International Journal of Reproduction, Contraception, Obstetrics and Gynecology
Ramanathan R et al. Int J Reprod Contracept Obstet Gynecol. 2024 Jun;13(6):1609-1611
www.ijrcog.org
pISSN 2320-1770 | eISSN 2320-1789

DOI: https://dx.doi.org/10.18203/2320-1770.ijrcog20241459

Case Report

A successful conservative management of cervical ectopic pregnancy

Ramayee Ramanathan*, Niranjana Rajan

Department of Obstetrics and Gynaecology, Vijaya Medical and Educational Trust, Chennai, Tamil Nadu, India

Received: 13 April 2024
Accepted: 04 May 2024

***Correspondence:**
Dr. Ramayee Ramanathan,
E-mail: alpharamayee@gmail.com

ABSTRACT

Cervical ectopic pregnancy is a rare life-threatening condition with an incidence of less than 1% among all ectopic pregnancies. A 27-year-old primigravida presented with spotting per vaginum following 4 weeks 5 days of amenorrhea. Transvaginal ultrasound done at 4 weeks 5 days showed a gestational sac located in the anterior wall of cervix, diagnosis of cervical ectopic pregnancy was made. Initial serum beta hCG titre was 4106 mIU/ml. Serial monitoring of serum beta hCG done showed increasing values. Hence, decided for medical management with single dose of injection methotrexate, as the diagnosis was made at an early gestation and patient was hemodynamically stable. On follow up, serum beta hCG did not fall significantly, hence multidose methotrexate regimen was initiated. She responded to it, but she continued to have persistent bleeding per vaginum with fall in hemoglobin levels, hence sorted for surgical management which included suction and evacuation, after ligation of descending cervical artery and subsequently cervical tamponade. Intraoperative period was uneventful. On follow-up, patient was asymptomatic and vitals stable. Serum beta hCG done 2 weeks post procedure was below 5 mIU/ml and resumed spontaneous cycles after a month. Thus, early detection and accurate diagnosis of cervical ectopic pregnancy using ultrasound and serial beta hCG titre monitoring becomes a cornerstone of management. We present this case as it was her index pregnancy, with a need to preserve future fertility, successful conservative management of Cervical ectopic pregnancy with combination of medical and surgical intervention.

Keywords: Cervical ectopic, Ectopic pregnancy, Methotrexate

INTRODUCTION

An ectopic pregnancy is one in which the blastocyst implants anywhere other than the endometrial lining of the uterine cavity. Nearly 95% of ectopic pregnancies are implanted in the fallopian tube. In cervical ectopic pregnancy, the implantation occurs in endocervical canal, which is a rare condition, accounting for less than 1% of ectopic pregnancies. The incidence of cervical ectopic pregnancy is reported between 1:8600 to 1:12,400.[1] Etiology of cervical ectopic pregnancy is still unknown, but there is evidence for its association with cervicouterine instrumentation. Due to improved ultrasound resolution it is possible for early detection of these pregnancies and lead to conservative treatment with an attempt to limit morbidity and preserve future fertility.[2]

CASE REPORT

A 27-year-old woman, primigravida who had a spontaneous conception, confirmed by positive urine pregnancy test at 4 weeks 2 days of amenorrhea, visited our hospital at 4 weeks 5 days of gestation with complaints of spotting per vaginum for 2 days. On examination, patient was hemodynamically stable and there was no abdominal tenderness on palpation. Pelvic examination revealed minimal spotting per vaginum, swollen anterior lip of cervix and closed external cervical os. Transvaginal ultrasound reported a gestational sac of 9×7 mm in the anterior wall of cervix close to the external os, yolk sac seen, and fetal pole not seen features suggestive of cervical ectopic pregnancy (Figure 1). At the same time, serum beta hCG titre done was 4106 mIU/ml. After explaining the risk

and prognosis of cervical ectopic pregnancy, decided for conservative management with understanding of the need for surgical intervention when medical treatment fails. Baseline blood investigations were within normal limits. Based on the evidence-based treatment, medical termination of pregnancy initiated with oral mifepristone 200 mg single dose followed by single dose of 50 mg intramuscular methotrexate. Serial serum beta hCG monitoring done showed values on Day 4: 5677 mIU/ml and Day 7: 7873 mIU/ml.

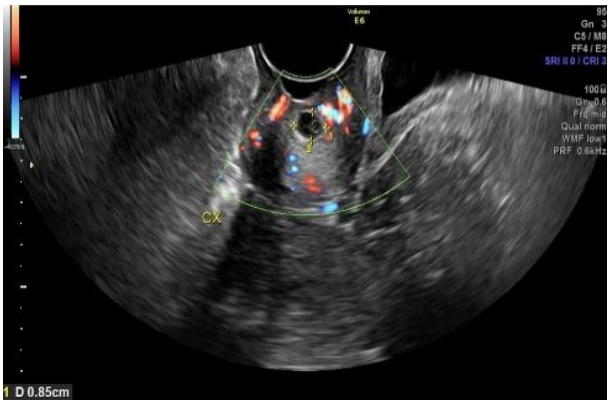

Figure 1: Ultrasonogram image of cervical ectopic pregnancy.

In view of raising serum beta hCG trend, planned for multidose regimen of methotrexate. Patient continued to have minimal spotting per vaginum on and off. After explaining the side effects of multidose methotrexate, 3 doses of intramuscular methotrexate 62.5 mg (based on area under curve) given on Day 1,3 and 5 with oral folinic acid 15 mg on day 2, 4 and 6. Patient continued to be hemodynamically stable. Follow up ultrasound screening showed a gestational sac of 12×12 mm in the anterior wall of cervix, more centrally placed (when compared to previous scan) with yolk sac seen and no fetal pole. Blood investigations repeated after multidose methotrexate showed mild deranged liver enzymes, for which she was started on short course of oral ursodeoxycholic acid, for its hepatoprotective effect. Repeat serum Beta hCG on day 8 was 3980 mIU/ml, which showed decreasing trend. Despite serum beta hCG on decreasing trend, after 10 days of completion of multidose methotrexate patient had excessive bleeding per vaginum leading to severe anaemia with hemoglobin of 6.8 gm%, hence patient planned for surgical intervention. Pre procedure, anaemia correction done with one unit of packed red-blood cell transfusion. Consent for the surgical intervention obtained with remote chances of hysterectomy when other measures to control bleeding fails. With interventional radiologist standby for uterine artery embolization (if needed), proceeded with Suction and evacuation of cervical ectopic after ligation of descending cervical artery followed by cervical tamponade with no. 8 foley. Specimen (Figure 2) sent for histopathological examination. Intraoperative and Postoperative period was uneventful.

Histopathology examination showed ectopic products of conception with ecto cervical squamous and endocervical mucosa, which confirmed the diagnosis of cervical ectopic pregnancy, which was successfully managed by multidisciplinary intervention at the appropriate time. On follow-up, patient was asymptomatic and vitals stable. Serum beta hCG done 2 weeks post procedure was below 5 mIU/ml.

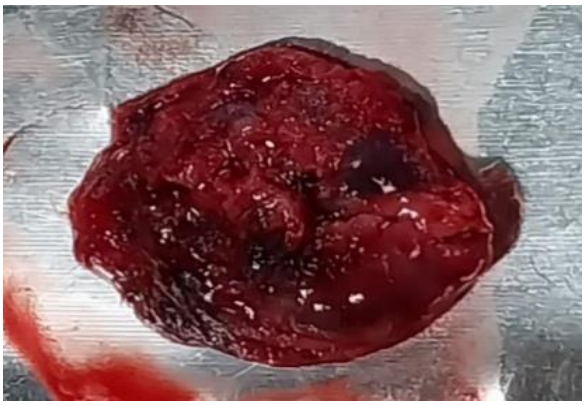

Figure 2: Specimen of cervical ectopic pregnancy.

DISCUSSION

Cervical ectopic pregnancy results due to implantation of fertilized ovum in the endocervical canal below the level of internal OS, with a reported incidence of less than 1% of all pregnancies. Incidence of cervical ectopic is higher with invitro fertilization procedures accounting for 3.7 % of invitro fertilization related ectopic pregnancies.[3] Even though it is a rare condition, poses serious threat to the mother's life and fertility.

Rubin's criteria for diagnosis of cervical pregnancy

Cervical glands must be opposite the placental attachment. Placental attachment to the cervix must be situated below the entrance of the uterine vessels or below the peritoneal reflection of anterior and posterior surface of the uterus, Fetal elements absent in uterus.[4]

Ultrasonographic criteria for cervical pregnancy

Gestational sac visualised inside the cervix, no intrauterine pregnancy, hourglass uterine shape with ballooned cervical canal, sliding sign negative, closed internal os.[5]

Ultrasonographic findings described above helps in differentiating a true cervical ectopic pregnancy from an ongoing abortion. Magnetic resonance imaging is used as an imaging modality in this situation. Other potential diagnosis that must be differentiated from cervical pregnancy includes cervical carcinoma, cervical or prolapsed submucosal leiomyomas, trophoblastic tumor, placenta previa and low-lying placenta.[6] Management of cervical ectopic pregnancies includes medical treatment

with injection methotrexate and surgical dilatation and curettage.

The ideal regimen for medical management is unknown and success is reported with both single and multiple dose regimens. In more advanced gestational age, with fetal cardiac activity, may require a combination of multidose methotrexate and intra-amniotic/intrafetal injection of potassium chloride.[7,8] In our case, there was no positive history of risk factors for cervical pregnancy like cervicouterine instrumentation or artificial reproductive techniques. The clinical picture of present case suggesting cervical ectopic pregnancy were bleeding per vaginum following a period of amenorrhoea, a soft and edematous cervix.

Ultrasonogram report was conclusive of cervical ectopic pregnancy and histopathological examination also confirmed the same. Early suspicion and accurate diagnosis is a key to successful conservative management of this condition. Various options that are available for control of bleeding during surgical intervention are uterine packing, tamponade with foley's catheter, ligation of cervical branch of uterine artery, placement of cervical cerclage, uterine artery embolization and hysterectomy as last sort if other treatment option fails.

CONCLUSION

Despite the complications that can occur with methotrexate treatment, it is still by far, the cheapest and effective treatment of cervical ectopic pregnancies. If necessary, procedures can be combined with minimally invasive surgeries as done in this case. Therefore, any future pregnancy should be kept under suspicion for possible cervical ectopic pregnancy as treatment involved cervicouterine manipulation as a part of treatment.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Hoffman BL, Schorge JO, Schaffer JI, Halvorson LM. Cunningham Williams Gynaecology. 2nd ed. USA: Mc-GrawHill Medical; 2012:198,213.
2. Ushakov FB, Elchalal U, Aceman PJ, Schenker JG. Cervical pregnancy: past and future. Obstet Gynecol Surv. 1997;52(1):45-59.
3. Karande VC, Flood JT, Heard N. Analysis of ectopic pregnancies resulting from in-vitro fertilisation and embryo transfer. Hum Reprod. 1991;6:446.
4. Voedisch AJ, Frederick CE, Nicosia AF, Stovall TG, Berek JS, Novak E. Early Pregnancy Loss and Ectopic Pregnancy In: Berek JS, Berek DL eds. Berek & Novak's Gynaecology 15th ed. Philadelphia: Wolters Kluwer/ Lippincott Williams &Wilkins; 2012:619-51.
5. Kung FT, Lin H, Hsu TY. Differential diagnosis of cervical ectopic pregnancy and conservative treatment with the combination of laparoscopy assisted uterine artery ligation and hysteroscopic endocervical resection. Fertil Steril. 2004;81:1642-9.
6. Bader-Armstrong B, Shah Y, Rubens D. Use of ultrasound and magnetic resonance imaging in the diagnosis of cervical pregnancy. J Clin Ultrasound. 1989;17:283-6.
7. Leeman LM, Wendland CL. Cervical ectopic pregnancy:diagnosis with endovaginal ultrasound examination and successful treatment with methotrexate. Arch Fam Med. 2000;9:72-7.
8. Sijanović S, Vidosavljević D, Topolovec Z, Milostić-Srb A, Mrčela M. Management of cervical ectopic pregnancy afster unsuccessful methotrexate treatment. Iran J Reprod Med. 2014;12(4):285-8.

Cite this article as: Ramanathan R, Rajan N. A successful conservative management of cervical ectopic pregnancy. Int J Reprod Contracept Obstet Gynecol 2024;13:1609-11.