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Case Report

Cervical heterotopic pregnancy: a rare occurrence

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ABSTRACT

Ectopic pregnancy is one of the leading causes of first-trimester gestation-related mortality. Cervical ectopic is a rare entity (less than 1% of all ectopic cases), heterotopic cervical pregnancy is a much rarer occurrence. Cervical pregnancy is highly dangerous and demands immediate termination of pregnancy as the chances of haemorrhage are too high, leading to maternal mortality. Although there are various approaches to terminate cervical pregnancy, it is challenging when accompanied by a live intrauterine pregnancy. Ultrasound-guided transcervical aspiration of the products of conception is the most suitable option in these cases. Here we describe a case of cervical heterotopic pregnancy, which we successfully and safely terminated using the above approach.

Keywords: Ectopic pregnancy, Heterotopic pregnancy, Cervical ectopic pregnancy, Products of conception

INTRODUCTION

The simultaneous occurrence of one or more intrauterine pregnancy with an ectopic pregnancy is called heterotopic pregnancy. These are very rarely seen with an incidence of 1 in 30,000 spontaneous pregnancies. The incidence of heterotopic pregnancies has risen with the increase in the use of assisted reproduction techniques such as in vitro fertilization-embryo transfer (IVF-ET). It ranges from 1% to 3% of clinical pregnancies that occur as a result of the procedure.[1] Cervical ectopic pregnancy is an infrequent condition, representing less than 0.1% of all ectopic pregnancies.[2] Here authors report a case with two rarities-a heterotopic pregnancy with cervical ectopic.

CASE REPORT

A 44-year-old woman, nulligravida, married for 12 years, came from Bangladesh to our hospital for fertility treatment. She was treated with multiple cycles of ovulation induction and diagnostic hysterolaparoscopy at her local place, but were futile. Hence, she was referred to our hospital. In our hospital, we worked her up with a 2nd-day antral follicle scan (AFC), which revealed one follicle of size 4mm in the left ovary and no follicles in the right ovary. Her hormone works up showed low antimullerian hormone (AMH) (0.2 ng/ml), normal FSH, LH, prolactin and TSH. Hysteroscopy with endometrial biopsy was done to rule out genital tuberculosis. She was recently diagnosed with diabetes and hypertension for which she was started on tablet metformin 500 mg and tablet labetalol 100 mg twice a day. The husband's semen analysis showed teratozoospermia. In view of prolonged primary infertility despite multiple ovulation induction cycles, elderly age and low AMH, invitro fertilization with donor oocyte was the treatment of choice. However, her first cycle failed with a negative β-HCG.

One month of contraceptive pills was given to her, and in the subsequent month, endometrial preparation was started again. A long agonist protocol of inj buserelin 0.5 ml subcutaneous was given from day 2 of menses to day 17, followed by 6 days of injection progesterone 100 mg daily; intermittent scans were done every 3 days once embryos were transferred (3AA and 2AB) with endometrium 8.9 mm.[2] This cycle was successful with β-HCG 8400 IU and an early scan confirming 5 weeks 5 days, dichorionic diamniotic twins. At 6 weeks and 5 days, she had spotting per-vaginum, where the vaginal scan revealed one intrauterine pregnancy and another cervical pregnancy,

both with cardiac activity (Figure 1 and 2). We could not inject methotrexate as we wanted to continue the intrauterine pregnancy. Hence, under aseptic condition and sedation, ultrasound guided transcervical puncture of the gestational sac was done with the ovum pick-up needle. The products and the amniotic fluid were collected and sent for histopathology, which confirmed the presence of products of conception.

The patient was followed up till 12 weeks of gestation with consecutive scans which showed a single intrauterine pregnancy with appropriate development and no significant abnormalities. Her cervical os was closed in all the scans with a satisfactory cervical length of 3.2 cm. The patient wanted to return to Bangladesh for further antenatal follow-ups and delivery. On further enquiry, we came to know that the patient had preterm premature rupture of membranes (PPROM) with severe oligohydramnios (AFI-2.6 cm) at 28 weeks. She was posted for elective LSCS due to poor bishops score, where she delivered a 600-gram male baby. Unfortunately, the baby succumbed in less than 10 minutes after birth in NICU.

Figure 1: Ultrasound of cervical pregnancy.

Figure 2: Ultrasound of intrauterine pregnancy.

DISCUSSION

Before the advancement of ultrasound in obstetrics, cervical pregnancies had to be diagnosed by histopathology reports. The patient would have bled excessively due to trophoblastic arteries eroding the cervix, necessitating an emergency hysterectomy. Advancement of ultrasound in obstetrics has led to early diagnosis of ectopic pregnancy and, hence, a more fertility-conservative approach.

Like any ectopic pregnancy, cervical pregnancy also cannot grow normally and successfully till term. To prevent life-threatening complications, cervical ectopic pregnancy has to be terminated as immediately as possible. In the past, surgical excision of trophoblast was the preferred method for instant excision of trophoblast tissue. Curettage was also a fertility-preserving method used in the past but with a high haemorrhage risk leading to further emergency hysterectomy. Currently, primary hysterectomy is not a preferred method, unless the patient presents with intractable haemorrhage. Cervical ectopic accidentally diagnosed or diagnosed due to spotting complained by the patient in the second or third trimester are linked with significant bleeding following placental detachment.[3]

Procedures like ultrasound-guided potassium chloride or methotrexate injections, hypogastric iliac artery ligation and arterial embolization, cervical cerclage, and hysteroscopic resection have been described in the management of cervical ectopic pregnancy.[4] According to published literature, in 81% of cases, transvaginal therapy did not produce any complications, in 5% of cases bleeding was seen requiring additional interventions, and only in 1 % of cases it was necessary for hysterectomy.[5]

Hence, in our case, we performed ultrasound-guided aspiration of the cervical gestation, which was successful with no potential threat to the viable intrauterine pregnancy. We did not use methotrexate because of its systemic toxicity towards intrauterine gestation. Uterine artery embolization was also not done due to the radiation exposure risk of the patient during the procedure.

The unfortunate outcome of PPROM at 28 weeks was probably due to uterine infection.

CONCLUSION

Cervical pregnancy as part of heterotopic pregnancy is a rare entity. When accompanied by a live intrauterine pregnancy, ultrasound guided transcervical aspiration of products of conception is the safer option when compared to dilatation and curettage and trophoblastic excision.

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