

## Case Report: Misdiagnosed Case of Cervical Ectopic Pregnancy with Catastrophic Bleeding

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### Abstract

Cervical ectopic pregnancy is a rare form of ectopic pregnancy with implantation of fertilized ovum in the cervical canal below the internal os. Incidence of cervical pregnancy varies 1:1000-95000 and associated with high maternal morbidity and mortality due to high chances of pregnancy being misdiagnosed. To reduce maternal mortality, it is indeed necessary to understand the importance of correct diagnosis by clinical or radiological or biochemical methods available. Here we present a case of a 36-year-old female reported to us in Noble hospital as a misdiagnosed case of cervical ectopic pregnancy with catastrophic bleeding. Management of the cervical ectopic pregnancy is dependent on several factors such as the patient's gestational age, fetal cardiac activity, stability of the patient, patient's interest in retaining future fertility, and the availability of resources and expertise of the practicing gynaecologist. The cervical ectopic pregnancies though rare, do occur, and their incidence is increasing. A high index of suspicion, clinical and radiological correlation, especially in cases with previous uterine scars can pick up this rare entity preoperatively. If diagnosed early conservative management can be offered. However, missed diagnosis can lead to high morbidity and mortality.

**Keywords:** Cervical ectopic pregnancy, Maternal Mortality, catastrophic bleeding, uterine scar.

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### INTRODUCTION

Ectopic pregnancy is defined as implantation of fertilized ovum at site other than normal uterine cavity. Most common ectopic site for implantation is fallopian tube. However ectopic pregnancy can invariably occur in ovary, cervix, and abdominal wall, cornual and cesarean scar.

Increase in incidences of ectopic pregnancy due to rise in incidences of Pelvic inflammatory disease, IUD uses, various tubal surgery for infertility and current practices of ART techniques for infertility. Clinical presentation may vary from painless first trimester vaginal bleeding to hemodynamic compromises in patients.

### CASE REPORT

A 36 year old female gravida 4 para 1 abortion 2 (G4P1A2) with 1 previous Cesarean delivery and 2 medical termination of pregnancy by dilation and evacuation with history of 2 and ½ months amenorrhea with heavy vaginal bleeding reported in Emergency

Department of Noble hospital referred from outside as diagnosed case of incomplete abortion with intractable and heavy vaginal bleeding while performing suction and evacuation which could not be controlled despite of all efforts. On examination, the patient was looking pale, pulse rate was 144/min, blood pressure 80/60 mm hg, SPO2-90% with oxygen. Her abdomen was soft with previous transverse Cesarean scar and no evidence of free fluid. Per speculum examination revealed heavy bleeding with passage of clots. Per vaginal examination revealed open external os with distended and ballooned cervix. Uterus was anteverted bulky with no adnexal pathology.

Her previous USG reported intrauterine pregnancy of 8 weeks with fetal cardiac activity. She was prescribed MTP pills for termination. She complained of heavy bleeding few days after consumption of MTP pills and reported to her clinician immediately for whom she was posted for emergency dilation and evacuation for heavy bleeding considering it as incomplete abortion. During dilation and evacuation there was intractable bleeding which could

not be stopped despite all efforts hence referred to us for further management.

Patient was hemodynamically unstable hence immediate resuscitation performed and blood product was arranged. Bedside ultrasound performed which reported cervical ectopic gestation in our institute. The patient was taken to OT for exploratory laparotomy after informed consent. Intraoperatively findings revealed bulky uterus, no hemoperitoneum with ballooned Cervico-isthmic region suggestive of cervical pregnancy. Incision was given on Cervico-isthmic junction and an attempt was made to remove the product of conceptus as a conservative measure to avoid hysterectomy. In attempt to shave off the product of conceptus, profuse bleeding started. Haemostatic suture was taken but bleeding could not be controlled. Hence decision of Obstetrics hysterectomy was taken and after informed consent obstetric hysterectomy was performed for intractable bleeding.



**Fig-1**



**Fig-2**

The specimen was cut open in OT. Grossly uterus and cervix measured 10 x 5.5 x 4 cm. Fundus and body appeared smaller than the cervix. Cervix was distended with the product of conceptus below internal os on the cut section. The specimen was sent for histopathological examination.

Histopathological confirmed findings of cervical ectopic gestation with evidence of trophoblastic invasion. Microscopy: sections studied show cervical canal wall lined by blood clots, decidua, chorionic villi and trophoblast. At places, chorionic villi seen abutting the underlying fibromuscular tissue without intervening decidua. Endometrium shows secretory changes.

#### **Impression**

1. The gross and microscopic features are consistent with cervical pregnancy with trophoblastic invasion.
2. Endometrium shows gestational changes.

#### **Cervical pregnancy is defined by Rubin's criteria in 1817 as following [1]**

1. The cervical glands must be opposite the attachment of the trophoblast/placenta.
2. Attachment of trophoblast must be below the level of entrance of uterine vessels to the uterus or anterior peritoneal reflection.
3. Fetal elements (products of conception) must be absent from the corpus uteri.

However, these criteria can be applied only on a hysterectomy specimen as done in our case. Palmaan and McElin had proposed clinical criteria for diagnosing this condition.

1. Uterine bleeding without cramping pain following a period of amenorrhea.
2. Hourglass-shaped uterus.
3. Partly open external os.
4. Closed internal os.
5. Products of conception entirely confined within the cervix and firmly attached to the endocervix.

#### **DISCUSSION AND CONCLUSIONS**

The patients with cervical pregnancy present with painless first trimester vaginal bleeding, although some cases have presented with cramping pain and are often misdiagnosed as abortion. On examination, there is a soft distended cervix which is disproportionately enlarged compared to the uterus, a partially opened external cervical os and profuse haemorrhage on manipulation of the cervix.

With a high index of suspicion, sonography can suggest this rare diagnosis. On ultrasound if the gestational sac is present in the cervix with trophoblastic invasion of the cervical wall and an intact part of the cervical canal exists between the gestational sac and the uterine endometrium. However, this was missed in the initial report, and retrospective review of the plates did suggest some of these sonological features [2].

A mere presence of gestational sac in the cervix could also indicate the cervical stage of abortion, which can be ascertained by demonstration of sliding sign on ultrasound [2].

Management of the cervical ectopic pregnancy is dependent on several factors such as the patient's gestational age, fetal cardiac activity, stability of the patient, patient's interest in retaining future fertility, and the availability of resources and expertise of the practicing gynaecologist. Several treatment choices are available. Conservative management is ideal for patients with <9 weeks of gestational age and the absence of fetal cardiac activity. It includes systemic methotrexate therapy in single dose or multiple dose regimens [2].

Advanced gestational age, presence of fetal cardiac activity, failure of conservative management, and active profuse bleeding necessitate surgical interventions which includes curettage with. Foley catheter tamponade, local prostaglandin injections, angiographic uterine artery embolization, bilateral uterine or iliac artery ligation, Shirodkar type cervical cerclage, cervicotomy, and hysterectomy for patients who are no longer interested in retaining their fertility [3, 4].

To conclude, the cervical ectopic pregnancies though rare, do occur, and their incidence is increasing. A high index of suspicion, clinical and radiological correlation, especially in cases with previous uterine scars can pick up this rare entity preoperatively. If diagnosed early conservative management can be offered. However, missed diagnosis can lead to high

morbidity and mortality.

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Nil

#### **Conflicts of interest**

There were no conflicts of interest

#### **Compliance with Ethical Standards**

#### **Research Involving Human Participants & Animals**

Not applicable

#### **Informed Consent**

Informed Consent was obtained from participants included in study

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