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Case Report: Conservative management for Cervical ectopic following in vitro fertilization.

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Abstract- Cervical pregnancy is a rare and life threatening type of ectopic pregnancy, it can be as rare as 1:18,000 pregnancies. [1] This paper describes a case of cervical ectopic pregnancy following In vitro fertilisation diagnosed at 8 weeks gestation, treated conservatively.

Conflict of Interest : No conflict of interest is involved in this case report for each of the authors

I. Introduction

A 39 years elderly primigravida with H/o primary infertility for 10 years. She had underwent repeated hysteroscopies - 6 times in 10 yrs. 4 years back hysterolaproscopy had revealed multiple adhesions; endometrial curettings were positive for TB-PCR for which she was treated with ATT for 6 months. 2 years back patient underwent first cycle of IVF – ET with donor egg which failed.

Patient underwent second IVF-ET cycle with two frozen embryos. Scan done at 6+2 weeks – told to be normal. Patient was started on low molecular weight heparin 40mg OD. H/o spotting PV at 6+ 2 weeks gestation. Scan was done which showed irregular intrauterine gestational sac of 6+2weeks with good trophoblastic reaction with no yolk sac. H/o repeat episode of heavy bleeding PV at 7+6 weeks. Scan showed uterus 11.9 x 5.4 x 8.7cm, anteverted, blood clots distending the uterine cavity and measuring 6.9x5x6.2cm (volume 113cc). Gestational sac with a live fetus of 6+1 wks in the posterior lip of the cervix more to the right of the midline. Around the gestational sac significant trophoblastic reaction with flow noted. Yolk sac seen. Patient was given Inj. Methotrexate the same day and a second dose repeated after 1 day. In view of excessive bleeding PV with live cervical ectopic pregnancy patient referred to Bhagwaan Mahaveer Jain hospital for tertiary care. 3 units of packed cell transfused in view of low Hemoglobin. After discussion with the couple and obtaining informed consents patient underwent Scan guided Intrasac instillation of Inj. Methotrexate 40mg . Post procedure fetal asystole noted.

Serial measurements of β- HCG done (Table-1 and Figure-1). Falling levels of β- HCG noted with a shrinking gestational sac on repeat scan (Figure 2 A).

In view of less significant fall in β- HCG third dose of parenteral Inj. Methotrexate(45mg IM stat) given after 17 days. Fourth unit of packed red blood cell transfused. Patient expelled cast per vaginum on 133rd day post IVF (Figure 2B). Post expulsion B-hcg – 3.7 mIU/ml. Scan done normal. Patient established periods one month post expulsion of cast.

Figure 1: Serial β hcg (mIU/ml) levels post IVF after Methotrexate administration

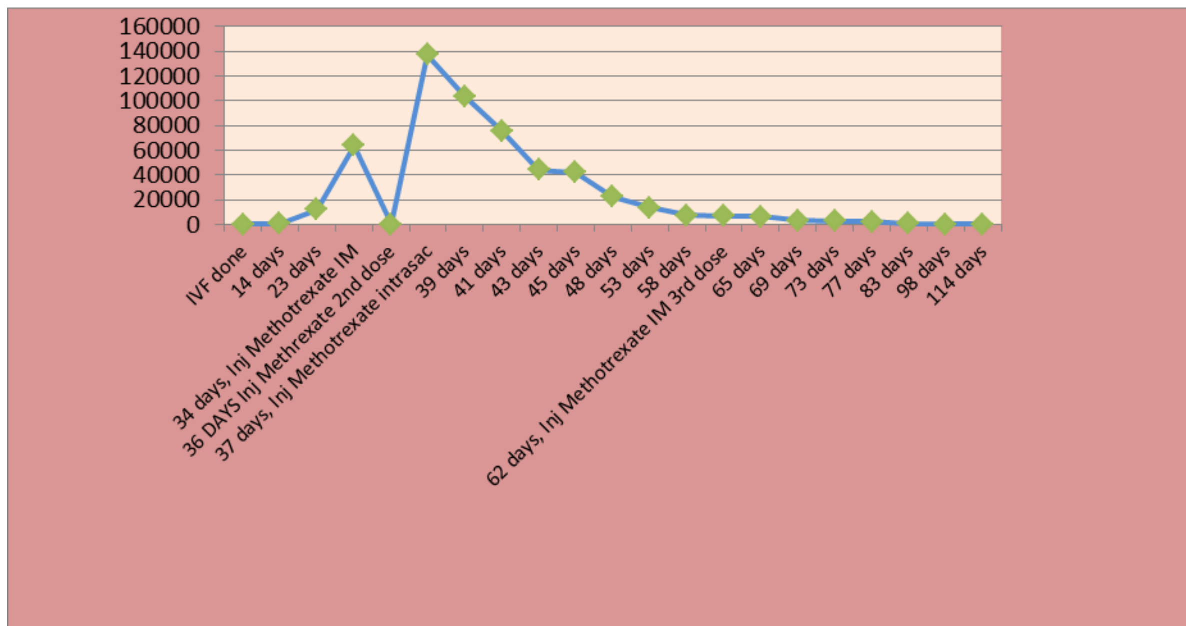
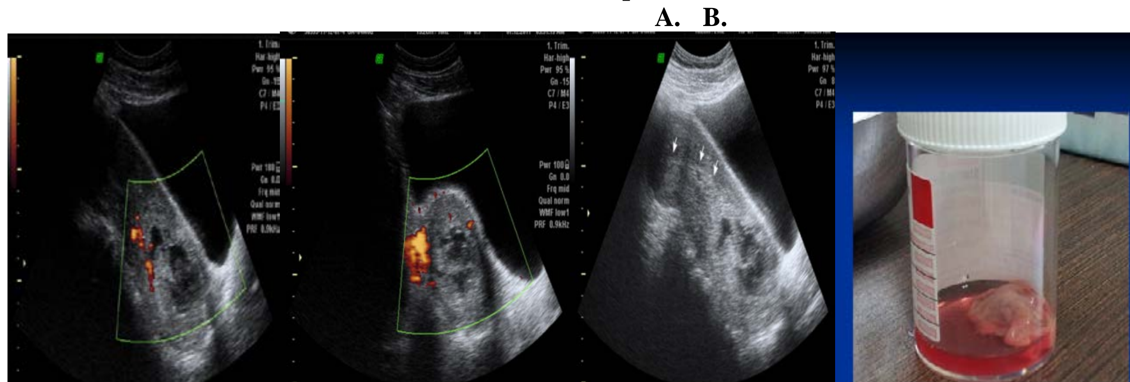


Figure 2 : A. Transabdominal scan post methotrexate therapy- ill defined complex hypoechoic lesion in cervix (3.3x2.5) cms. B. Cervical ectopic cast

A. B.



II. Discussion

The cause of cervical pregnancy is not known; history of surgeries on cervix or uterus such as curettage or cesarean delivery or an unreceptive endometrium. Assisted reproductive technologies have increased its risk; in IVF pregnancies it occurs in 0.1 percent and accounts for 3.7 percent of IVF ectopic gestations.[2]

The most common symptom is profuse painless vaginal bleeding. [2]

Sonography for cervical ectopic pregnancy and is correct in 87.5% of cases. MRI can be considered in unusual or complicated cases.[3] Cervical abortion must be differentiated from cervical ectopic. The 'sliding sign' - gestational sac of the abortus slides against the endocervical canal following gentle pressure by the sonographer and this is not seen in cervical pregnancy. Also closed internal os, well defined round sac with presence of fetal heart beat in cervical ectopic pregnancy help differentiate the two. [1]

Jurkovic et al noted low resistance placental blood flow in cervical ectopic which is not seen in cervical abortion. [1]

Table 2 : Rubin and Mc Elin criteria for cervical ectopic diagnosis :[3]

Sr.No.	Rubin	Mc Elin
1	Cervical glands are opposite to the placental attachment	Period of amenorrhoea followed by uterine bleeding without cramping pain
2	Placental attachment to the cervix is situated below the entrance of the uterine vessels or below the peritoneal reflection of the anterior and posterior surfaces of the uterus	Cervix is soft and enlarged and equal to or larger than the fundus (the hour glass uterus)

3	Fetal elements are absent from the corpus uteri	Products of conception entirely confined within and firmly attached to the endocervix
4		Internal cervical os is closed
5		External os is partially opened

The efficacy of systemic methotrexate administration to be 91% in the treatment of cervical pregnancy.

Combination of Intra-amniotic injection with systemic methotrexate increased the chances of successful treatment. Mechanical disruption of the pregnancy and chemotherapy have been combined with the use of hemostatic methods of tamponade. Traditional curettage, hysteroscopic resection, and ultrasound-guided drainage have been reported as methods of tissue disruption that provide a key aspect to cytoreduction of the ectopic pregnancy. Success rate varies with local injections of various chemotherapeutic agents including methotrexate, etoposide, actinomycin D, and cyclophosphamide.[5]

Pregnancy rates after cervical ectopic treatments are relatively unknown. In a review of 120 published cases of cervical pregnancy, Ushakov et al found 34 pregnancies identified after conservative management. However, there are also reports of cervical incompetence requiring cerclage.[5]

In conclusion early detection is the key factor in conservative treatment of cervical pregnancy.

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