Cervical Ectopic Pregnancy, Challenging Diagnosis and Treatment; Case Series

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ABSTRACT

Cervical ectopic represents < 1% of all ectopic pregnancies. It's a high-risk pregnancy and could result in life threatening haemorrhage if not timely diagnosed. Diagnosis itself is not an easy task, TVS and color Doppler imaging are important diagnostic tools, early diagnosis leads to early intervention and prevention of complications. Systemic or intra amniotic injection of methotrexate along with foleys ballon tamponade to control haemorrhage are economical options for conservative management. We are presenting an interesting case series of three patients with different treatment options, treated successfully. These patients were presented in Allied Hospital affiliated with Faisalabad Medical University, Faisalabad during 10-year period from 2008-2018. Our first case was $G_4P_1A_1E_1$ with one previous C section, one previous miscarriage and previous ectopic pregnancy presented at 9^{+1} weeks gestation with viable fetus. She was treated with systemic and local intra-amniotic injection of methotrexate. Followup with β hCG discloses successful outcome. Second case was $G_6P_3A_2$ presented in emergency with torrential haemorrhage at 8^{+4} weeks of amenorrhea. Patient was treated by hysterectomy in emergency. Third patient was $G_3P_2A_0$ presented at 6^{+1} weeks of amenorrhea with non-viable fetus, diagnosed on transvaginal scan and β HCG and treated successfully by systemic methotrexate.

Keywords: Cervical ectopic pregnancy (CP), systemic or intra amniotic methotrexate (MTX), Serum beta human chorionic gonadotrophin (β hCG).

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INTRODUCTION

Cervical ectopic preganancy is an uncommon form of ectopic pregnancy with an estimated incidence of 1:18000.[1] Its incidence is rising because of increasing trend of assisted reproductive techniques, other risk factor includes dilatation and curettage, caesarean section, use of intrauterine device and cervical surgery.[2] By the use of transvaginal scan and β hCG its diagnosis becomes easier and conservative management becomes possible. In the past because of diagnostic dilemma patients usually ends up in hysterectomy. Medical management with single or multi dose MTX including systemic or intra amniotic administration with or without hysteroscopic resection later followed by foleys balloon tamponade.[3,4,5] In this case series we present 3 cases of ectopic pregnancies managed with different treatment options successfully.

CASE 1: $G_4P_1A_1E_1$ presented in emergency ward with mild per vaginal bleeding with gestational amenorrhea of 9^{+1} weeks. Her vitals were stable and her previous obstetrics history showed one previous C-Section, previous one incomplete miscarriage followed by dilatation & curettage and previous one tubal ectopic treated by medical management. In current pregnancy transvaginal scan was performed and she was diagnosed as a case of viable cervical ectopic pregnancy with 2cm gestational sac with closed internal os and empty uterine cavity. Her β hCG was 44,997 mIU/ml, treatment options were discussed with patient. We recommended multi dose MTX injection for her management for which she agreed. Her baseline investigations were normal and she was given 1st injection of MTX, on 4th day her β hCG was 43,641mIU/ml with mild per vaginal bleeding associated with mild lower abdominal pain. On 7th day her β hCG became 31,728 mIU/ml and ultrasonography showed nonviable fetus and she had moderate per vaginal bleeding. 2nd MTX injection was then decided and was given intra amniotically later her β hCG fall to 6,802 mIU/ml on day 4 and ultrasonography showed collapsed sac. Gradually her β hCG declined to < 5 mIU/ml after 4 weeks of first MTX injection.

CASE 2: $G_5P_3A_2$ presented in labour ward with critical vitals and severe per vaginal bleeding with clots at a gestational amenorrhea of 8^{+4} weeks with previous 2 caesarean sections and 2 first trimester incomplete miscarriages. Her pregnancy test was positive and she was referred by some GP where she was diagnosed as a case of incomplete miscarriage. While undergoing dilatation & curettage at GP clinic, she started bleeding heavily. Immediately she was then referred to our hospital with vaginal packing. After stabilizing her vitals and blood arrangement, she was shifted in operation theatre after ultrasonography which showed empty uterine cavity and closed internal os with ballooned up cervix showing collapsed gestational sac in the cervix with fetal pole but without cardiac activity. Her hysterectomy was performed and patient remained well afterwards.

CASE 3: $G_3P_2A_0$ presented with mild per vaginal spotting and lower abdomen pain in Gyane OPD with gestational amenorrhea of 6^{+1} weeks. She bought her TVS which shows empty uterine cavity and a small gestational sac with of 10mm with fetal pole in the cervical canal. She was admitted and her β hCG and other baseline investigations were sent which came out to be 4,025 mIU/ml. Single dose MTX injection was chosen as a treatment option for her. On 4th day her β hCG came out to be 900 mIU/ml and on 7th day it became 210 mIU/ml. At the end of 2nd week her β hCG became <15 mIU/ml. Ultrasound confirmed no gestational sac in the cervix.

DISCUSSION

Cervical ectopic pregnancy is extremely rare. Its differential diagnosis includes cervical abortion and scar ectopic pregnancy. Even with advanced diagnostic facilities cervical ectopic remains a life-threatening condition.[6,7] In our first case gestational age was > 9 weeks with positive cardiac activity, literature supports our study in which systemic use of MTX followed by manual vacuum aspiration and foleys tamponade in a viable 9 weeks cervical pregnancy has been reported.[8] Some studies favour intra amniotic KCL used additionally along with systemic MTX[9], where as in our study we used systemic and intra amniotic both route of MTX instead of KCL. Report by Samal S et al, CP with β HCG of 1,03,113 mIU/ml was managed successfully by multidose MTX and intra amniotic KCL followed by suction curettage of cervical canal which supports our study as we also used MTX injection at very high β HCG level. Another study favours use of MTX alone in CP at < 12 wks gestation with viable or non-viable pregnancy has high success rate (> 91%).[11] Junior et al described intra amniotic administration of MTX injection as monotherapy in combination with intra amniotic KCL[12] where as we used only single dose of intra amniotic and systemic MTX in our patient. Moon et al, have described use of Tuohys needle for instillation of local MTX after failure of systemic use of MTX, in our case we used spinal needle for injecting intra amniotic MTX.[13]

Capullo et al, reported in a case series that because of late diagnosis, emergency hysterectomy could not be avoided.[14] Which favours our case as patient end up in hysterectomy because she was misdiagnosed. Diagnosis was confirmed on histopathology. Another study favours that CP was diagnosed while treating intra uterine pregnancy which leads to per vaginal bleeding.[15]

CONCLUSION

It is important to be aware of different variants of ectopic pregnancy and their appearances on ultrasonography as identification may enable conservative and safe medical treatment.

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AUTHORSHIP CONTRIBUTION

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