

# Cervical Ectopic Twin Pregnancy: Challenges in Patient Management Grossesse Extra-Uterine Cervical Twins: Management Challenges



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## Abstract

Cervical ectopic pregnancy is a rare and serious form of ectopic pregnancy. It is characterized by abnormal implantation of a fertilized ovum in the endocervical canal below the level of the internal os. This is a case report of a 34-year-old female presented with amenorrhea of 6 weeks with a positive urine pregnancy test. In her obstetrical history we found 2 caesarean delivery. Gynecological examination revealed a slightly enlarged uterus with a thin cervix in an anterior position. Serum human chorionic gonadotropin was high and the transvaginal ultrasound showed an empty uterine cavity and a cervical dichorionic diamniotic twin pregnancy. Despite its rareness, the cervical pregnancy is associated with the highest rates of significant bleeding. Early diagnosis helps to prevent maternal morbidity caused by hemorrhage and leads to a conservative management.

**Keywords:** Twin pregnancy; Treatment; Cervix; Twin pregnancy-treatment-cervix

## Introduction

Cervical ectopic pregnancy is a rare and serious form of ectopic pregnancy. It is characterized by abnormal implantation of a fertilized ovum in the endocervical canal below the level of the internal os. Early diagnosis is important for conservative treatment options. Transvaginal ultrasound improves diagnostic accuracy in early detection of cervical pregnancy [1]. This case highlights the diagnosis and management of twin cervical ectopic pregnancy at seven weeks' gestation.

## Case report

The patient was a 34-year-old female (gravida 3, para 2) presented with amenorrhea for 6 weeks with a positive urine pregnancy test. Her obstetrical history was significant for 2 caesarean delivery. She had no previous intrauterine procedures, pelvic inflammatory disease, or intrauterine devices. There was no history of induction of ovulation by drugs or artificial reproductive techniques. Gynecological examination revealed a slightly enlarged uterus without adnexal masses. Vaginal examination revealed an anterior position of the cervix, which was extremely thin, with a closed external os. Serum human chorionic gonadotropin (hCG)

was 70.249IU/ml. The preliminary transvaginal ultrasound examination showed an empty uterine cavity and a cervical dichorionic diamniotic twin pregnancy (Figure 1). Crown-rump length of the two embryos was 5mm and 5.4mm corresponding to 6 weeks gestation with cardiac activity. Four doses of methotrexate 50mg were given intramuscularly on alternate days. On day 7, Serum hCG was 3000mIU/cc. As the patient developed bleeding following methotrexate treatment, dilatation and curettage were performed. The patient was discharged the next day uneventfully. Four weeks after the procedure, the  $\beta$  hCG serum dropped below detectable limits, and there was no evidence of any collection on transvaginal ultrasound.

## Discussion

Cervical pregnancy is a rare form of ectopic pregnancy, that accounts for less than 1% of ectopic pregnancies; but it is associated with the highest rates of significant bleeding [2,3]. Women with an ectopic pregnancy commonly present with pain and vaginal bleeding between 6- and 10-weeks' gestation [4] but one third of them have no clinical signs and 9% have no symptoms [5], as in this case study. The causes of ectopic pregnancy remain

uncertain although several risk factors have been identified. These include prior dilatation and curettage, prior caesarean section, and in vitro fertilization [6]. The present patient had risk factor of previous caesarean section. It is important to differentiate a cervical pregnancy from an inevitable abortion [7]. If the gestational sac can be moved by the vaginal probe, or the internal os is dilated, an incomplete abortion is more likely [8]. Transvaginal ultrasound improves diagnostic accuracy in early detection of cervical pregnancy. The main ultrasound criteria, cited by Ruano et al. [1], are gestational sac in the cervix, empty uterine cavity, dilated cervix, and normal uterine size (excluding the alternative possibility of spontaneous abortion in progress). Various medical and surgical treatments for cervical pregnancy have been reported, but there are still no standard treatment protocols. Methotrexate is generally the first-line method for clinically stable women [9,10]. It functions as a folate antimetabolite that inhibits DNA synthesis in actively dividing cells [3]. Several conditions are necessary for medical management. First, the patient must be hemodynamically stable patient without bleeding or with mild bleeding, second, the menstrual age of viable cervical pregnancy must be less than 10 weeks and showing no active renal or hepatic disease, no evidence of leucopenia or thrombocytopenia. Among the various routes for methotrexate administration, intramuscular route is usually preferred [11]. In this case medical management was initiated followed by suction curettage.

### Conclusion

Although cervical pregnancies are rare, an increasing number of cases has been reported because of risk factors like high cesarean section rate and increased use of assisted reproductive technique for management of infertility. Early diagnosis of this condition by ultrasound imaging helps to prevent maternal morbidity caused

by hemorrhage and leads to a conservative management of this condition.

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