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Case Report

Hysteroscopic treatment of cervical pregnancy: case report

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ABSTRACT

Of ectopic pregnancies, cervical implantation pregnancy is an exceptional entity, corresponding to less than 1% of ectopic pregnancies. With an incidence calculated at 1: 2500 to 1: 12,000 pregnancies. The risk factors for cervical pregnancy are the same as for other ectopic pregnancies. This entity, a difference from tubaric pregnancy where bleeding is within the peritoneal cavity, the main risk is incoercible vaginal bleeding, which usually ends in a hysterectomy, which limits the reproductive future of patients. There are currently no established criteria for candidates for medical versus surgical treatment. This case reports a case of cervical ectopic pregnancy, treated with Methotrexate, and culminating with hysteroscopy resection.

Keywords: Cervical implantation, Ectopic pregnancies, Hysteroscopy, Methotrexate

INTRODUCTION

The cause of cervical pregnancy is still unknown. It occurs when the zygote is implanted in the path of the cervical canal.^{1,2} It is an exceptional entity, corresponding to less than 1% of ectopic pregnancies. With an incidence calculated at 1:2500 to 1:12,000 pregnancies. Early diagnosis is important, to avoid incoercible bleeding and propose a treatment with a higher probability of success.³ Cervical pregnancy is sometimes asymptomatic, and is found as an ultrasound finding. The diagnosis of cervical pregnancy is clinical, with the support of transvaginal ultrasound. Transvaginal ultrasound can be performed safely in a patient with a cervical location pregnancy.⁴ This study improves the diagnosis in 81% of cases.

Management

A first-line management is Methotrexate for stable patients, and immediate surgery for patients with

abundant sacredness accompanied by hemodynamic instability. At present there are no established criteria for the use of Methotrexate in cervical pregnancy, the evidence is limited to case reports and small series.⁵ Previously, evacuation was performed with instrumented uterine curettage, causing incoercible bleeding, which required to be controlled with different methods such as tamponade, cerclages or impingement, with unsatisfactory results that concluded in surgical treatment with hysterectomy.⁶⁻⁸

This work describes the medical treatment with multidose Methotrexate, with serial control of chorionic gonadotropin hormone (CGH), and culminating with hysteroscopic resection.

CASE REPORT

24-year-old patient, originally and resident of Manzanillo, Colima, México, psychologist, single.

Heredofamilial history without relevance for the condition, blood group O positive, chronic degenerative diseases and allergies denied, appendectomy open at 10 years, menarche at 12 years with regular cycles at the rate of 28×3 days, onset of sexual life at 15 years, number of sexual partners: 7, family planning method: condom, one pregnancy.

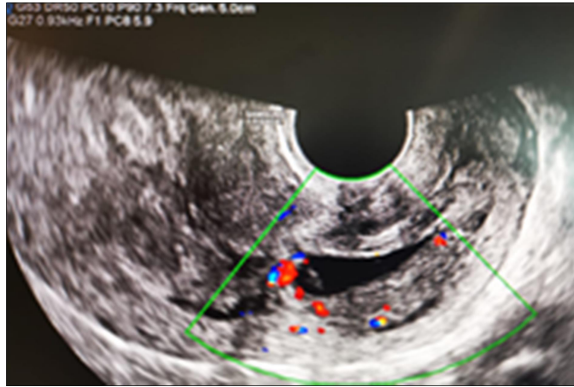


Figure 1: Transvaginal ultrasound showing gestational case of cervical implantation.



Figure 2: Gestational cervical implantation sac.

Go to the emergency department in a second level unit, with little transvaginal bleeding not corresponding to your period, with amenorrhea of 5 weeks, without abdominal pain. It is managed as an evolving abortion by documenting gestational sac in the cervical canal, initiating treatment with misoprostol 800 mcg in 3 sublingual doses, the patient does not have significant vaginal bleeding or cervical modifications, a control ultrasound is performed where gestational sac persists at the cervical level, suspecting in an ectopic pregnancy of cervical location, so it is referred to Naval Medical Center, based in Mexico city.

Upon arrival at this center on January 15, 2020, transvaginal ultrasound is performed where the uterus is shown with 13 mm endometrial thickening, presence of a 14 mm gestational sac attached to the posterior fornix,

with a 4 mm embryonic echo without evidence of cardiac scintillation, sac 2.2 mm vitelline (Figure 1), right ovary with 26×26 mm ovoid image suggestive of corpus luteum. The quantitative CGH, beta subunit, is reported in figures of 66,996 mUI / ml. In a second assessment, at 7.1 weeks gestation, a quantitative CGH, beta subunit of 63984 mUI/ml is reported. The diagnosis of cervical pregnancy is corroborated with a second control ultrasound on January 17, 2020 (Figure 2), so patient and family are informed, and prior informed consent is decided hospital admission and initiation of medical treatment with methotrexate at a dose of 1 mg/kg/day IV, on days 1, 3, 5, 7, with supportive treatment with folinic acid on days 2, 4, 6, 8. Laboratory analysis prior to initiation of treatment, with the following report: Hemoglobin 13.1, hematocrit 38%, platelets 257,000, leukocytes $9,500 \text{ mm}^3$, serum glucose 87 mg/dl, creatinine 0.49 mg, total bilirubin 0.40 mg, direct 0.1 mg, indirect 0.3 mg, TGO 16 IU/L, TGP 13.1 IU/L.

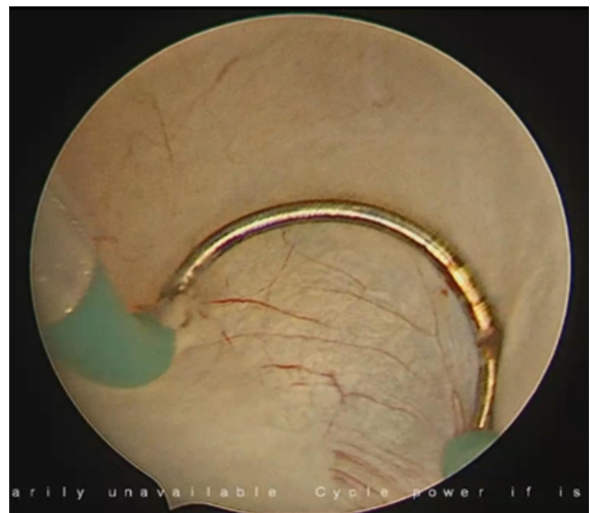


Figure 3: Hysteroscopic resection of cervical gestational sac.



Figure 4: Macroscopic appearance of cervical ectopic pregnancy.

A total 48 hours after the first dose of Methotrexate, a quantification of HGC of 45,929 mUI/ml is obtained. Therefore, medical treatment is continued on days 3.5 and 7, obtaining a quantification of HGC prior to a

surgical procedure of 25,822 mUI/ml. On January 25, 2020 hysteroscopy is performed with access by vaginoscopy, with 5.5 mm Betoichi equipment (Karl Storz), with 0.9% physiological solution, installed with a Hamou II pump, with flow of 200 ml per minute and pressure of 100 mmHg, suction of 0.2 barr. Cervix with permeable external and internal orifice is located, organized material compatible with gestational sac implanted in posterior aspect of the cervix is observed. Implantation zone resection is performed with 5.8 mm bipolar resect or (mini resectoscope), with coagulation of the implantation site of the gestational sac (Figure 3). As soon as the piece was completely resected, it was extracted from the cervical canal with curved uterine forceps, in a second surgical time an endouterine manual aspiration was obtained obtaining moderate endometrial material, a minimum trans operative bleeding was reported. The patient course with adequate postoperative evolution, hemodynamically stable, tolerating ambulation and orally 12 hours after the procedure, being discharged at 48 hours.

Upon discharge on January 27, 2020 with a report of leukocyte laboratories of $9,100 \text{ mm}^3$, Hb 9.5 g, platelets 202,000, neutrophils 83.2%, quantitative HGC, beta subunit of 2,866 mUI/ml. On February 5th, a new quantitative HGC is performed, a 138 mUI/ml beta subunit and a control ultrasound with a $9 \times 5 \times 5 \text{ cm}$ uterus report, a 3.8 mm endometrial echo, both of which are annexes of normal ultrasound characteristics.

The macroscopic aspect of cervical pregnancy can be seen in Figure 4, the histopathological report was as follows: chorial villi of the first trimester with intermediate trophoblast (implantation site).

DISCUSSION

Medical treatment with Methotrexate in conjunction with hysteroscopic resection, can be a viable management in patients with cervical location ectopic pregnancy. Currently, there are no established guidelines to determine which patients are candidates for such management, considering quantitative HGC level, beta subunit, gestational sac size or caudal skull length if present.^{3,4} The early diagnosis of this entity is a priority to initiate adequate management and provide the patient with a lower risk of morbidity as far as radical surgical treatment is concerned.¹

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