

Cervical pregnancy: Case report and review of the literature

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Abstract: *Cervical pregnancy is one of the rare locations of ectopic pregnancies. Its uterine evacuation predisposes to formidable complications, notably significant hemorrhage which threatens maternal vital prognosis. Treatment with methotrexate (MTX) represents an interesting alternative to surgery. We report the observation of a 26-year-old patient, 3rd stage, 2nd parity, with a scarred united uterus, without notable pathological history, and who presented with a cervical pregnancy diagnosed at 8 weeks of age. amenorrhea. The treatment within our structure involved embolization followed by ultrasound-guided aspiration given the absence of criteria for medical treatment in our patient. The interest of this observation lies in the diagnostic approach and the different stages of therapeutic management.*

Keywords: cervical pregnancy, hemorrhage, aspiration, methotrexate, embolization, surgery

INTRODUCTION

Defined by intracervical implantation of the gestational sac, under the internal cervical os;

It is not an ectopic pregnancy in the strict sense but an intrauterine pregnancy with pathological implantation in the endocervix.

The rarest of locations, cervical pregnancy represents less than 1% of ectopic pregnancies.

Its frequency is poorly known, estimated at 1/20,000 pregnancies.

Its severity is linked to the risk of hemorrhagic complications, which can endanger the patient's life.

Its management poses a dilemma: avoiding the risk of hysterectomy without compromising the patient's vital prognosis linked to the hemorrhage.

Case Study

We report the case of a patient aged 26 years, 3rd procedure, 2nd parity, carrying a unicatricial uterus, without notable pathological history, in particular no consanguinity whose current pregnancy estimated at 8 weeks according to DDR specifies . Consult for minimal metrorrhagia associated with pelvic pain.

The clinical examination finds a patient stable on the HD and respiratory level, Conjunctivas slightly discolored. With the gynecological examination: gynecological a cervix with a macroscopically normal appearance, gravid, minimal bleeding from the endocervix without cervicovaginal lesion, on the TV a uterus of normal size, without lateral uterine mass or pain on uterine mobilization.

The endovaginal pelvic ultrasound revealed a normal sized uterus, interface line followed to the bottom, with the presence of an anechoic isthmic image surrounded by a hyperechoic halo in favor of a gestational sac with an embryo visible with Activity positive heart and cranio-caudal length of 17 mm (greater than 10 mm) with a thin safety wall of 2 mm. The 2 annexes seen without particularities, no effusion.

figure 1 : ultrasound image showing cervical pregnancy with CLL corresponding to 8 weeks of amenorrhea and a safety wall at 2



figure 2 : Ultrasound image in sagittal section of the uterus: empty uterus with the presence of a gestational sac + embryo located cervically located below the internal orifice of the cervix.



In the biological assessment

Beta HCG returned positive at 37,877

The patient benefited from embolization of both uterine arteries to minimize the risk of hemorrhage before aspiration given the absence of criteria for medical treatment.



Figure 3 : image showing embolization of the 2 uterine arteries

A systemic dose of MTX was administered then it was retained from an ultrasound-guided aspiration in the operating room, the procedure took place without incident.

Strict monitoring of the risk of caffeine,

The patient declared discharged after a good

Monitoring of plasma hCG thereafter objective a progressive decrease, until negativation 5 weeks after the intervention.

Hystero-graphy in 3 months, returned without anomaly.

1- DISCUSSION

The frequency of cervical pregnancies varies greatly depending on the series published in the literature: between 1/1000 and 1/95,000 pregnancies, with an average frequency of 1/20,000 pregnancies.

the risk factors described in the literature the great multiparity , history of uterine curettage, cesarean sections and endometritis, uterine malformations and synechiae, endometrial atrophy, the presence of uterine fibroids and an intrauterine device as well as a context of medically assisted procreation (IVF) are incriminated , Caesarean sections

Described for the first time in 1817 by Sir Evrard Home, its seriousness is essentially linked to the risk of hemorrhagic complications.

Most often, cervical pregnancy is discovered incidentally in an asymptomatic patient during an early ultrasound.

Vaginal bleeding is the most common symptom.

The diagnosis can therefore be made in the context of metrorrhagia in a pregnant patient, or even massive hemorrhage (or shock). Abdominal pain may also be present but found in less than a third of patients.

The contribution of 3-D ultrasound has contributed to the improvement of diagnosis, by offering the possibility of making coronal sections, which provide information with better precision on the level of implantation of the gestational sac.

In case of doubt, MRI offers a definitive diagnosis by objectifying the presence of a “placenta-like” image at the level of the cervical canal associated with trophoblastic invasion of the cervix and massive vascularization.

It was in 1911 that Rubin et al developed criteria to confirm his diagnosis:

- * the presence of endocervical glands next to the placental insertion;
- * endocervical penetration of chorionic villi;
- * the location of all or part of the placenta below the level of penetration of the uterine vessels or below the level of reflection of the peritoneum on the anterior and posterior surfaces of the uterus and the absence of fetal parts inside the bodily cavity.

types of cervical pregnancies:

- endocervical pregnancy: the most described form in the literature and whose essential differential diagnosis is abortion. This location can be evacuated by curettage;
- intramural cervical pregnancy: form for which evacuation by curettage is impossible. Other therapeutic means are indeed of great importance, particularly medical treatment;
- exocervical pregnancy: this form is described in the literature and documented by pathological examination. It simulates a cervical tumor .

Differential diagnosis

*Spontaneous abortion during expulsion

*Pregnancy with cesarean scar

*Intrauterine pregnancy with low implantation: above the internal orifice of the cervix.

*Nabothian cyst.

*Cervical myoma.

*Cervical tumor.

Monitoring the growth of β hCG and ultrasound signs of cervical pregnancy will help make this diagnosis.

Medical treatment :

a- Methotrexate

It can be administered systemically (intramuscular) or locally by injection into the gestational sac under ultrasound guidance. According to a study carried out, the risk factors for failure of treatment of cervical pregnancies with systemic MTX are:

- a serum β hCG level greater than or equal to 10,000 U/l,
- a gestational age greater than or equal to nine weeks,
- the presence of embryonic cardiac activity
- a cephalo-caudal length greater than 10 mm.

b- ultrasound-guided aspiration

Aspiration: ideally under ultrasound guidance has the advantage of shortening the duration of follow-up and helps avoid the undesirable effects of MTX.

It can be accompanied by a significant hemorrhagic risk 40% of hemostasis hysterectomy which is why it can be associated with different techniques aimed at preventing bleeding:

- *Intracervical vasopressin injection, implementation of a prophylactic cerclage
- *Placement of an intracervical Foley catheter
- *Prior local injection of KCl or MTX in the presence of cardiac activity
- *vaginal ligation of the cervical branches of the uterine arteries,
- * Embolization of the uterine arteries.

c- Hysteroscopy

Hysteroscopy allows diagnosis and/or treatment to be made at the same time and under visual control.

it offers the possibility of controlling hemorrhage locally by coagulating the bleeding vessels.

A 2017 publication compares literature data on the use of hysteroscopy. The combination of a systemic MTX injection and a hysteroscopic resection of the cervical pregnancy shows few complications and, in no case, was an additional hysterectomy necessary.

d- hysterectomy

Hysterectomy Only treatment before the 1980s,

Hysterectomy is currently an exceptional treatment.

It can be considered in the event of uncontrolled bleeding leading to an unstable hemodynamic state or even more rarely during a late diagnosis of cervical pregnancy in the second or third trimester.

For some authors, the medical-surgical combination is carried out systematically and would be more effective by increasing the chances of recovery.

Some authors have opted for the practice of curettage 7 days after the administration of MTX. Others have combined MTX and uterine artery embolization.

Despite some cases of medical treatment failure, its success rate in the treatment of cervical pregnancies remains very satisfactory, ranging from 81% to 100% of cases.

This medical-surgical association will aim to remove any residual trophoblastic tissue, reduce blood perfusion of the trophoblastic site or exert direct compression that can stop the bleeding.

8- Conclusion:

Cervical pregnancy is a rare type of ectopic pregnancy whose clinical diagnosis is difficult.

Its hemorrhagic complications can jeopardize the patient's vital prognosis and fertility.

Ultrasound plays an important role in diagnosis and improving patient care.

Medical treatment with methotrexate is currently the treatment of choice before 12 weeks of amenorrhea.

A medical-surgical combination has shown great effectiveness in the treatment.

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