CASE REPORT

Bilateral Tubal Pregnancy with Intrauterine Pregnancy in a Natural Conception Cycle Along with Liver Cell Failure: Case Report and Review of Literature

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Introduction

Heterotopic pregnancy (HP) is the co-existence of intrauterine and extrauterine gestations. It is a potentially fatal condition that requires a high degree of suspicion for timely diagnosis. Although rare, it is occurring more frequently because of an increase in genital infection and the escalating use of new reproductive technologies in infertility patients. To our knowledge, no case of combined spontaneous HP and liver cell failure has been reported so far. Also, there is only one reported case of bilateral tubal ectopic gestation with intrauterine pregnancy [1].

In natural conception cycles, HP is a rare event occurring in less than 1:30,000 pregnancies [2, 3]. It is even rarer to carry both the extrauterine and intrauterine pregnancy to viability [4]. During the past decade, the rising incidence of HP following induction of ovulation with clomiphene citrate has been reported [5–7]. Also responsible is the increasing use of new assisted reproductive technologies such as in vitro fertilization (IVF) and embryo transfers (ET) in infertile women [8, 9]. It has, however, stabilized at 1:100 pregnancies with these procedures [10]. The rising

incidence of genital tract infection may also be contributory [11].

Case Report

Ms. A, G2P1L1, aged 24 years, previous cesarean section, presented with abdominal pain and vaginal bleeding for 1 day following 6 weeks of amenorrhea. Lower abdominal pain was of dull aching type with associated giddiness. Her previous cycles were regular.

On examination she was thinly built, conscious and cooperative. She was pale but hemodynamically stable. Abdomen was soft with mild tenderness in the lower abdomen. There was free fluid in the abdomen and moderate splenomegaly. Pelvic examination revealed a bulky uterus with bilateral forniceal tenderness, and a positive cervical excitation test. There was no vaginal bleeding. With a clinical diagnosis of ruptured ectopic pregnancy an ultrasound scan was done which showed an intrauterine gestation with cardiac activity, corresponding to 6 weeks and 3 days of gestation. There was free fluid in the pelvis and with a diagnosis of heterotrophic pregnancy-ruptured tubal gestation she was taken up for laparotomy.

Per-operatively there was hemoperitoneum of 1,700 ml. Uterus was 6 weeks gestation size. She had a ruptured right tubal pregnancy. She also had a left fimbrial ectopic gestation. The corpus luteal cyst was in the left ovary. Right ovary was normal. Right salpingectomy and left partial fimbriectomy was performed.

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Post-operatively she was investigated for cause for splenomegaly and diagnosed to have chronic liver disease with portal hypertension. She developed wound dehiscence with 2 cm of rectus sheath gaping on the ninth post-operative day and resuturing for burst abdomen was done (Figs. 1, 2, 3).

At 10 weeks of gestation an ultrasound scan showed intrauterine fetal demise and suction evacuation was done for the same.

Histopathological examination of the material forwarded at surgery showed tubal and fimbrial gestations and that sent following suction evacuation showed products of conception.

Discussion

HP is becoming more frequent because of increased genital infection and especially the wider use of assisted reproductive techniques [11]. This patient presented with neither a genital tract infection nor had any assisted reproductive technique. As such, we infer that she had triple ovulation and fertilization with one embryo implanting in the normal endometrium of the corpus uteri and the second implanting in the right tube and the other in the left fimbria. She being 24 years of age, not having undergone ovulation induction, the factor causing this multiovulation in a natural cycle remains unexplained. Whether the chronic liver failure contributed in any way is only speculative. A search of literature linking liver failure with ectopic pregnancy or multifollicular development failed to yield any relevant articles.

In this case, the risk factor for ectopic gestation is prior surgery (cesarean section) [12]. Though STDs cause both liver failure (Hepatitis B virus) and ectopic pregnancy (chlamydia, gonorrhea) [12], this patient tested negative for

Fig. 1 Right fallopian tube with chorionic villi. Hematoxylin and eosin. $\times 50$

Fig. 2 Left fallopian tube with chorionic villi. Hematoxylin and eosin. $\times 100$

Fig. 3 Products of conception. Curetting from endometrial cavity. Hematoxylin and eosin. $\times 50$

HBsAg and HCV. She also had thrombocytopenia which was attributed to hypersplenism.

Cases of HP are easily suspected and diagnosed in cases where pregnancy is the result of assisted reproductive techniques. In natural conception, the index of suspicion is low and thus the presence of an intrauterine gestation may lead to a delay in diagnosis of an ectopic gestation. Also, once the diagnosis of HP has been made a systematic search of possible sites of ectopic gestation should be carried out during surgery.

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