

Diagnosis and management of cervical ectopic pregnancy - report of three cases

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ABSTRACT

Cervical pregnancy is a rare variety of ectopic gestation. The etiology is obscure. Diagnosis may be difficult unless the clinician/the radiologist are conscious of the entity.

Keywords: Cervical ectopic pregnancy, hysterectomy, methotrexate therapy.

Cervical pregnancy is a rare form of ectopic pregnancy with an estimated incidence of 0.1% - 1.0% of all ectopic pregnancies.¹ Pregnancy in this area is an uncommon but possibly life threatening condition due to the risk of severe hemorrhage. Treatment options vary from conservative management to emergency hysterectomy depending on the clinical presentation.

We discuss here our experience with three cases where there was delay in referral, varied mode of presentation, difficulty in diagnosis and management. Their possible association with previous uterine curettage and scarring was noticed.

CASE 1

A 29 year old lady, gravida 4, was referred at 13 weeks pregnancy with missed abortion in process of expulsion diagnosed by USG. Obstetric history revealed two first trimester abortions evacuated by dilatation and curettage and previous LSCS. Decision was taken for dilatation and evacuation which resulted in massive hemorrhage. Intra-operative re-examination revealed a bulky uterus with ballooned cervical canal full of clots. In view of her ultrasonography report and present clinical picture, of cervical pregnancy was suspected. Foley catheter tamponade was attempted, failing which laparotomy was done. Bilateral uterine artery ligation was done followed by hysterotomy. Uterine packing done and uterus closed in layers. Pack removal done 48 hours post-operatively and patient discharged in satisfactory condition.

CASE 2

A 36-yr-old lady gravida 3, para1 (LSCS 13 yrs back followed by secondary infertility) was referred with doubtful molar pregnancy with excessive bleeding per-vaginum following dilatation and curettage. On examination, uterus was 14 weeks size, cervix appeared to be ballooned but as patient was bleeding, she was taken up for curettage which resulted in massive bleeding intra-operative by raising suspicion of cervical

pregnancy which was confirmed by ultrasonography and decision for laparotomy taken. Bilateral uterine artery ligation done and evacuation completed from abdominal route by hysteroscopy, followed by balloon tamponade of cervix by foley's bulb, removed after 48 hours and patient discharged in satisfactory condition. Histopathological examination of curettings from cervix confirmed the diagnosis of cervical pregnancy.

CASE 3

A 24 years, primigravida presented at 10 weeks amenorrhoea with irregular bleeding per-vaginum. On per-speculum examination, cervix was ballooned up with external os closed confirmed on bimanual examination with uterus bulky, felt above the cervix, and no adnexal mass. USG confirmed the diagnosis of cervical pregnancy, which showed gestation sac with fetal node of 10 mm without fetal cardiac activity in cervix with closed internal os and bulky uterus with empty cavity. On color Doppler, blood flow was seen in the developing placental tissue.

Her Hb was 11 gm% and total and differential leucocyte count, renal and liver function tests were within normal range and serum beta-hCG was 6,716 IU/L. Intramuscular methotrexate 50 mg/m² was administered. The following day, patient continued to have bleeding per-vaginum but her vital signs remained stable. Thereafter, only vaginal spotting was noted. A repeat scan performed after one week revealed smaller sized complex mass in the cervix with reduced Doppler flow. The serum beta-hCG level had also dropped to 3039 IU/L on day 4 and 1152 IU/L on day 7. Patient became asymptomatic, hence discharged. Subsequently patient was followed with serial serum beta-hCG levels till they fell down to 2 IU/L and doppler flow became absent.

DISCUSSION

The common diagnoses entertained for bleeding in early pregnancy are complications of intra-uterine pregnancy,

ectopic pregnancy and gestational trophoblastic disease. Pelvic ultrasonography has become an important investigation in making accurate diagnosis. Paalman and Mc Elin² have described the most accepted clinical definition of cervical pregnancy: (1) Uterine bleeding after amenorrhoea, without cramping pain, (2) Disproportionally enlarged cervix, (3) Products of conception entirely confined within the endocervix and (4) A snug internal os and partially open external os.

All the above factors were present and picked up in our third case before management, intra-operative in second case and missed in first one. The etiology of cervical pregnancy is unclear although several possibilities have been considered. Too rapid transport of the fertilized ovum together with a poorly prepared endometrium for its reception has been alluded to by Burg.³ Previous intrauterine instrumentation, scar, Asherman's syndrome and prior use of IUCD are also linked with cervical pregnancy.^{4,5}

Hung *et al*⁶ found that MTX therapy in the presence of cervical pregnancies with: 1) serum β -hCG levels greater than 10,000 IU/L, 2) a gestational age > 9 weeks amenorrhoea, 3) positive foetal cardiac activity or, 4) a crown-rump length greater than 10mm, were generally associated with higher failure rates. Patient in case III had good prognostic factors. Other conservative measures include intraamniotic injection of methotrexate, local KCL injection, local prostaglandin instillation and foley catheter tamponade.

More radical interventional measures like hysterectomy need to be considered especially where the diagnosis is

delayed and profuse vaginal bleeding is encountered. Saliken and coworkers (1994)⁷ have reported success with selective pre-operative uterine artery embolisation using gelfoam. The conception rate after the successful treatment of cervical pregnancy has generally been low.⁸ Finally the patient should be counseled about the risk of future ectopic pregnancies, second trimester pregnancy losses, and the potential need of subsequent prophylactic cervical cerclage.

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