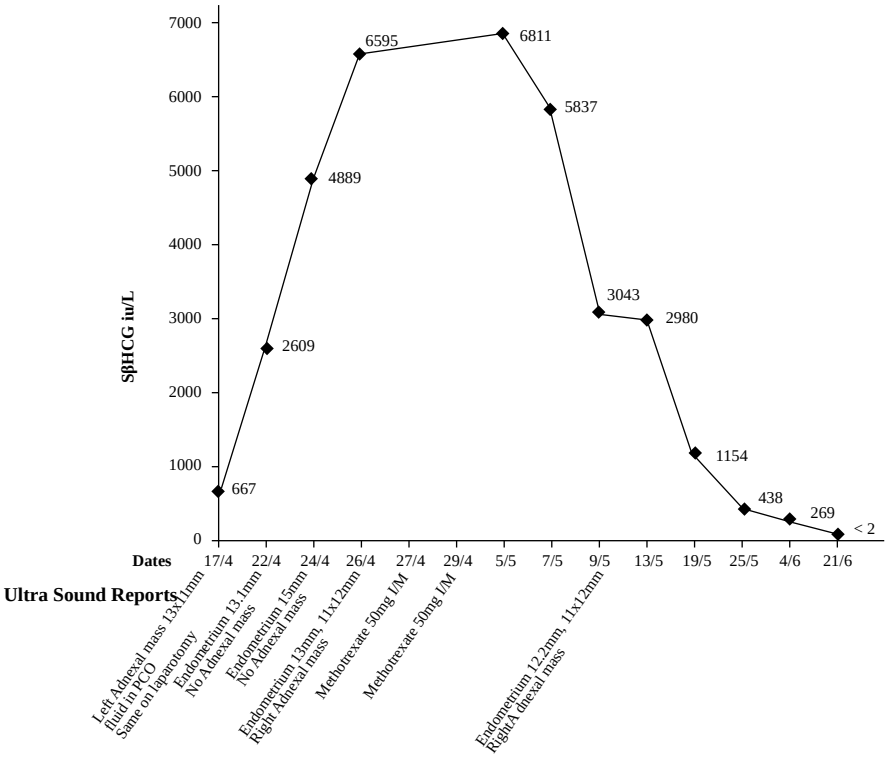


Figure 3: SβHCG levels of the patient



Keeping in mind her subfertility and recent laparotomy the couple was counselled in favour of methotrexate therapy. They accepted the option. Her weight was 52kg. In view of the high levels of SβHCG, she was given2 doses of injection Methotrexate 50 mg I/M on alternate days (27/4/07 and 29/4/07). Her Liver Function Tests (LFT's) remained normal.

Her SβHCG on 05/5/07 was 6,811 iu/L. On 7/5/07 was 5,837 iu/L and she remained stable, but in view of her slow drop of SβHCG, she was kept in and the option of repeat laparotomy and salpingectomy was given which they declined and decided to continue close observation and follow-up.

On 9/5/07, her SβHCG was 3043 iu/L and a TVS showed endometrial thickness of 12.2 and a right adnexal mass 11 x 12mm and she was discharged in a stable condition. On 21/6/07, after a decrease to < 2.00 iu/L in SβHCG level, she was discharged from follow up and advised to come for early ultra sound in her next pregnancy to exclude a repeat ectopic pregnancy (Figure 3).

DISCUSSION

Bilateral tubal pregnancy is an extremely rare form of ectopic pregnancy whose incidence has been estimated to be one in 1,500 ectopic pregnancies following IVF-ET and GIFT procedures[3,4]. In this case ovulation was induced using FSH and HCG and no other procedure was used. In most cases the aetiology is presumed to be simultaneous ovulation with subsequent implantation at sites of fallopian tube pathology[5]. The first documented case of bilateral ectopic pregnancy was in 1918[6].

In this case probably the left tubal ectopic pregnancy started growing earlier than the right one and started causing pain and bleeding because of its location was detected and treated earlier. The right side remained undetected because initially it was too small to be seen or palpated even at laparotomy.

This might be a case of super fecundation with conception occurring in separate acts of coitus.

In this case, had the first ectopic pregnancy on the left side not started to bleed necessitating surgery we might have opted for medical management with Methotraxate. We may not have even seen the right sided ectopic pregnancy to develop and it would have been automatically treated before being diagnosed.

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As the woman was subfertile and she did not agree for a follow-up laparoscopy, therefore the exact location of the 2nd ectopic pregnancy on the right side could not be identified but on ultrasound scan, it looked more like a second tubal ectopic pregnancy.

In this case just our suspicion that even though it was a very early ectopic pregnancy but why we did not get any obvious chorionic tissue and it may have implanted as a secondary abdominal pregnancy led us to do the follow up SβHCG levels and keep her under close observation on the ward. Otherwise she was supposed to be discharged on the 2nd post-operative day.

By the time we got the histopathology report of a few chronic villi seen, her SβHCG was 6596 iu/L and the TVS showed a right adnexal mass, confirming a right sided ectopic pregnancy.

The above case suggests that cases presenting with sub fertility and ectopic pregnancy should be followed very closely especially for the first week post operation with SβHCG and or TVS to exclude double ectopic pregnancies and to reduce the morbidity and mortality of the patient.

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