## CASE REPORT

# Cervical Ectopic Pregnancy

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## INTRODUCTION

Cervical ectopic pregnancies account for less than 1% of all pregnancies, with an estimated incidence of one in 2500 to one in 18,000 with potential grave consequences if not diagnosed and treated early enough[1,2]. Its etiology is still unclear. We present a case and ultrasound images of an early cervical ectopic pregnancy in a primigravida who was successfully treated with suction and evacuation.

## CASE REPORT

A 20 year old primigravida, referred from a Private hospital as a case of cervical ectopic pregnancy, with active married life of 4 months conceived spontaneously, presented with 2 months of amenorrhea with complaints of abdominal pain and bleeding P/V for 2 days. Her last menstrual period was on 9/11/15 followed by spotting on 17/12/15. Her past menstrual cycles were regular, moderate and painless. There was no history of taking TT injection or undergoing MTP, abortion and contraception. On admission, her pulse rate was 96/min, BP- 120/80 mm of Hg, SpO2- 99% on air. On examination, her abdomen was soft. On per speculum examination spotting was present and Os appeared to be closed. Per vaginal examination was withheld in view of cervical ectopic pregnancy. Initial investigations revealed Hb- 9.80 gm/dl, WBC- 14,200/mm3, platelets- 2,44,000, RBS-85mg/dl, RFT,LFT and electrolytes were WNL, β-hCG-7052.33 mIU/l. Her USG pelvis revealed an ill-defined G sac like structure measuring 12mm corresponding to 6 weeks and 1 day in cervical canal. Fetal pole was seen but fetal cardiac activity was absent, with empty uterine cavity. The patient was posted for Suction evacuation. Dilatation followed by suction and evacuation was done under short general anaesthesia and the tissue specimen was sent for histopathological examination. 1 unit PCV was given intraoperatively. Histopathological examination showed cervical tissue with chorionic villi and trophoblastic proliferation suggestive of Ectopic cervical pregnancy.

## DISCUSSION

Cervical pregnancy 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 0.1% of all pregnancies[1,2]. Early and timely diagnosis is critical for successful treatment and to avoid complications. Clinical manifestations include a period of amenorrhoea followed by profuse and often painless vaginal bleeding. Abdominal pain or cramps may occur in less than one third of patients. Even with advanced diagnostic modalities and reduction in current maternal mortality rates, Cervical pregnancy remains a life-threatening condition[3]. Although predisposing factors like endometrial damage after curettage or chronic endometritis, leiomyoma, intrauterine devices, in vitro fertilization and primary embryo anomaly are implicated in the pathogenesis of Cervical pregnancy, the rarity of the condition has prevented any retrospective studies, and the association of Cervical pregnancy with all these factors remains weak [4,5].

Criteria for the diagnosis of cervical pregnancy (Rubin 1911)[6]

1. Cervical glands must be adjacent to the placental attachment.
2. Placental attachment to the cervix must be situated below the entrance of the uterine vessels or below the peritoneal reflection of the anterior and posterior surfaces of the uterus.
3. Fetal elements must be absent from the corpus uteri.

Because strict anatomical and histological criteria necessitate a hysterectomy for a complete study of the entire uterus, Palman and McElin[7] proposed 5 more clinically practical criteria for the diagnosis of this condition.

1. Uterine bleeding without cramping pain following a period of amenorrhoea.

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2. A soft, enlarged cervix equal to or larger than the fundus (the hour glass uterus).
3. Products of conception entirely confined within and firmly attached to the endocervix.
4. A closed internal cervical os.
5. A partially opened external os.

Sonographic demonstration of an intrauterine pregnancy represents extremely valuable evidence against the possibility of an extrauterine pregnancy. It should be understood that heterotopic pregnancies do occur and their incidence is increasing. Patients undergoing ovulation induction are at a higher risk. Endovaginal transducers greatly enhance visualization of early pregnancies. In ectopic pregnancies one may visualize a pseudogestational sac in which there will be only a single echogenic layer (instead of the two concentric echogenic rings of a true gestational sac) surrounding an intraendometrial fluid collection. Colour Doppler (especially transvaginal) will demonstrate focal "peritrophoblastic" flow that demonstrates a low resistance pattern on pulsed Doppler waveform analysis[8]. It tends to show a focal area of arterial flow adjacent to the sac that is more intense than other colour flashes in the uterus. Because of low diastolic resistance, this area of colour flow will appear continuous or nearly continuous during real time examination. As with intrauterine pregnancies, extrauterine pregnancies will

**Figure 1 Endocervical location of the gestational sac demonstrated with echogenic midline vaginal cavity proximally (asterisk) and the echogenic decidual reaction in the endometrial cavity distally (arrow).**

**Figure 2. Peritrophoblastic blood flow in Color Doppler.**


also show focally recognizable intense areas of colour flow. But they may demonstrate a high resistance pattern. Sonography is a pivotal examination in assessing ectopic pregnancy. In majority of cases, this diagnosis can be promptly made. A sonographic impression of cervical pregnancy is correct in 87.5% of cases. MRI maybe helpful in unusual or complicated cay

Treatment modalities can be medical or surgical. Single or multidose intramuscular Methotrexate is effective in 80-90% of cases of early cervical ectopic pregnancy.

Surgical modalities includeDilatation & Evacuation or Hysterectomy. The main complication of D&E is a high incidence of severe haemorrhage which can be reduced by preoperative measures like transvaginal ligation of cervical branches of the uterine arteries, cervical encerclage, angiographic uterine artery embolization, intracervical vasopressin injection, balloon catheter tamponade of the implantation site after evacuation. It is desirable to avoid hysterectomy to enable future child bearing.Even though cervical ectopic pregnancy is very rare, there should be increased awareness of the condition. Timely and prompt diagnosis is essential for successful treatment and also to avoid interventions which could lead to severe haemorrhage necessitating hysterectomy.

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