Case Report

Cervical Ectopic Pregnancy (CEP) – A Case Report

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ABSTRACT

Ectopic pregnancy is the implantation of fertilized ovum at an abdominal site. Cervical ectopic pregnancy is an extremely rare form of pregnancy where the implantation of the egg occurs. It usually presents with uncontrolled vaginal haemorrhage during the first trimester of pregnancy. It can be rarely found in the second trimester of pregnancy. The early diagnosis using ultrasonography methods likely transvaginal sonography and βhcg. In this case, 30 years old patient came to the hospital after taking MTP twice in a week and local examination showed a normal uterus and enlarged cervix and an antenatal scan revealed the gestational sac with a foetal pole and good cardiac activity within the lower uterine segment. Due to heavy vaginal bleeding for 2 weeks emergency laparotomy with bilateral tubectomy has been performed. Here we concluded that cervical pregnancy is a rare condition that can be fatal if not recognised and treated promptly. Chemotherapy administration may be the first line of therapy, but there may be a risk of excessive haemorrhage which may require a more radical approach done instantly.

Keywords: Ectopic Pregnancy, pregnancy, chemotherapy, haemorrhage.

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INTRODUCTION

Cervical ectopic pregnancy (CEP) is an ectopic pregnancy in which the embryo implants in the endocervix of the uterus. With an incidence of 1–18 per 20 000 pregnancies, cervical ectopic pregnancy (CEP) is the second most prevalent type of ectopic pregnancy after abdominal ectopic pregnancy. [1] It's associated with a high rate of morbidity, especially if there's a delay in diagnosis or treatment because it can lead to copious haemorrhage, which can lead to hysterectomy, compromising the woman's reproductive potential, or even death. The main symptoms of ectopic pregnancy are amenorrhea and uterine haemorrhage, which may be accompanied by pelvic pain. The diagnosis of this illness requires a thorough gynaecological ultrasound.[2] There are several therapy options. When the gestational age is less than 9 weeks and there is no foetal heart activity, conservative care is the best option. It covers single-dose or multiple-dose regimens of systemic methotrexate therapy.[3]

CASE REPORT

A 30-year-old female gravida 6 with a history of one vaginal delivery, two caesarean sections at full term, and two abortions presented in a Tertiary care hospital with vaginal bleeding. The patient's history showed the use of MTP (Misoprostol +Mifepristone) kit twice a week prior to admission and chronic illnesses which is not present in the patient's family history. An antenatal Ultrasound scan showed a single intrauterine gestational sac with a foetus seen in the cervical canal with a good foetal heart rate. A repeat Antenatal ultrasound scan after one day showed a gestational sac with foetal pole and good cardiac activity within the lower uterine segment (Cervix).

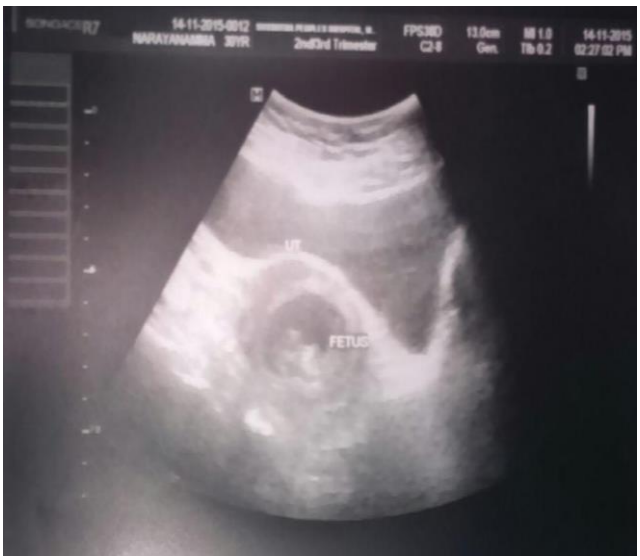

Figure 1: Ultrasound scan showing gestational sac with foetus in the Cervix

The estimated gestational age was 7 weeks 2 days. Local examination of vagina showed uterus with normal size with an enlarged cervix. Treatment was initiated with Intravenous fluids (IVF), Antibiotics like Inj. Cefotaxime 1g/IV/BD and Inj. Metronidazole 100ml/IV/TID along with

Inj. Ranitidine 50mg/IV/BD and Inj. Metoclopramide. As the patient presented with increased vaginal bleeding for two weeks, emergency laparotomy with bilateral tubectomy had to be performed. The patient received one unit of packed cells before and three units of packed cells after the procedure. After surgery, she was treated with antibiotics, Inj. Cefotaxime 1g/IV/BD and Inj. Metronidazole 100ml/IV/TID and analgesic Inj. Tramadol 5omg/IM/BD till the third day. From the fourth day, she was given a soft diet and was treated with Tab. Cefotaxime 300mg/PO/BD, Tab. Metronidazole 400mg/PO/TID, Tab. Ranitidine 150mg/PO/BD and Tab. Diclofenac 50mg/PO/BD. Then Diclofenac was added to therapy till the fifth day. On the sixth day, the patient developed a headache on the frontal ad occipital areas which was managed using Tab. Paracetamol 500mg/PO/TID. Post-operatively, she recovered well and was discharged on the 11th day. On discharge, the patient had been prescribed vitamin and mineral supplements.

DISCUSSION

CEP is an uncommon pregnancy condition that has a high risk of maternal morbidity and mortality. The size of the foetus and its positioning within the endocervical canal makes imaging of the cervix and its relationship to the foetal head particularly difficult at more advanced gestation, making ultrasound of CEP prone to misinterpretation. [4] Preferably, ultrasonography CEP can be detected early and accurately with transvaginal sonography (TVS) and βHCG estimation. In a healthy pregnancy, the level of βHCG in the blood doubles in 48 hours. βHCG levels does not increase at this pace in abnormal pregnancies, such as ectopic pregnancy. [5]

Palman and McElin suggested the following diagnostic criteria: 1) Following a period of amenorrhoea, uterine bleeding without cramping discomfort; 2) A soft, expanded cervix equal to or greater than the fundus (hourglass look of the uterus); 3) Products of conception fully within and firmly linked to the endocervical canal; 4) A closed internal os; 5) A slightly opened external os.[6] Early diagnosis, ideally before 12 weeks, low βhCG levels, and the absence of heart activity are all variables that favour conservative medical treatment. There are many medical options available including systemic or local methotrexate injections, KCL, local vasopressin injections, local or systemic prostaglandin injections, systemic mifepristone, and intrauterine irrigation with 3.5 per cent H2O2. [7] Tamponade, a decrease of blood supply, removal of trophoblastic tissue, intra-amniotic feticide, and systemic chemotherapy are the five treatment options. Treatments from more than one category are employed in the majority of reported cases of cervical pregnancy. Both doctor as well as patient were strongly in favour of terminating the pregnancy from beginning itself.[8] Patients with viable or nonviable cervical pregnancies at 12 weeks' gestation who are treated with methotrexate treatment have a high success rate for uterine preservation [6]. In spite of our consideration of antimetabolites, such as methotrexate, studies have shown that the results are unsatisfactory if βhCG serum levels exceed 10000IU/L.[7] According to Thomas et al., mechanical termination of the EP by curettage, systemic or local use of MTX, and haemostasis are three fundamental principles for the therapy of CEP.

Table 1: From the above studies it can be concluded that Therapy with Methotrexate can be used as a conservative treatment before 12 weeks of gestation and also to preserve fertility. But in a few cases treatment failures had been occurred due to heavy life-threatening Hemorrhage.

S. No	Article & Author	Treatment	Outcome
1.	Cervical Pregnancy-A Case Report. Chrisi C et.al	Chemotherapy (Methotrexate) 1st line of option	May develop excessive life-threatening Haemorrhage
2.	Diagnosis and management of cervical ectopic pregnancy-Report of three cases. Pandher DK et.al	MTX therapy at hCG Levels > 10,000 IU/L and GA>9 weeks with fetal cardiac activity	Associated with higher failure rates
3.	Cervical ectopic pregnancy with massive bleeding: A case report. Tomov S et.al	Conservative treatment with Methotrexate administered systemically or locally	Achieves good results before 12 weeks of Gestational age
4.	Ectopic pregnancy in the cervix: A Case Report. Mohebbi NR et.al	Treatment with Methotrexate	Unsatisfactory results if serum beta hCG is more than 10,000 IU/L
5.	Cervical pregnancy: A dilemma for diagnosis and management. Lele P et.al	Combined medical (MTX) and surgical treatment	Allows preservation of fertility and reduction in morbidity
6.	Cervical ectopic pregnancy: Case Report. Banu LP et.al	Newer medical (single low dose MTX in 20-50mg+3 doses of prostaglandin infusion 500µgm infusion) and surgical procedures	Preservation of fertility after CEP
7.	Cervical pregnancy-A conservative stepwise approach. Yitzbak M et.al	A stepwise conservative approach with MTX first by IM route	Best choice for treatment of cervical pregnancies

Haemostasis can be performed in a variety of ways, including local vasopressin and cerclage injections, cervical-stay sutures, Foley balloon or ligation tamponade, or embolization of the descending branches of the uterine arteries. Surgery may be associated with significant haemorrhage in cervical pregnancies because they are well vascularized. Blood transfusions, postoperative intensive-care unit therapy, or even a hysterectomy may be required for women who have uncontrollable bleeding. To execute an arterial embolization in the context of uncontrolled bleeding in women who want to keep their fertility and avoid hysterectomy, an angiographic catheter inserted into the uterine arteries may be required. Cervical cerclage before the evacuation of the pregnancy is another way to decrease haemorrhage during resection of the cervical pregnancy. To properly occlude the blood arteries supplying the cervix, the cerclage should be put near to the ostium internum uteri of the cervix. Because these veins are engorged during pregnancy, they are more vulnerable to excessive bleeding. Alternatively, the uterine veins' descending branches might be ligated vaginally. Because of the significant danger of life-threatening bleeding in second-and third-trimester cervical pregnancy, primary hysterectomy is still indicated.[9]

CONCLUSION

Cervical pregnancy is a rare condition that can be life-threatening if not diagnosed and treated early. Chemotherapy administration may be the first line of therapy, but there may be a risk of excessive haemorrhage which may require a more radical approach done instantly. The sooner the condition is recognized, the better the expected outcome, since chemotherapy alone can be adequate for treatment at early stages.

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