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CASE REPORT

Heterotopic cervical pregnancy: a case report

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Cervical pregnancy is a life-threatening condition occurring in 1 : 1000 to 1 : 18000 pregnancies (1). Simultaneous intrauterine and cervical pregnancy occurs once every 30 000 pregnancies (2). Cervical pregnancy can cause severe hemorrhage that might necessitate a hysterectomy.

We present a case of a spontaneously occurring heterotopic intrauterine and cervical pregnancy. An early diagnosis permitted successful conservative treatment.

Case report

A 29-year-old woman, gravida 4, para 1, was referred to our hospital at 6 weeks of gestation for a sonographic suspect of a heterotopic cervical and intrauterine pregnancy.

Five years previously, she had had a miscarriage. One year later she was submitted to salpingectomy for a left tubal pregnancy. In 1996 she had a term pregnancy and a healthy boy was delivered at elective cesarean section performed for breech presentation.

The patient was asymptomatic; pelvic examination revealed normal adnexa, a slightly enlarged uterus and a bulky and hyperemic cervix with a closed os.

Transvaginal ultrasound (US) revealed the presence of an intrauterine and a cervical gestational sac 20 and 18 mm in diameter, respectively (Fig. 1). A yolk sac and embryonic heart activity were present in both. The cervical sac was located in the anterior wall of the cervix; Color Doppler was not suggestive of cervical vessel involvement. The initial β-subunit human chorionic gonadotropin (β-hCG) level was 47813 mIU/ml and it rose to 79620 mIU/ml 2 days later.

The management options were discussed with the patient who refused medical treatment and, well informed of the risks and of the possibility of radical treatment, accepted an attempt at selective interruption of the cervical pregnancy.

With the patient under general anesthesia, a Karman cannula (no. 4) was used to perform selective, sonographically guided aspiration of the cervical pregnancy. Ultrasound confirmed a viable intrauterine pregnancy at the end of the procedure.

However, 1 day later the patient presented with vaginal bleeding and abdominal cramps. Ultrasound revealed the presence of clots in the uterine cavity, no fetal heart activity and residual trophoblast in the cervical area. A careful curettage of the uterus and cervical canal was performed. The postoperative period was uneventful and bleeding was controlled by oxytocics. At US, residual echoes in the cervical wall disappeared within 6 days and the patient was discharged. β-hCG titration became negative 35 days after the procedure.

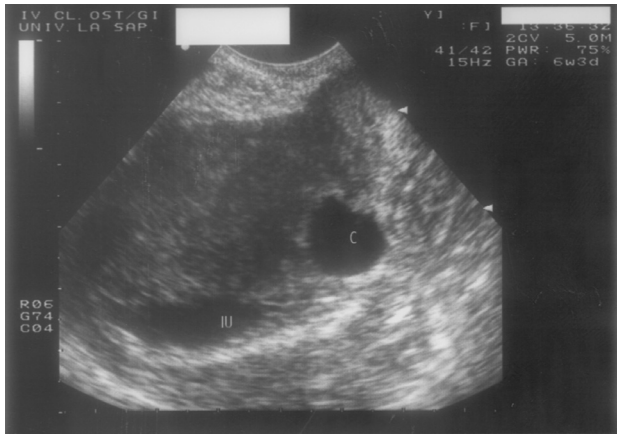

Fig. 1. Transvaginal ultrasound showing intrauterine and heterotopic cervical pregnancy (Aloka SSD 2000 TV Mhz 5).

Conclusions

Cervical pregnancy is a rare condition. Possible causes include uterine anatomical anomalies, uterine fibroids, intrauterine device use, endometrial atrophy, abortion, cesarean section, uterine curettage and chronic endometritis. Conservative treatment is often complicated by severe hemorrhage requiring blood transfusions and even a hysterectomy. An early diagnosis could mitigate such complications and allow preservation of the patient's reproductive potential. Combined intrauterine and cervical pregnancy is exceptional, nine cases have been reported in the English literature, and it mainly occurs after *in vitro* fertilization-embryo transfer. In our patient, this condition occurred spontaneously.

Suction of the cervical pregnancy and uterine curettage and local or systemic methotrexate have been employed for the termination of both pregnancies. In five cases, an attempt to preserve the intrauterine pregnancy was made. In three of them the cervical pregnancy was successfully terminated using potassium chloride injection. The intrauterine pregnancy proceeded until term (3–5). As for the other two cases, one patient required blood transfusions and had a miscarriage at 13 weeks of pregnancy after selective curettage and cervical cerclage (6), and the other required blood transfusions and hysterectomy after selective reduction with KCL and bilateral uterine artery embolization at 8 weeks of pregnancy (7).

In our case, an early diagnosis allowed successful conservative treatment. In fact, despite the termination of the intrauterine pregnancy, no further invasive procedures, medical therapies or blood transfusions were needed, and the patient's fertility was preserved.

References

1. Yankowitz J, Leak J, Huggins G, Gazaway P, Gates E. Cervical pregnancy case reports and a current literature review. Obstet Gynecol Surv 1994; 49: 49–54.
2. Beck P, Silverman M, Oehninger S, Muasher SJ, Acosta A, Rosenwak Z. Survival of the corneal pregnancy

in heterotopic gestation after in vitro fertilisation and embryo-transfer. Fertil Steril 1990; 53: 732.
3. Moenteagudo A, Tarricone N, Timor-Tritsch I, Lerner J. Successful transvaginal ultrasound guided puncture and injection of a cervical pregnancy in a patient with simultaneous intrauterine pregnancy and a history of a previous cervical pregnancy. Ultrasound Obstet Gynecol 1996; 8: 381–6.
4. Carreno CA, King M, Johnson MP, Yaron Y, Diamond NIP et al. Treatment of heterotopic cervical and intrauterine pregnancy. Fetal Diagn Ther 2000; 15: 1–3.
5. Chen D, Kligman I, Rosenwaks Z. Heterotopic cervical pregnancy successfully treated with transvaginal ultrasound-guided aspiration and cervical-stay sutures. Fertil Steril 2001; 75: 1030–3.
6. Davies DW, Masson GM, McNeal AD, Gadd SC. Simultaneous intrauterine and cervical pregnancies after in vitro fertilization and embryo transfer in a patient with a history of a previous cervical pregnancy: a case report. Br J Obstet Gynaecol 1990; 97: 634–7.
7. Honey L, Leader A, Claman P. Uterine artery embolization: a successful treatment to control bleeding cervical pregnancy with simultaneous intrauterine gestation. Hum Reprod 1999; 1: 5535.

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