Successful treatment of cervical and simultaneous cervico-isthmic pregnancy with methotrexate

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Summary

Objective: To describe the monitoring of a case of cervical and simultaneous cervico-isthmic pregnancy.

Setting: University of Bari (Italy), Department of Obstetrics and Gynecology.

Patient: A 30-year-old white woman, nulliparous, at 8 weeks of amenorrhoea.

Intervention: Methotrexate and folinic acid administered systemically.

Main Outcome Measure: Treatment success was defined as elimination of the cervical and cervico-isthmic pregnancy, with non-invasive treatment and preservation of the uterus and normal ovarian activity restored.

Result: Methotrexate and folinic acid were administered, elimination of a twin pregnancy with declining serum beta-hCG levels and with ultrasound was observed. The patient had only occasional dark vaginal bleeding and temporary movement of the transaminase.

Conclusion: This case report shows that methotrexate is a valid, conservative and non-invasive treatment for a patient affected by cervical pregnancy who wishes to keep fertility.

Key words: Ectopic pregnancy; Cervical pregnancy; Methotrexate.

Introduction

The frequency of ectopic pregnancy in general, and cervical pregnancy (CP) in particular, has been rising significantly during the last few decades.

The incidence of spontaneous CP has been reported to range from 1:1,000 to 1:95,000 pregnancies while, that of spontaneous combined intrauterine and ectopic (heterotopic) pregnancy is 1:30,000 deliveries [1].

These data increase after assisted reproductive techniques and there are many discordances among authors, perhaps due to the variability of diagnostic criteria and to the rarity of cases.

Treatment options for this dangerous condition are different; the main goal for these young patients who wish to preserve fertility is to adopt a conservative, and where possible, non-invasive treatment modality.

Case Report

A 30-year-old white, nulliparous woman was referred to our Unit with the diagnosis of twin ectopic pregnancy, after a routine ultrasound evaluation at the 8th week of gestation. She had reported vaginal bleeding, but the pelvic examination was negative. Uterine volume was according to time of gestation and the cervix was dilated to 1 cm.

Ultrasonography revealed a gestational sac (1.6 cm. in diameter) in the cervical side, without heart activity. In the lower part of the corpus uteri a second gestational sac without embryonic echoes was seen [Figure 1]. Serum beta-hCG level was 172,000 mIU/ml.

The patient was treated with methotrexate (60 mg IM days 1-3-5-7) and folinic acid (6 mg IM days 2-4-6-8) for two cycles with an interval of 28 days.

During the treatment the serum beta-hCG levels progressively decreased (Table 1) and both gestational sacs disappeared at ultrasound.

The patient had only occasional dark vaginal bleeding and temporary movement of the transaminase.

Discussion

The incidence of cervical pregnancy is not known varying from one in 1,000 to one in 95,000 pregnancies [1].

When this dangerous condition is associated with cervico-isthmic pregnancy the data are very rare [2].

If the patient consults a gynaecologist a diagnosis can be made before active bleeding occurs thanks to ultrasonography and pregnancy tests.

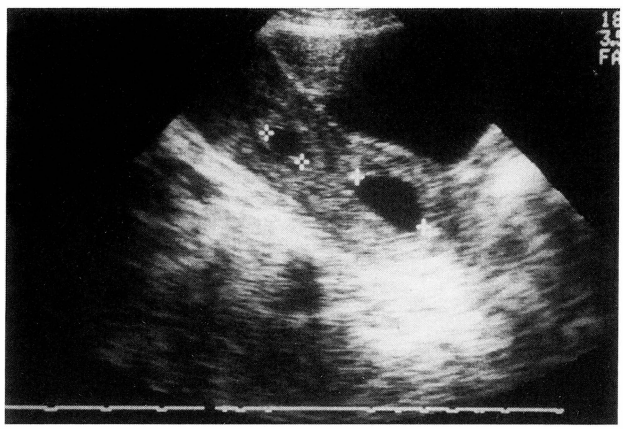

Figure 1.

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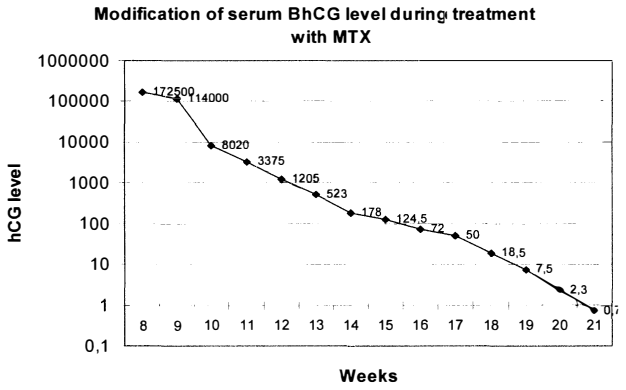

Table 1.

It has been reported that beta-hCG levels above a high range are very suggestive of ectopic pregnancy [3].

Several treatment options have been recommended, ranging from simple digital evacuation to ligation of the hypogastric arteries and hysterectomy.

Other reported methods include dilatation and curettage with or without packing of the cervical canal, depending on the amount of bleeding, and ligation of the cervical branch of the uterine arteries, with resection and reconstruction of the cervix.

In case of active bleeding, adeguate hemostasis can be obtained by two procedures – ligation of the cervical branch of the uterine artery and application of intracervical pressure to the bleeding site using the balloon of an inflatable urethral catheter. Both these methods, along with proper timing, help in preventing hemorrhagic shock and the need for further, more drastic, surgical intervention.

In the last few years surgical treatment has become more conservative, and medical treatment with methotrexate has largely replaced surgical options.

In the literature a case of advanced (10 weeks) cervical pregnancy treated with actinomycin-D and subsequential curettage has been reported [4].

Methotrexate (MTX) was administered, according to several protocols, in a high single dose [5] or in a low dose, systemically or locally, even if the administration of a high dose of MTX did not seem to be more effective than a lower one [6]; it often happens that MTX is unsuccessful and surgical treatment is indispensable.

When treatment with MTX fails angiographic embolization of the anterior division of the hypogastric artery, dilatation and curettage, and minimal rollerball ablation of bleeding cervical vessels have been proposed [7, 8].

The case reported demonstrates that use of MTX is a valid, conservative and non invasive treatment, restores fertility, decreases morbility and mortality intrinsic to traditional surgical procedures, and the patient does not show any particular discomfort.

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