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Full Length Research Article

SUCCESSFUL MANAGEMENT OF A CASE OF CERVICAL ECTOPIC PREGNANCY (COMBINATION METHOD)

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ABSTRACT

Cervical pregnancy is a rare ectopic. A Patient aged 26 years primi gravida attended OBG Department OPD with a USG report of cervical ectopic pregnancy. Two Injections Intramuscular Methotrexate 1 mg/kg body weight, Inj. Folic Acid 0.10 mg/kg body weight (6 mg) was given on alternative days. Even then, the β hcg titres were not declined satisfactorily. Foetal cardiac pulsations were present. Then Inj. KCl, Methotrexate was given intra amniotically. Uterine artery embolization was done to reduce the vascularity in trophoblastic tissue. Suction evacuation was done after injecting vasopressin in to the cervix. Tab. Mesoprostal (800ug) was given per rectally. Two days later, check curettage was done. Subsequently, Uterus was found empty. β hcg titres came to normal after two weeks.

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INTRODUCTION

Ectopic Pregnancy in cervix is very rare and it can be life threatening if early diagnosis and treatment is not done. The incidence is <1% of all ectopic pregnancies (Sweta Singh, 2013). Its aetiology is not clear but the probable causes are prior history of D&C, Caesarean Section, Intra Uterine Device, Chromosomal Abnormalities and IVF procedures. 60% of cervical ectopics are viable. Investigations like Serial Transvaginal Ultrasound Examinations (Song *et al.*, 2009), Colour Doppler, Pulse Wave Doppler Studies and Serum β hcg Titres are required for proper diagnosis. For the management Inj. Methotrexate, Inj. KCl, bilateral uterine artery embolization, local vasopressin injection, cervical stitch and suction evacuation may be required. If bleeding is fatal, some patients may require internal iliac artery ligation or hysterectomy.

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Case Report

A 26 years old primi gravida was referred from a Private Hospital in view of cervical ectopic pregnancy. The Patient was asymptomatic. Her LMP: 11.02.2015. The pregnancy test was positive. A week later vaginal USG was done to confirm the pregnancy. It was confirmed as cervical ectopic pregnancy. Her vitals were normal.

PS: Cervix visualized, OS closed. Vagina healthy.

PV: Uterus retroverted, bulky.

Fornices: Free, no forniceal tenderness.

PR: Supravaginal ballooning of cervix present.

Investigations: HB%: 12.2 g/dl, TC: 10000 cells/cumm, S.creatinine – 0.5 mg/dl. S. Bilirubin – 0.5 mg/dl; Direct: 0.1 mg/dl; Indirect: 0.4 mg/dl; RBS – 118 mg/dl; Platelets – 2.4 lakhs/cumm; DC: N-70, L-24, E-4, M-2, RBC – 4.4 millions; B-T – 2 min 30 sec; CT – 4 min 30 sec. MCH – 27, MCHC – 34%, HIV, HbsAg, VDRL – Non Reactive.

USG: Uterus – 7.7 x 3.5 x 4.5 cm, Endometrium – 16 mm; Gestational Sac – 1.6 cm noted in cervix.

Inj. Folinic Acid given 6 mg IV on alternative days.
Inj. Pot. Chloride (5 mmol/ lt) given on D5.



Gestational Sac With Yolk Sac FHS below internal OS with thick trophoblastic tissue

27.03.2015 – Gestational sac 2.1 x 2 cm

D3 USG: Minimal vascularity
Foetal pole seen; sac size 3.4 cm
Foetal cardiac pulsations were present.

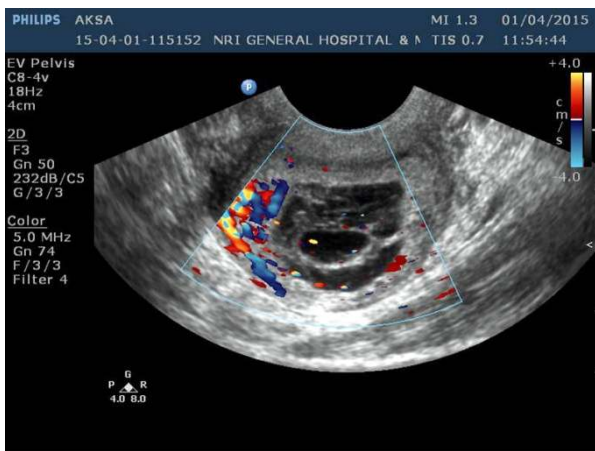
CBP: HB – 11.8 g/dl
PCv – 34%
WBC – 8,500 cells /cumm
ESR – 40 mm/hr
RBC – 4.3 millions, platelet count – 2.4 lakhs

BT – 2 min 30 sec; CT – 4 min 30 sec; MCV – 79; MCH – 27 pg; MCHC – 34; DC-N-7; L-20, E-6; M-4.

Day 7 – Bi-lateral uterine artery embolisation done by Interventional Cardiologist.

After UAE – HB – 12.5 g/dl

02.04.2015 – USG – 48 hrs after UAE – Gestational sac found in cervical canal. Arterial supply absent. But Venous flow was present – by Doppler study.

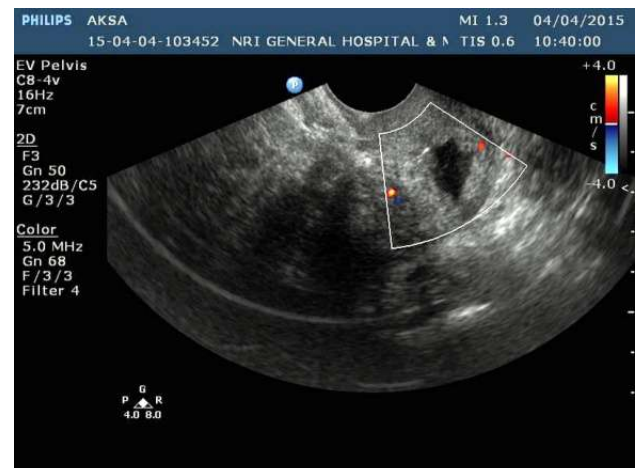


Ring of fire : Vascularity in Trophoblast

Under spinal anesthesia, suction evacuation with No.8 Karman's Canuala was done, products of conception were removed. Foley's Catheter was kept in cervical canal and bulb was distended with 30 CC normal saline to give tamponade effect locally. Tab. Misoprostal (4x200 ug) kept in rectum. The Foley's catheter was removed after two days and there was no bleeding. Check ultrasonography showed some products of conception retained in endocervix. The same was curetted and sent for HPE. Repeat Haemoglobin was 11.8 g/dl. βhcG titre was done. After two weeks βhcG showed normal (0.05 iu/dl). Patient was given broad spectrum antibiotic following the procedure for 5 days.



Needle position at the time Inj Kcl into amniotic sac



TVS : After UAE, Inj Methotrxate no arterial flow, only venous flow by doppler study in trophoblast

Foetal pole, yolk sac present. Fetal cardiac activity present.

Day	Route of Methotrexate Inj.	βhcG
D1	IM – 1mg/kg body = 60 mg	D0 – 98,520.6 mIU/ml
D3	IM – 1mg/kg body weight Inj. Pot.Chlor (5 mmol/lt) intra	D2 – 70,270 mIU/ml
D5	amniotically	D5 – 56,946 mIU/ml
D6	Intra amniotic Inj MTX – 60 mg	

DISCUSSION

Cervical pregnancy is rare and fatal, if diagnosis and treatment are delayed. For proper diagnosis and management serial transvaginal ultrasound and βhcG titres are required. To

conserve the uterus for fertility purpose, conservative treatment with Methotrexate 1mg/kg body wt. and folinic acid intramuscularly on alternate days was given (Kirk *et al.*, 2006 and Kung and Chang, 1999). It is toxic to give more than 3 doses of Methotrexate Injections.

For confirmation of cervical ectopic pregnancy (Rubin's Criteria) –

1. a. Sac should be below the internal OS.
- b. Fetal heart should be present.
- c. Vascular activity in trophoblast area by Color Doppler has shown RING OF FIRE sign.
- d. Supra vaginal ballooning of cervix – felt more clearly by per rectal examination.
- e. Absence of sliding sign of gestational sac.
- f. Cervical tissue may be present in the wall of the sac.

After giving Inj. Methotrexate, Inj KCl, β hcG values were not declined very much, high vascularity was seen in trophoblastic tissue. The success rate with Inj. Methotrexate is 81%. Hence uterine artery embolisation was attempted⁵. After that, arterial supply was absent; however, venous flow was present. Inj. Vasopressin was given locally to reduce venous flow on the day of suction evacuation⁶. Using Karman's canula for SE, we can avoid injuries to genital tract. Advantages of the aforementioned methods are short hospital stay, long follow up is not required and β hcG titres will come to normal within 3 weeks (*With only Inj. Methotrexate or Inj KCl methods β hcG titres decline will take long time nearly 2 or 3 months*). Because of the combination of aforementioned methods, there was no bleeding and the patient recovered within three weeks.

Conclusions

Timely diagnosis and management by combined methods with preoperative UAE will conserve the uterus for future fertility.

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