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Case Report

Cervical ectopic pregnancy: a rare complication

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ABSTRACT

Cervical ectopic gestation is a rare site and frequently confused with neoplastic process. Profuse bleeding can occur if the placenta is mistaken for a tumor and a biopsy is taken which may lead to hysterectomy. Cervical gestation also can be mistaken for an incomplete abortion where Products Of Conception (POC) are retained within the cervical canal may lead to diagnostic dilemma. We are presenting a case of cervical ectopic which was successfully managed conservatively.

Keywords: Ectopic pregnancy, Dilatation & curettage, Methotrexate, β HCG

INTRODUCTION

Cervical ectopic pregnancy is quite rare.[1] Cervix is a highly fibrous and vascular part with a very less capability to contract that makes this ectopic location a hazardous one, after placental separation. In the past, cervical ectopic pregnancy was associated with significant hemorrhage and was treated presumptively with hysterectomy. Improved ultrasound resolution and earlier detection of these pregnancies has led to the development of more conservative treatments that attempt to limit morbidity and preserve fertility.

CASE REPORT

A 23 years G3P1L1A1 lady reported with history of 7 weeks and 2 days of amenorrhea and minimal bleeding per vaginum. There was no history of pain abdomen, fever or fainting episodes. She had undergone caesarean section in 2010 for foetal distress and D&C in 2011 for missed abortion at 10 weeks Period Of Gestation (POG). Her earlier cycles were regular. Urine for pregnancy test was positive. Trans-Vaginal Ultrasound (TVS) suggested single gestational sac (G sac) of 10.24 mm size corresponding to 5 weeks 3 days period of gestation with a yolk sac of 4.2 mm without any fetal pole. This G sac was seen in the cervical canal 2.2 cm away from external os, indenting cervical stroma completely (Figure 1).

Figure 1: TVS showing cervical ectopic pregnancy before treatment.

Endometrial cavity was empty and endometrial thickness was 14 mm. On per vaginal examination cervix was soft and ballooned up with normal size anteverted uterus.

External os was partially opened. Diagnosed as a case of cervical ectopic pregnancy, patient was admitted and blood demand was sent. All the haematological values were within normal limits. Medical management was planned as patient was stable with early gestation. A base line β HCG showed 22231.0 mIU/ml. Patient was administered 200 mg of tab mifepristone followed by intramuscular inj. methotrexate @ 50 mg/m^2 BSA after 48 hours and inj folinic acid @ 0.1 mg/kg was given on the next day. Apart from clinical (including vaginal bleeding) and haematological monitoring, the assessment of the effect of medical management was done with serial β HCG level and trans-vaginal sonography. Serum β HCG at 1st week increased to 29178.0 mIU/ml. A second dose of inj. methotrexate & folinic acid was given. Patient was put on monitoring with weekly serum β HCG and TVS (Figure 2). Third week onward the serum β HCG values started decreasing by >50% and β HCG normalized at 6 weeks post 1st dose of methotrexate (Table 1). Patient reported spotting per vaginum off & on during the follow up period which was managed with tab. tranexemic acid.

Figure 2: TVS showing shrunken G sac of cervical ectopic pregnancy 4 weeks after treatment.

Table 1: Serum β HCG quantitative.

Date	β HCG (m IU/ml)
06/03/14	22231.0
12/03/14	29178.0
19/03/14	14079.0
26/03/14	6314.0
02/04/14	3128.0
09/04/14	805.0
16/04/13	200
23/04/13	2

DISCUSSION

The incidence of cervical pregnancy ranges from 1:2500 to 1:18000 pregnancies. The cervix is a hazardous site for placental implantation because the trophoblast can penetrate through very less contractile fibrous cervical wall into uterine blood vessels which at the time of placental separation may lead to significant blood loss. Predisposing factor for cervical pregnancy includes prior D&C, IVF, Asherman's syndrome, intra uterine device use, previous cesarean delivery, diethylstilbestrol exposure, and leiomyomas. D&C is the major predisposing factors for cervical ectopic pregnancy accounting for 70% of the cases[1]and in our case two of the risk factors (D&C and previous caesarean) were present.

According to Rubin's Criteria, the diagnosis of cervical pregnancy was made primarily at the time of histological analysis of the hysterectomized uterus.[2] Palman and McElin (1959) proposed five more clinical criteria's for the diagnosis of this condition - uterine bleeding without cramping pain following a period of amenorrhea; a soft, enlarge cervix equal to or larger than the fundus (the "hour glass" uterus); products of conception entirely confined within and firmly attached to the endocervix; a close internal OS; a partially opened external OS. Similar features were present in this present case.

High degree of clinical suspicion along with sonography is integral to the early detection of cervical pregnancy. Hourglass uterus or dilated cervix is the characteristic finding of cervical pregnancy. The use of Doppler flow sonography helps in distinguishing abortions in progress from those with vascular implantation in the cervix. The sliding sac sign helps to distinguish it from an abortion in progress.[3] Magnetic resonance imaging may be used to confirm the diagnosis.[4] Being a peripheral hospital colour Doppler and MRI facility were not available with us.

The surgical management often requires an abdominal hysterectomy. D&C may be complicated by profuse hemorrhage. Various techniques that can be used to control bleeding include uterine packing, lateral cervical suture placement to ligate the lateral cervical vessels, placement of a cerclage, and insertion of an intracervical 30-mL Foley catheter in an attempt to tamponade the bleeding.[5] Alternatively, angiographic artery embolization can be used.[6] If laparotomy is required, an attempt can be made to ligate the uterine or internal iliac arteries.[3] When none of these methods is successful, hysterectomy is required.

Medical management has become first line treatment in a stable patient. The success of medical management increases with cervical pregnancy below 12 weeks, without foetal cardiac activity and low bHCG level.[7] Medical management apart from avoiding the inherent morbidity of anesthesia and surgery is also cost-effective and offers the success rates comparable to surgical management, with no loss in future potential fertility. The drug most frequently used for medical management of ectopic pregnancy is methotrexate, although other agents have been studied, including potassium chloride (KCl), prostaglandins, and RU-486 (mifepristone). Though β HCG was high in our patient, we went ahead with

medical management as she was stable, no fetal pole was seen and period of gestation was 7w3d.

Methotrexate has been found to be an ideal drug for the medical management.[8] In a metaanalysis Kung et al. analysed 62 cases of cervical pregnancy treated by methotrexate and found to have 91% efficacious. Gestational age greater than 9 weeks, crown–rump length greater than 10 mm, hCG levels above 10000 mlU/mL and fetal cardiac activity were associated with increased chance of primary failure.[9] Intra-amniotic injection in combination with systemic methotrexate seemed to increase the chance of successful treatment. Nevertheless, there is no clear recommendation about the optimal dosage or route of administration.

To conclude, the optimal treatment of cervical ectopic pregnancy is largely unknown. Medical management should be first line treatment in a stable patient. A plan for emergent attainment of hemostasis such as uterine artery embolization or local tamponade is also necessary in cases of patients presenting with heavy bleeding.

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