Case Report

Received: November 11, 1994

Accepted after revision: March 14, 1995

Gynecol Obstet Invest 1995;40:213-214

A Case of Cervical Pregnancy Treated with Methotrexate

L.	Lütfi	Çamli
H.	Hüseyin	Şenyurt
H.	Hüseyin	Kahramani
B.	Bülent	Gökmen

Ankara State Hospital, Obstetrics and Gynecology Clinic, Ankara, Turkey

Key Words

Cervical pregnancy
Chemotherapy

Abstract

A case of cervical pregnancy was treated successfully with methotrexate and folinic acid. Serial β -HCG and sonography were used to diagnose the pregnancy and to monitor the therapy. Treatment was successful and the patient's reproductive capability was preserved.

Lütfi Çamli, 8. Cad. Yesiltepe Blk. 2. Blok 71, Emek Ankara (Turkey)

Introduction

Cervical pregnancy is the name given to pregnancies that implant distal to the internal ostium of the uterus. This term was first used by Rokitansky in 1860. The real incidence of cervical pregnancy is not known but it is estimated to vary between 1/2,500 and 1/18,000. In its etiology increased ovum transport velocity, delayed maturation of the ovum and endometrial defects play a role.

Cervical pregnancy is a rare entity, but it can cause serious bleeding, shock and death. The morbidity of cervical pregnancy is still high, but its mortality has been reduced from 40 to 0% [1]. David et al. [2] found 11 viable cervical pregnancies in the literature, but they assert those were cervicoisthmic pregnancies in fact. Although there are some conservative approaches to cervical pregnancies to conserve fertility, hysterectomies are still performed due to massive hemorrhages.

Hypogastric artery ligation, cervical cerclage, ligation of the descending branch of the uterine artery and cervical tamponage are some of the conservative methods used to treat cervical pregnancies. Farabow et al. [3] first used this regimen to treat a cervical pregnancy, but in this first case the cervical mass persisted and a hysterectomy was performed.

Later Oyer et al. [4] were successful at preserving the fertility of a cervical pregnancy patient with this therapy.

It is generally believed that success at the medical therapy of cervical pregnancy is directly related to gestational age. According to several authors chemotherapy in the presence of high β -HCG titers, sonographic visualization of embryonal parts and fetal cardiac activity is thought to be useless due to high complication rates [4]. In such cases intra-amniotic injection of chemotherapeutics is thought to be more effective, and fewer side effects are reported [1].

In our clinic we diagnosed a case of cervical pregnancy with serious complications and treated the patient successfully with methotrexate and folinic acid.

Case Report

Our patient was a 24-year-old woman, gravida 1 para 0, who did not know her last menstrual period exactly but said that she had been not menstruating for the last 2 months. Our patient's presenting complaint was vaginal bleeding for the last 24 h. A pregnancy test was performed and found to be positive.

An immediate physical examination was performed and all vital signs were found to be normal, the abdomen was soft and nontender.

© 1995 S.KargerAG, Basel

0378-7346/95/0403-0213

\$8.00/0

Fig. 1. Longitudinal sonogram revealing expansion of the lower uterine segment with a sharply circumscribed gestational sac located in the cervical region. CP = Cervical pregnancy.

Fig. 2. Longitudinal sonogram revealing shrinking gestational sac 7 days after the completion of chemotherapy. C = Cervical canal.

Upon pelvic examination the external cervical ostium of the uterus was found to be dilated to 5 mm, cyanotic and edematous. There was a slight cervical bleeding, but there was no sign of a tissue expelled. On bimanual examination the uterus was soft and of normal dimensions; the adnexa were normal. The cervix was soft and dilated to a barrel shape. A sonographic examination was performed and the uterus was found to be of normal dimensions, endometrial echo was distinct, the internal cervical ostium was closed and the dilated cer-vic presented as an hourglass. The gestational sac was below the internal ostium of the cervix, but no embryonal echo was seen (fig. 1). β -HCG level was 673 mIU/ml in the serum. A diagnosis of cervical pregnancy was made according to the criterion of Vas et al. [5] of cervical pregnancy and chemotherapy with methotrexate and folinic acid was decided on in order to preserve fertility. On days 1, 3, 5, and 7, 1 mg/kg methotrexate and on days 2, 4, 6, and 8, 0.1 mg/kg folinic acid were administered. Prior to chemotherapy CBC, liver function tests, BUN and creatinin levels were measured and found to be normal, and these tests were repeated before every methotrexate dose. During and after chemotherapy serial β -HCG measurements and sonographic evaluations

were made. β -HCG levels were 437 mIU/ml on day 4, 170 mIU/ml on day 6, 54 mIU/ml on day 8, and 25 mIU/ml on day 15.

There was significant diminution in the dimensions of the gestational sac during chemotherapy (fig. 2). Fifteen days after the completion of chemotherapy β -HCG level was 11 mIU/ml and 15 days after that it was below measurable limits.

During the follow-up period there was no vaginal bleeding and passage of gestational matter, for this reason we do not have a histo-logic diagnosis of cervical pregnancy. No side effects were seen due to chemotherapy and the patient menstruated 6 weeks after the completion of chemotherapy.

Seven months after chemotherapy our patient was pregnant again, but during follow-up this pregnancy was found to be anem-bryonic and a dilation and curettage were performed at 8 weeks.

Conclusion

In our case β -HCG was not too high and embryonal parts were not seen in ultrasonography and we think that is why chemotherapy was successful. We did not observe any serious side effects due to chemotherapy and our patient was pregnant 7 months later. But this pregnancy was anem-bryonic. Walden and Bagshave [6] reported the persistence of methotrexate in animal tissues up to 8 months after the completion of chemotherapy. We do not know whether this anembryonic pregnancy is due to this effect or not.

References 1 Kaplan BR, Brandt T, Javahari G, Scommegna

A: Nonsurgical treatment of a viable cervical pregnancy with intraamniotic methotrexate. *FertilSteril* 1990;53:941.

David MP, Bergman A, Delighdis L: Cervi-coisthmic pregnancy carried to term. *Obstet Gynecol* 1980;56:247.

Farabow WS, Fulton JW, Fletcher V: Cervical pregnancy treated with methotrexate. *NC Med J* 1983;91:44.

Oyer R, Tarakjian D, Lev-Toaff A: Treatment of cervical pregnancy with methotrexate. *Obstet Gynecol* 1988;71:469.

Vas W, Suresh PL, Tang-Barton P: Ultrasono-graphic differentiation of cervical abortion from cervical pregnancy. *J Clin Ultrasound* 1984;12:553.

Walden PA, Bagshave KIA: Reproductive performance of woman successfully treated for gestational trophoblastic tumors. *Am Obstet Gynecol* 1976; 125:1108.

214 Çamlı/Senyurt/Kahramani/Gökmen A Case of Cervical Pregnancy Treated with Methotrexate