

A case report of cervical ectopic pregnancy

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ABSTRACT

Background: Cervical ectopic pregnancy is an extremely rare condition with potential grave consequences if not diagnosed and treated early enough.

Case Presentation: We present a case with clinical detail and sequential ultrasound images of early cervical ectopic pregnancy with a history of two previous cesarean sections. The cervical ectopic pregnancy was successfully diagnosed on ultrasound, treated with dilation and curettage followed by methotrexate without any complications.

Conclusion: By accurate and timely diagnosis, we can reduce morbidity and preserve fertility of the patient.

Keywords: Cervical ectopic pregnancy, case report, ultrasound, Doppler, gestational sac, dilatation and curettage, methotrexate.

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Background

Cervical pregnancy (CP) is a rare kind of intrauterine ectopic pregnancy. Cervical ectopic pregnancies account for less than 1% of all pregnancies, with an estimated incidence of 1 in 2,500 to 1 in 18,000 [1]. Improved ultrasound resolution and earlier detection of these pregnancies have led to the development of more conservative treatments that attempt to limit morbidity and preserve fertility [2].

Case Report

A 26 years old female, gravida 3, para 2, sure of dates with previous history of two cesarean sections at full term, presented to our department with 2 weeks history of on and off vaginal bleeding. Urine pregnancy test was positive. It was diagnosed as incomplete abortion (Figure 1) in a previous ultrasound scan at a different diagnosis center. A repeat ultrasound was performed in our department that showed a well-defined normal sized uterus having no gestational sac, however, trace of fluid was noted in the lower part of uterine cavity. The cervix was distended and showed a cystic structure with thick echogenic rim looking like a gestational sac without embryonic pole (Figure 2), well below the cesarean scar which was intact. The sac was adherent to the anterior wall of cervix as on color Doppler, blood flow was detected in it and in surrounding anterior wall of cervix (Figure 3). Presumptive diagnosis of cervical ectopic pregnancy was made rather than retained product of conception. Her gynecologist did dilatation and curettage (DnC) despite our concern for CP. The patient complained of heavy bleeding after the

procedure. Post DnC repeat ultrasounds showed an irregular gestational sac in the cervix essentially below the prior cesarean section scar and in the cervix. Methotrexate was given and after 7 days repeat scan was performed which showed significant decrease in the size of gestational sac. Quantitative beta Human Chorionic Gonadotrophin (HCG) was 7,430 mIU/mL at the time of presentation and started declining with methotrexate administration to normal non-pregnant levels after 5 weeks. Bleeding stopped completely and the patient resumed her normal periods. Follow-up ultrasound after 5–6 weeks showed almost normal appearance of cervix and uterus.

Discussion

CP results due to implantation of a fertilized ovum in the endocervical canal below the level of internal os with a reported incidence of less than 1% of all pregnancies [1,2]. Diagnosis and treatment of CP have enormously changed in the last 15 years. Before 1980, diagnosis was made when DnC for presumed incomplete abortion resulted in sudden and uncontrollable hemorrhage [1]. Hysterectomy was practiced in order to save the patient's life. Today, CP is diagnosed by ultrasound during the first trimester of pregnancy, so that the patient's fertility can be preserved [3]. In our patient, the gestational sac was implanted below the previous cesarean section scar. The uterus was empty and the sac showed no evidence of embryonic pole in two different ultrasounds. Cervix was distended on ultrasound



Figure 1. Normal sized uterus with empty endometrial cavity. Cervix contains an ill-defined cystic lesion with faint thick rim.

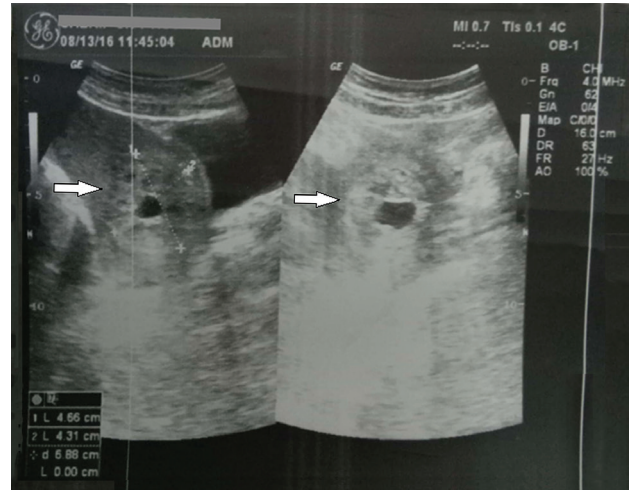


Figure 2. Repeat ultrasound three days later. Cervix distended and showing a cystic structure with thick echogenic rim, indicating gestational sac which appears to be adherent to the anterior wall of cervix.

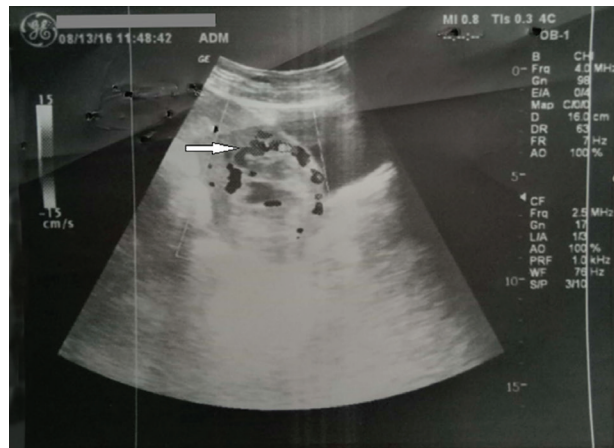


Figure 3. On color Doppler ultrasound, blood flow is seen in anterior cervical wall and vessels are traversing to the gestational sac indicating implantation.

exam and there was no sliding of the gestational sac upon applying pressure with the ultrasound probe. Color Doppler also confirmed blood flow around the gestational sac. Unlike true CP, cervical abortion is suggested by the body of the uterus being larger than in the nongravid state owing to the recent loss of the intrauterine pregnancy. Serial ultrasound examinations performed over a few days should distinguish the cervical abortion by the transience of the sac if the diagnosis is in doubt [4]. Another differential of scar pregnancy can be considered if gestational sac is seen implanted within the cesarean scar not in cervix as in case of cervical ectopic pregnancy. Though it is very rare, but the possibility of cervical ectopic pregnancy should be kept in mind when a patient presents with first trimester pregnancy failure and vaginal bleeding.

The specificity of three-dimensional (3D) ultrasound imaging has been reported to be better than two-dimensional (2D) scans as the 3D image incorporates an additional

coronal section that is not possible with 2D imaging. MRI can be helpful in some difficult cases of cervical ectopic pregnancy. The MRI findings of CP include: (a) presence of a mass with heterogeneous signal intensity and (b) partial or complete dark rim on T2-weighted images [5].

Conclusion

Ultrasound could be successfully used in the diagnosis of CP, which aided the subsequent management, resulting in successful preservation of fertility. Treatment choices may be divided into five categories: tamponade, reduction of blood supply, excision of trophoblastic tissue, intra-amniotic feticide, and systemic chemotherapy. In most reported cases of CP, treatments from more than one category are used, our patient presented with active bleeding and from the beginning; termination of the pregnancy was strongly favored by both the gynecologist and the patient. Transvaginal ultrasound-guided aspiration in combination with single-dose

methotrexate administered systemically can be safely used to treat cervical ectopic pregnancies.

Acknowledgement

None.

List of abbreviations

3D	Three dimensional
2D	Two dimensional
CP	Cervical pregnancy
DnC	Dilatation and curettage

Consent for publication

Written informed consent was obtained from the patient to publish this case in a medical journal.

Ethical approval

Ethical approval was sought from Sharif Medical & Dental College Lahore Ethical Committee.

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Specialty:

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References

1. Leeman LM, Wendland CL. Cervical ectopic pregnancy: diagnosis with endovaginal ultrasound examination and successful treatment with methotrexate. *Arch Family Med* 2000; 9(1):72–7.
2. Singh S. Diagnosis and management of cervical ectopic pregnancy. *J Hum Reprod Sci* 2013; 6(4): 273–6.
3. Starita A, Di Miscia A, Evangelista S, Donadio F, Starita A. Cervical ectopic pregnancy: clinical review. *Clin Exp Obstet Gynecol* 2006; 33(1):47–9.
4. Vae W, Suresh PL, Tang-Barton P, Salimi Z, Carlin B. Ultrasonographic differentiation of cervical abortion from cervical pregnancy. *J Clin Ultrasound* 1984; 12(9):553–7.
5. Okamoto Y, Tanaka YO, Nishida M, Tsunoda H, Yoshikawa H, Itai Y. MR imaging of the uterine cervix: imaging-pathologic correlation. *Radiographics* 2003; 23(2):425–45.

Summary of the case

Patient (gender, age)	1	Female, 26 years
Final Diagnosis	2	Cervical ectopic pregnancy
Symptoms	3	Pregnancy with vaginal bleeding
Medications (generic)	4	Methotrexate
Clinical Procedure	5	Ultrasound
Specialty	6	Clinical radiology