Case Report

Undiagnosed Cervical Ectopic Pregnancy: Continuing to a Viable Gestation

D. Hayes-Ryan,1 N. Khawaja,2 S. Higgins,1 and P. Lenehan1

1Department of Obstetrics and Gynaecology, National Maternity Hospital, Dublin 2, Ireland
2Department of Obstetrics and Gynaecology, Portiuncula General Hospital, Galway, Ireland

Address correspondence to D. Hayes-Ryan, dee.hayesryan@hotmail.com

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Abstract We report an extremely unusual case of an undiagnosed cervical ectopic pregnancy resulting in the birth of a live born baby with catastrophic maternal hemorrhage necessitating peripartum hysterectomy, highlighting the importance of early diagnosis and treatment of such cases.

Keywords cervical ectopic pregnancy; peripartum hysterectomy; massive obstetric hemorrhage

1. Introduction

Cervical pregnancy is a rare form of ectopic pregnancy in which the pregnancy implants in the lining of the endocervical canal. It accounts for less than one percent of ectopic pregnancies. The incidence is approximately one in 9,000 deliveries. The potential morbidity—highlighted by this case study—demonstrates the importance of early diagnosis of a cervical ectopic so as early intervention and treatment may be employed.

2. Case presentation

We report a case of a 32-year-old para 0 + 0 transferred from a peripheral unit at 24 + 1 with preterm prelabor rupture of membranes (PPROM). Ultrasound in our unit demonstrated an estimated fetal weight of 615 g, breech position, anhydramnios, and upper location of placenta.

In early pregnancy, she had presented at 8/40 and 14/40 with PV bleeding and the possibility of a cervical ectopic pregnancy was considered given the low position of the fetus in the uterine cavity. However, after two second opinion ultrasounds the location of the pregnancy was considered intrauterine and progressed until PPROM at 24/40.

At 25 + 3 she developed severe lower backpain and antepartum hemorrhage > 500 mL. She underwent emergency cesarean for suspected placental abruption with an obstetric consultant in attendance.

On opening the peritoneal cavity, the uterus was found to be markedly abnormal looking (Figure 1); the pregnancy lay below the anatomical uterus in a distended, thin walled segment. A female weighing 700 g was delivered in good condition through a transverse lower uterine incision.

A massive postpartum hemorrhage of six liters followed due to lower uterine segment atony complicated by disseminated intravascular coagulation. Attempts at stabilization of the patient for transfer to a unit with interventional radiology were unsuccessful. An emergency subtotal hysterectomy was performed (Figures 2 and 3). The patient required massive transfusion of red blood cells (RBC), platelets, and fresh frozen plasma (FFP). Histology confirmed a cervical pregnancy.

The patient recovered well until day 17 when she was readmitted with a secondary postpartum hemorrhage. She underwent angiography by interventional radiology which showed two bleeding vessels in the lower pelvis on either side (Figure 4). Both were embolized and she recovered well until day 24 when she again suffered a postpartum hemorrhage. Examination under anesthesia (EUA) was performed at which time multiple clots were expelled from the cervical remnants and she made an uncomplicated recovery.
3. Discussion
The cause of a cervical ectopic pregnancy is unknown; local pathology related to previous cervical or uterine surgery may play a role given an apparent association with a prior history of curettage or cesarean delivery. Another theory is rapid transport of the fertilized ovum into the endocervical canal before it is capable of nidation or because of an unreceptive endometrium.

The most common symptom of cervical pregnancy is vaginal bleeding, which is often profuse and painless. Lower abdominal pain or cramps occur in less than one-third of patients; pain without bleeding is rare. It is important to think about the possibility of cervical pregnancy in such patients since early diagnosis is critical to avoidance of complications and successful treatment.

Ultrasonographic criteria for diagnosis of cervical pregnancy consist of the following:

1. gestational sac or placenta within the cervix;
2. normal endometrial stripe;
3. hourglass-shaped uterus with ballooned cervical canal.

Magnetic resonance imaging can be helpful in unusual or complicated cases when the diagnosis is uncertain. Rubin defined histologic criteria for cervical pregnancy, but a histologic diagnosis is not clinically practical since it requires hysterectomy. Rubin’s criteria consist of: close attachment of the 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 [1].

The most effective treatment of cervical pregnancy is still unclear. Publications on this subject are limited to case reports with a small number of cases. Medical rather than surgical therapy of cervical pregnancy is recommended with administration of multidose, systemic methotrexate intramuscularly [2].

In patients who are hemodynamically unstable or choose surgical therapy, preoperative uterine arterial embolization followed by dilation and evacuation has been recommended. If preoperative uterine arterial embolization is not available, then ligation of the descending branch of the uterine artery prior to dilation and evacuation may be performed with placement of a balloon catheter to tamponade the bleeding until hemodynamically stable [3].

The potential morbidity—highlighted by this case study—demonstrates the importance of early diagnosis of a cervical ectopic so as early intervention and treatment may be employed.

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Conflict of interest The authors declare that they have no conflict of interest.
References

