A Case of Cervical Pregnancy Following Uterine Curettage: the Most Advanced in Iranian Population

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Abstract
A case of cervical ectopic pregnancy in a 37 years old woman with history of two previous cesarean sections and one dilatation/curettage. The case was the advanced cervical pregnancy reported in Iran, which diagnosed in 12 week of gestation by MRI and finally treated by hysterectomy.

Keywords: Ectopic Pregnancy, Cervical pregnancy, MRI, Hysterectomy

Introduction
First described in 1817, cervical ectopic pregnancy is an uncommon pregnancy complication, but the incidence is increasing as a result of ART, cesarean section and dilatation/curettage. Identification of cervical pregnancy is based on speculum examination, palpation, and transvaginal sonography. Magnetic resonance imaging has been used to confirm the diagnosis. A 14-week cervical pregnancy is the most advanced case reported. Here we present a case of 12 weeks, the most advanced cervical pregnancy case reported in Iran.

Case presenting
The case was a 37 years of old woman, fourth gravida second para with 1 abortion and 2 living children, with marriage date of 12 years and history of two previous cesarean sections 11 and 7 years ago and one dilatation/curettage for the incomplete abortion 5 years ago. She presented with spotting in recent 20 days, following 2 ½ months of menstrual retard and positive BHCG (beta human chorionic gonadotropin) test. Her initial general condition was fair, and vital signs were within normal limits. There were no abnormalities in systemic examination, where, vaginal examination with speculum revealed bloody mucoid discharge from the cervix, and a posterior protrusion of cervix due to anterior lip enlargement. In bimanual pelvic examination cervix was ballooned out and positioned posterior, uterus had a size of an 8-week pregnancy and adnexa were normal.

The patient declined a transvaginal ultrasound examination, which showed an empty uterus with normal decidual reaction and an extremely low positioned, almost in isthmic to intra cervical gestational sac, with gestational age of 12 weeks according to bi-parietal diameter. The placenta was circular and fetal cardiac activity was present. Gestational age according to the last menopausal period was 12weeks+4days. As Ultra-sound examination could not detect the exact location of
Cervical pregnancy was first described in 1817 and first named as such in 1860. In a 1911 case report, Rubin (1) established diagnostic criteria for cervical pregnancy: close attachment of placenta to the cervix, cervical glands present opposite the implantation site, placental location below uterine vessel insertion or below anterior and posterior reflections of the visceral peritoneum of the uterus, and no fetal elements in the uterine corpus. Prior to the late 1980s, clinical diagnosis of cervical pregnancy was usually made when curettage for presumed incomplete spontaneous abortion resulted in uncontrollable hemorrhage. Most women required emergent hysterectomy and transfusion of large volumes of blood.

Implantation of the zygote in the cervix is uncommon, but the incidence is increasing as a result of ART (2). According to Jeng and colleagues (3), 60 percent of women with a cervical pregnancy had previously undergone dilation and curettage, as in our case. In a typical case, the endocervix is eroded by trophoblast, and the pregnancy proceeds to develop in the fibrous cervical wall. The higher the trophoblast is implanted in the cervical canal, the greater is its capacity to grow and hemorrhage.

According to Jeng and colleagues (3), a 14-week cervical pregnancy is the most advanced case reported. However this case is the most advanced case reported in Iran. They described experiences with 38 referred cases at a mean of 8.8 weeks and whose serum -hCG levels ranged from 2800 to 103,000 mIU/mL. The level of our case was also the highest, already reported in Iran.

Identification of cervical pregnancy is based on speculum examination, palpation, and transvaginal sonography. Findings include an empty uterus and a gestation filling the cervical canal. Magnetic resonance imaging and three-dimensional sonography have been used to confirm the diagnosis (2).

MRI has been used in few cases of cervical pregnancy. It is performed when the diagnosis by US is difficult. First, it is not usually available under emergency conditions; and second, it does not add important information to ultrasound findings. In our case the pregnancy was very precious and MRI was used to improve diagnostic accuracy.

Cervical ectopic pregnancy shows ill-marginated mass with very heterogeneous signal intensity on T2-weighted images, irregular internal high-signal intensities on T1-weighted images, a partial or circumferential rim of low-signal intensity, dense irregular peripheral enhancement and enhancing papillary solid components with accompanying tubular signal voids, and variably increased parametrial vascularities. This heterogeneous hemorrhagic mass
with densely enhancing papillary solid components may be the typical MR finding for cervical pregnancy (4).

Options for treatment of cervical ectopic pregnancy depend on the fetal gestational age and the woman’s desire to maintain fertility. Primary hysterectomy- the operation performed in our case- may still be appropriate in the following settings: intractable hemorrhage; second- trimester or third-trimester diagnosis of cervical pregnancy; and possibly to avoid transfusion or emergency surgery in a woman who does not desire fertility. Every published case of cervical pregnancy beyond 12 weeks’ gestation by ultrasonographic measurement has ultimately resulted in hysterectomy, (5) and hysterectomy might therefore be reasonably considered as primary therapy in these circumstances, just like our case.

In conclusion

Cervical pregnancy is a rare and serious form of ectopic pregnancy. Although there are many options for treatment, yet hysterectomy is among the best choices for women desiring no further fertility.

References