CASE REPORT

Cervical ectopic twin pregnancy: diagnosis and conservative treatment

Maria Angela Pascual1-3, Jorge Ruiz1, Francisco Tresserra2, Carol Sanuy1, Pedro J.Grases2, Rosa Tur1 and Pedro N.Barri1

1Department of Obstetrics and Gynaecology and 2Department of Pathology, Institut Universitari Dexeus, Paseo de la Bonanova 89–91, 08017 Barcelona, Spain
3To whom correspondence should be addressed. E-mail: marpas@iudexeus.uab.es

A case of cervical ectopic twin pregnancy with cardiac activity in both embryos is presented. It was diagnosed in the eighth week of gestation by ultrasonography, and treated conservatively with intra-amniotic administration of methotrexate under ultrasonographic guidance followed by curettage. This procedure allows subsequent gestations.

Key words: cervical twin pregnancy/methotrexate/reproduction/ultrasound

Introduction

Cervical pregnancy represents a rare and dangerous type of ectopic pregnancy, ranging in incidence between 1:1000 and 1:18 000 pregnancies (Yankowitz et al., 1990). Ectopic twin pregnancy is quite uncommon in the cervix; only one case of twin pregnancy has been reported in the cervico-isthmic region (Iloabachie et al., 1993). The diagnosis is usually done at the end of the first trimester of gestation, and in the past, treatment consisted of hysterectomy, allowing no possibility of future gestations. Nowadays, ultrasonographic diagnosis of ectopic pregnancy allows conservative treatment such as curettage followed by cervical tamponade, cervical cerclage after curettage or cervical amputation with hipogastric ligation (Parente et al., 1983). Local or systemic treatment with methotrexate (Farabow et al., 1983) seems to be an appropriate choice to preserve fertility (Oyer et al., 1988; Stovall et al., 1988; Kaplan et al., 1989; Kung and Chang, 1999); in some cases additional procedures are needed such as curettage (Timor-Tritsch et al., 1994), hipogastric embolization (Frates et al., 1994; Cosin et al., 1997) or bilateral uterine artery ligation.

This paper describes a case of cervical ectopic twin pregnancy diagnosed ultrasonographically at 8 weeks gestation, treated conservatively with local administration of methotrexate under ultrasonographic guidance, followed by curettage.

Case report

A 39 year old female who had had two abortions became pregnant after one cycle of IVF. The patient weighed 53 kg. Previously she had been unsuccessfully submitted to six cycles of artificial conjugal insemination. The hysteroscopy performed for infertility studies revealed a hypotrophy of the external canal. According to our institution’s protocol, the IVF cycle was performed following a long protocol, retrieving 12 oocytes. Four embryos were obtained by intracytoplasmatic sperm injection (ICSI). Three embryos were replaced without ultrasonographic guidance with a Wazel catheter. The remaining embryo was cryopreserved. Four weeks later, the patient was seen with vaginal bleeding. Ultrasonography showed an empty uterine cavity and a bizygotic twin gestation in the cervix (Figure 1) and with cardiac activity in both embryos (Figure 2). Colour Doppler study showed peritrophoblastic flow. The ß-human chorionic gonadotrophin (ßHCG) concentration was 83.465 IU/l.

Both gestational sacs were punctured under ultrasonographic control and their contents aspirated for cytological study. No haemorrhage, complications or other adverse effects were seen after the procedure. The patient was discharged in good condition the following day and monitoring performed afterwards showed a decrease in the ßHCG concentration (Figure 3). Ultrasonographic follow-up only revealed heterogeneity of the sacs’ contents and peripheral vascularization (Figure 4).

At 36 days after a fibrinohaematomat material with necrotic decidua was vaginally discharged. After 40 days, vaginal bleeding required cervical and endometrial curettage as well as blood transfusion. Histological studies showed deciduo-
Cervical ectopic twin pregnancy

Figure 1. Transvaginal ultrasonography showing a longitudinal section of the uterus with empty cavity and two gestational sacs in the cervix.

Figure 2. Doppler study shows cardiac activity in both embryos.

Discussion

Transvaginal ultrasound diagnosis of cervical ectopic pregnancy requires the presence of a gestational sac in a widened cervical canal and the exclusion of a gestational sac in the uterine cavity. It should not be confused with the product of conception in transit within the cervical canal. Hence the diagnosis of ectopic pregnancy should be accompanied by colour Doppler study to identify the peritrophoblastic flow (Jurkovic et al., 1996). The case presented not only showed embryonic cardiac activity but also the characteristic peritrophoblastic flow with high peak systolic velocity and low impedance to flow. Ectopic twin pregnancies have rarely been reported in the ovary (Ohba et al., 1992), broad ligament (Deshpande et al., 1999), Fallopian tube (Lema, 1990; Ansari et al., 2000) and in the cervico–isthmic region (Iloabachie et al., 1993), most of them associated with endometriosis or ovular rests. Hysteroscopy 8 months later displayed a right lateral side synechia.

The patient underwent a new IVF cycle with long protocol obtaining six oocytes, all of them fertilized by conventional IVF. Three embryos were transferred with ultrasound guidance according to conventional techniques (Coroleu et al., 2000) and the three remaining were cryopreserved. Five weeks later one pregnancy was confirmed by transvaginal ultrasound with an 11 mm gestational sac containing one embryo with cardiac activity and a normal cervix uterus. Amniocentesis was performed and showed a fetus with karyotype 46 XY. At 42 weeks a healthy live male was vaginally delivered.
et al. Carreno, C.A., King, M., Johnson, M.P.


Acknowledgements
The authors are grateful to the Ca`tedra d’Investigació en Obstetricia i Ginecologia (Universitat Autònoma de Barcelona) for its support.

References
