ECRONICON OPEN ACCESS

EC GYNAECOLOGY
Case Report

Retrospective Review of Uterine Artery Embolization in Two Cases of Cervical Pregnancies

OV Polikarpova[1]*, NA Shevchenko[1], VM Grabovsky[1] and AE Vanyukov[2]

[1]Gynecology Department, City Hospital 52, Moscow, Russia

[2]Department of X-ray Diagnostic Methods and Treatment, City Hospital 52, Moscow, Russia

Corresponding Author: OV Polikarpova, Gynecology Department, City Hospital 52, Moscow, Russia.

Received: October 01, 2019; **Published:** November 04, 2019

Abstract

Ectopic pregnancy is one of the most common disease in obstetric and gynecology/Ectopic pregnancy refers to the implantation of a fertilised ovum outside of the uterine cavity. In the cervical form of an ectopic pregnancy is the fetal egg attaches and develops in the cervical canal. Earlier, the only method of treatment is to stop bleeding during cervical pregnancy was laparotomy and hysterectomy. In modern medicine, many methods have been proposed to prevent bleeding during fetal egg extraction in this type of ectopic pregnancy in order to preserve the woman's reproductive function, one of which is uterine artery embolization. In this article, we want to share our experience in managing patients with cervical pregnancy and the use of UAE to prevent the occurrence of uterine bleeding.

Keywords: *Uterine Artery; Cervical Pregnancies*

Introduction

Cervical pregnancies are rare type of the ectopic non tubal pregnancy for less than 1% of all ectopic pregnancies [1,2,12]. According to various studies abortion, caesarean section, myomectomy, IVF, Asherman syndrome, diagnostic curettage of the uterus increase the risk of this form of pregnancy. Cervical pregnancy, in classical obstetrics, is an absolute indication for hysterectomy, which is a tragedy for women of reproductive age. The several methods of management nontubal ectopic pregnancies are currently being used in order to avoid hysterectomy (Methotrexate, curettage and local injection of prostaglandins, intracervical balloon tamponade of the cervical canal after curettage, circular suture on the cervix, uterine artery embolization (UAE), hysteroscopic resection, ligation of the uterine and hypogastric arteries) [2-7,9,10-12].

In our clinic, the UAE method is widely used for adequate haemostasis.

Uterine artery embolization is a contemporary organ saving management method.

The advantage of embolization is the complete occlusion of the chorionic vessels or the main artery. This is performed by introduction of solid particles mixed with a contrast agent until the antegrade blood flow through the artery is completely stopped and the retrograde blood flow appears in the internal iliac artery [8,13].

Case Report and Discussion

We report of 2 clinical cases of the management of ectopic cervical pregnancy by embolization of the uterine arteries followed by vacuum aspiration of the abortion.

In two clinical cases, puncture, catheterization, insertion of an introducer into the right common femoral artery was used as standard access for endovascular intervention according to the standard Seldinger technique. Initially, a "UAC" 5 Fr catheter is inserted in the contralateral internal iliac and then in the uterine artery. Then we used Embozene 900 microemboli. It is recommended to perform embolization until the blood flow stops in the trunk of the uterine artery or until the symptom of "Burnt Tree" appears and the blood flow in the uterine artery slows.

Patient A., 35 years old, turned to a female patient with complaints of delayed menstruation, nausea, swollen and tender breasts. I independently performed a pregnancy test - positive. In the hospital, according to ultrasound, the diagnosis of ectopic pregnancy was established, was directed to City Clinical Hospital No. 52. The complaints were non-specific: pulling pains in the lower abdomen and spotting from the genital tract. Estimated gestational age is 5 weeks (Survey data are presented in table 1).

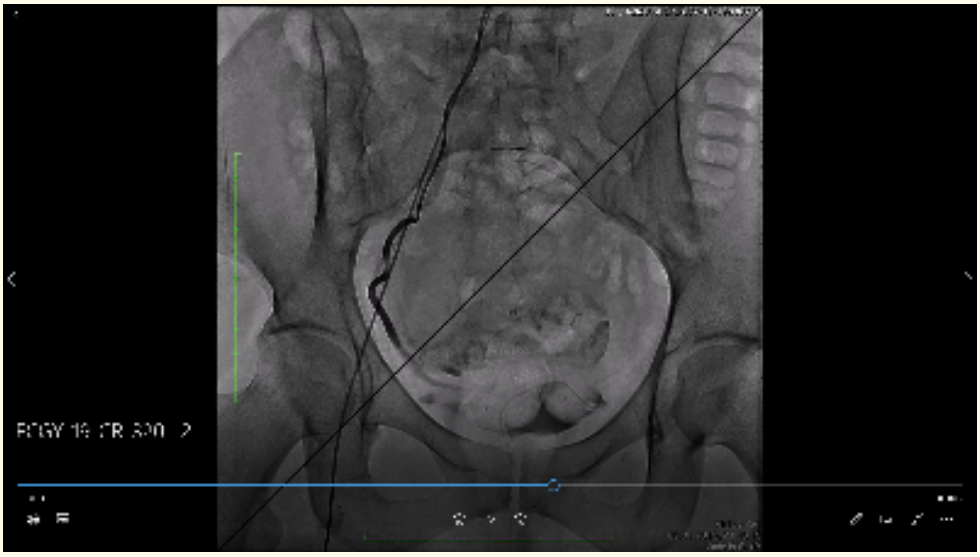
By transvaginal ultrasound, the diagnosis of ectopic cervical was confirmed.

Patient S., 40 years old, was admitted to the gynecological department in emergency way with complaints of pulling pains in the lower abdomen and spotting from the genital tract. Estimated gestational age 6 weeks and 2 days. (The survey data are presented in table 1). Ultrasound examination showed a deep invasion of the chorion into the posterior wall of the cervix.

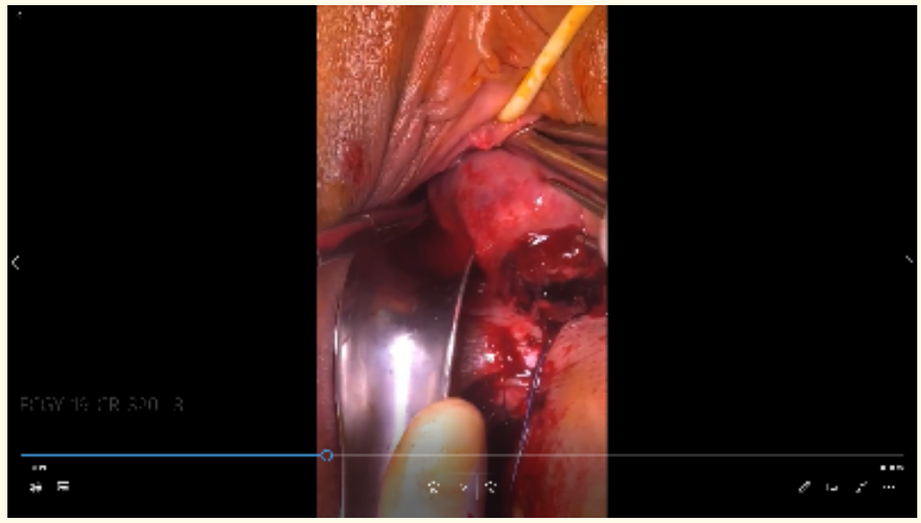
Comparison test	Patient A	Patient S
Pregnancy	5 weeks	6 weeks and 2 days
Complaints	pulling the lower abdomen, vaginal bleeding	pulling the lower abdomen, vaginal bleeding
Reproductive function	Childbirth - 2, non-complicated Abortion - 1, non-complicated A non-viable pregnancy - 1, non-complicated	Childbirth - 2 - cesarean section, non-complicated Abortion - 4, non-complicated
Gynecological diseases	None	Cervical ectopy - diathermocoagulation in 2007 Uterine myoma since 2018.
Clinical Entry Tests	HGB -130.0 g/l; RBC - 4.37 10* 12/l; PLT - 159.0 10* 9/L; WBC - 7.5 10* 9/l; HCG of blood - 9 411.00 U/ml.	HGB - 113.0 g/l; RBC - 4.12 10* 12/l; PLT - 261.0 10* 9/L; WBC - 6.7 10* 9/l; HCG - 80 585.00 U/ml.
Ultrasound of the internal female genital organs: Examined transvaginally, transabdominally.	The uterus is located posteriorly. The size of the uterus 60 x 54 mm, the myometrium is heterogeneous. The body of the uterus is round shape. The endometrium is heterogeneous, thickness is 13 mm with a single hypoechoic inclusion 10 x 4 mm in the avascular mode of color flow mapping (CFM). There is not the fetal egg in the uterus. The cervix 60 x 48 mm, the structure is homogeneous, in the cervical canal a heterogeneous inclusion of 10 x 4 mm with an uneven, fuzzy contour in the CFM mode with pronounced vascularization is located The fallopian tubes are not located. Free fluid in the pelvis is not located.	The uterus is usually located, the length of the uterus to 57 mm, in the lower third of the uterine cavity 1 fetal egg. Coccyx-parietal size - 24 mm. The yolk sac diameter – 4 mm, the heartbeat is determined, rhythmic, 175 beats per minute. Attachment of the chorion from the scar and below (in the lower third of the uterus and cervix). Cervix length 16 mm.

Table 1

For adequate haemostasis, both patients underwent UAE. The first angiogram shows a hypervascular lesion. On the second - complete hemostasis of the trunk of the right uterine artery without signs of perifocal blood flow.



After UAE of the first patient, in the framework of the expanded operating room, cervical pregnancy was removed, cervical suturing, vacuum-aspiration of the contents of the uterine cavity were performed.

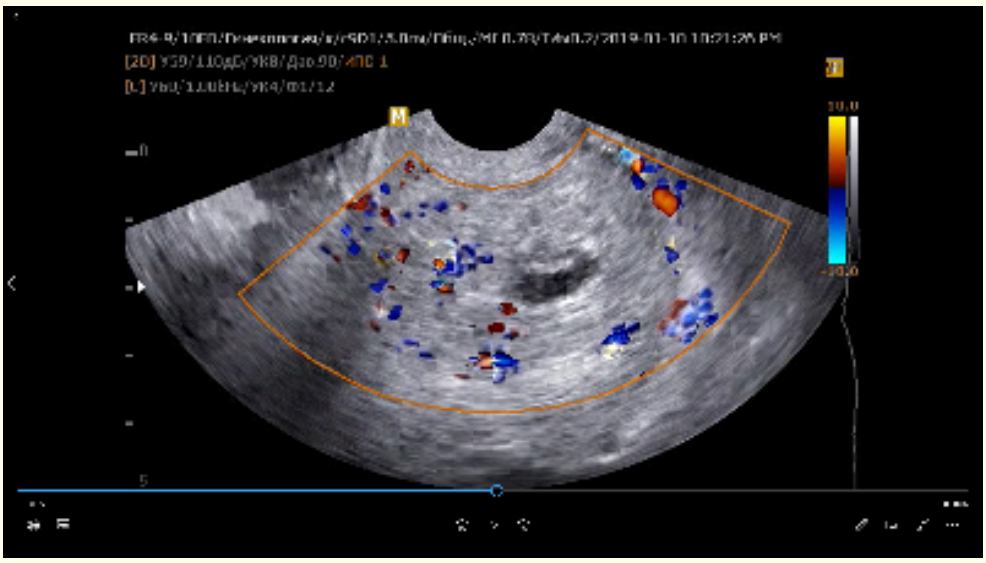


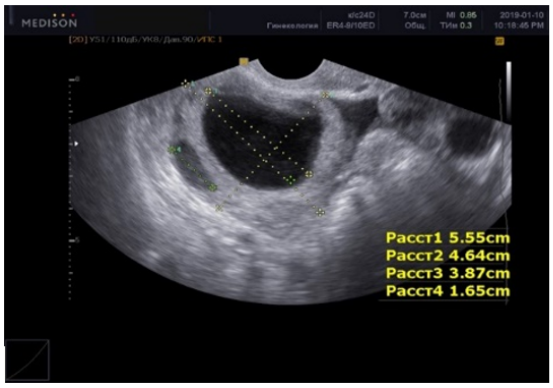
Significant blood loss (50 ml) was not detected (Hemoglobin upon admission 130 g /l, at the time of discharge 115 g/l). The postoperative period was uneventful. The diagnosis was histologically confirmed. Discharged 4 days after management (Table 2).

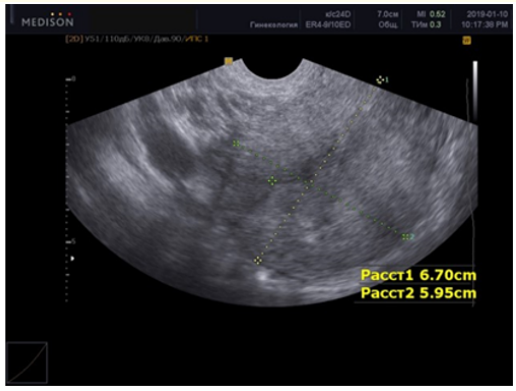
The second patient, after UAE performed vacuum aspiration of the contents of the uterus. The operation underwent with blood loss 250 ml and for more adequate haemostasis balloon uterine tamponade was performed, intravenous administration of "Oxytocin" 10 units, rectally "MIROLUT" 400 μg. Total blood loss was 300 ml. In 3 hours the balloon was removed – the haemostasis was complete. Discharged 4 days after management (Table 2).

Comparison test	Patient A	Patient S
Clinical discharge tests	HGB - 115.0 g/l; RBC - 4.02 10 * 12/l PLT - 135.0 10 * 9/L; WBC - 5.1 10 * 9/l; HCG of blood - 718.00 U/ml.	HGB - 94.0 g/l; RBC - 3.54 10 * 12/l; PLT - 201.0 10 * 9/L; WBC - 8.3 10 * 9/l; HCG of blood -17 709.00 U/ ml.
Ultrasound of the internal female genital organs	The body of the uterus is 72 x 81 x 82 mm The contours are even. The body of the uterus is round shape. The structure of the myometrium is diffusely changed. The endometrium is 24mm. The uterine cavity is not deformed, enlarged to 24 mm, the structure of a heterogeneous, in the presence of an avascular hypoechoic component on the left. The cervix 46 x 40 x 63 mm, in the projections of the cervical canal a heterogeneous structure of 45 x 26 x 40 is distinguished, taking into account the peculiarities of vascularization, with hyperechoic linear inclusions - elements of the suture material. The size of the left ovary is 31 x 21 x 30 mm with follicle up to 4 - 5 mm. The right ovary is located in a typical place 55 x 48 x 48m in size with an anechogenic inclusion of 45mm in size. The fallopian tubes are not located. Free fluid in the pelvis is not located.	Free fluid in the pelvis is not located. The uterus is located in the middle. The body of the uterus 7.3 x 5.2 x 7.5 cm, is in anteflexio. The contours are even. The structure of the myometrium is diffusely heterogeneous. The uterine cavity is expanded to 10 mm due to the heterogeneous average echogenicity of the contents, avascular with CFM. The cervix was examined fragmentarily, with dimensions of 4.3x4.8 cm, with fuzzy contours, on accessible inspection sites echostructure not changed. The cervical canal is expanded to 7 mm due to heterogeneous average echogenicity of contents. The ovaries are not visualized.

Table 2: *Examination results before discharge.*







On the control visit (2 - 3 months). Menstrual function is adequate, there are no any specific complaints. According to the ultrasound and vaginal examination the pathology was not detected.

Conclusion

EMA is a minimally invasive high-tech management that can prevent massive blood loss, and its combined with usual technique and allows us to perform conservative.

Bibliography

1. Elson CJ., *et al*. "Diagnosis and Management of Ectopic Pregnancy". *BJOG* 123 (2016): e15-e55.

2. II Grishin., *et al*. "New Opportunities in Treatment of Cervical Pregnancy". *Lechebnoe Delo* 4 (2010): 93-97.

3. Romanova ML., *et al*. "A case of heterotopic pregnancy with selective reduction of the ovum cervical localization and preservation of intrauterine pregnancy". *Journal of Obstetrics and Women's Diseases* 66.5 (2017): 64-68.

4. Lessey BA. "Assessment of endometrial receptivity". *Fertility and Sterility* 96.3 (2011): 522-529.

5. Adamyan LV., *et al*. "Combination treatment in women with cervical pregnancy". *Obstetrics and Gynecology* 4.2 (2012): 103-108.

6. Paulson RJ. "Hormonal induction of endometrial receptivity". *Fertility and Sterility* 96 (2011): 530-535.

7. Lipatov I.S., *et al*. "Preservation of the reproductive function at cervical pregnancy by application of uterine artery embolization". *Modern Problems of Science and Education* (2016): 6.

8. J Reedy "Embolization of the Uterine Arteries". *MGIK* (2003): 51-57.

9. Jurkovic d., *et al*. "Diagnosis and treatment of early cervical pregnancy: a review and a report of two cases treated conservatively". *Ultrasound in Obstetrics and Gynecology* 8 (1996): 373-380.

10. Timor-Tritsch IE., *et al*. "Successful management of viable cervical pregnancy by local injection of methotrexate guided by transvaginal ultrasonography". *American Journal of Obstetrics and Gynecology* 170 (1994): 737-973.

11. Alammari R., *et al*. "Vaginal Hysterectomy for Treatment of Cervical Ectopic Pregnancy". *Obstetrics and Gynecology* 129.1 (2016).

12. Savelyeva GM., *et al*. "Uterine fibroids". *National Gynecology Guide* (2007): 991.

13. VV Artyushkov., *et al*. "Experience of using selective uterine artery embolization in the treatment of cervical pregnancy". *Kuban Scientific Medical Bulletin* 2.163 (2017).

Volume 8 Issue 12 December 2019