Conservative management of cervical pregnancy: A case report

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Abstract :
Cervical pregnancy is an extremely rare condition with potential grave consequences if not diagnosed and treated early enough. Conservative treatment using folinic acid antagonist and methotrexate, constitutes a breakthrough in the management of this unusual but potentially life-threatening complication of pregnancy. We present a case of early cervical ectopic pregnancy with a history of two previous caesarean sections that was successfully treated with conservative management.

Keywords : *Cervical pregnancy, medical treatment, methotrexate*

Introduction

Vaginal bleeding in the first trimester of pregnancy is a common presentation in emergency care facilities. About 25% of all gestations present with vaginal spotting or frank bleeding in the first few weeks of pregnancy. Half of these progress to miscarriage or abortion. The acuity of these symptoms may vary from occasional spotting to severe haemorrhage associated with cramping and abdominal pain. The important causes of first-trimester bleeding are spontaneous abortion, ectopic pregnancy and gestational trophoblastic disease[1]. Cervical ectopic pregnancy is extremely rare, accounting for less than 1% of all ectopic pregnancies[2]. Its etiology is still unclear. However, there are reports of association with chromosomal abnormalities as well as a prior history of procedures that damage the endometrial lining such as caesarean section, intrauterine device or in vitro fertilization[3]. There are increasing numbers of reports of successful conservative treatment of cervical pregnancy by using folinic acid antagonist together with methotrexate. This constitutes a breakthrough in the management of this unusual but potentially life-threatening complication of pregnancy[2].

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Case Details

A 30 year old female, Gravida 3, Para 2, with 2 living issues; presented with a history of continuous bleeding per vaginum of one and a half month duration. She had history of undergoing medical termination of pregnancy of 6 weeks gestation, initially with pill containing Mifepristone and Misoprostol and later surgical procedure of dilation and evacuation carried out at a private clinic, for completion of abortion. However after the procedure she had excessive bleeding per vaginum. she was administered 2 units of blood and referred to a tertiary care Medical Institute of a nearby town. There she received 2 more units of blood and an attempt was made to stop the bleeding with injectable tranexamic acid, but the patient continued to have profuse bleeding and was referred in an anaemic state to our Institute.

On general examination she had tachycardia. Her abdomen was soft and nontender on palpation. On vaginal per speculum examination, bleeding was present with clots in the vagina. On bimanual examination, uterus size was commensurate with 6 weeks gestation. It was soft with tender cervical movements. Cervix was bulky to feel. Urine tested for human chorionic gonadotropin was found to be positive and ultrasonography report revealed cervical and lower uterine segment haematoma measuring 3.2 x 1.7 x 0.7

cm and 1.9 ml in volume (Fig. 1, 2 and 3). These features prompted suspicion of cervical pregancy. The gestational sac was probably disturbed due to effects of curettage. Serum beta HCG levels was 97.64 mIU/ml. Two more units of compatible blood transfusion were given. With due precautions patient was administered injection methotrexate intramuscularly (1 mg/kg body weight), in 2 divided dosed 12 hours apart. Beta HCG was repeated after 7 days. The level this time was 4.62 mIU/ml. Repeat ultrasound examination revealed complete resolution of the haematoma (Figure 4 and 5). Following the treatment, patient improved significantly. Her bleeding stopped, she also became symptomatically better. After one month the beta HCG levels were within the normal range and there was complete resolution of cervical pregnancy.

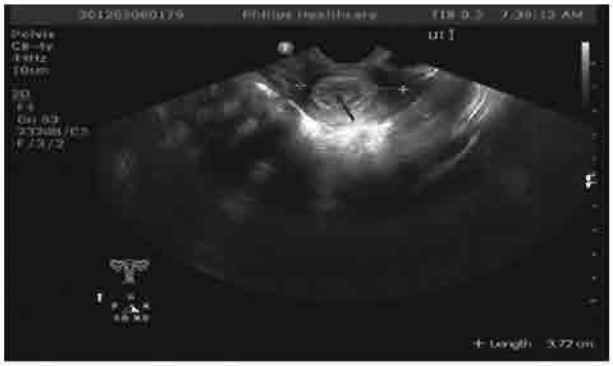

Fig. 1- Ultrasonography of the pelvis showing cervix with a well defined lesion (marked with blue arrow) which was reported as haematoma.

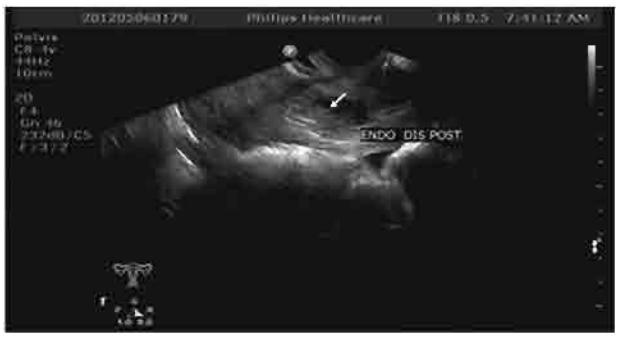

Fig. 2- Ultrasonography of pelvis showing the mass in the cervix and lower uterine canal (marked with white arrow) pushing the endometrium lining posteriorly.

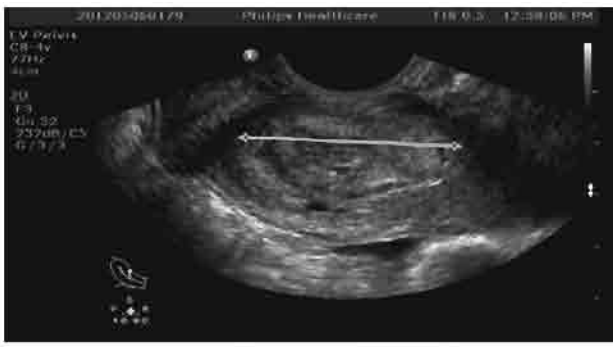

Fig. 3- Enlarged image of ultrasonography of uterine cervix showing the well defined lesion probably a disturbed cervical pregnancy (marked with orange arrow)

Discussion :

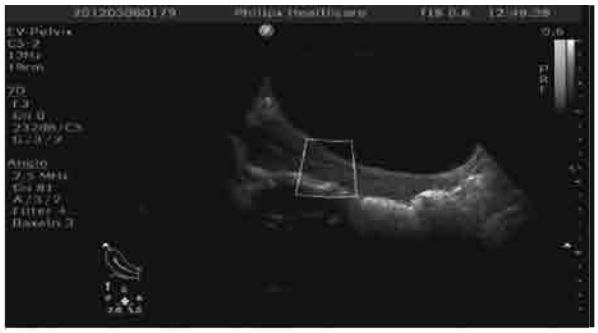

Fig. 4- Post methotrexate ultrasonography of pelvis showing normal uterus and cervix. The haematoma like lesion has resolved (marked with box)

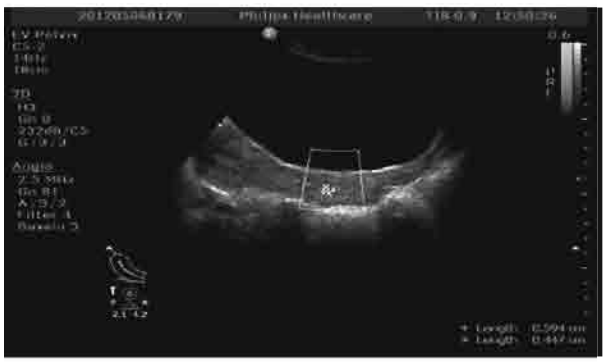

Fig. 5- Post methotrexate ultrasound of the pelvis showing resolved cervical pregnancy. (Area marked with box)

Uterine Cervical pregnancy is a rare and perilous form of ectopic pregnancy associated with increased morbidity and mortality. It is defined as the implantation of conceptus below the level of the internal os. Cervical pregnancies have an incidence of approximately 1:9000 and account for 0.1% of all ectopic pregnancies.[3] Although the exact etiology of cervical pregnancy is still uncertain and may be multifactorial, intrauterine adhesions, caesarean sections, fibroids, previous

therapeutic abortions and in vitro fertilization (IVF) have all been associated with cervical implantation[4]. Cervical pregnancy occurs in 0.1% of IVF pregnancies and accounts for 3.7% of IVF ectopic gestations[3]. Cervical scarring from previous curettage or cervical surgery seems to play a role in its pathogenesis as well[3].

To avert maternal mortality, physicians must not only have a heightened awareness of, but also must acquire skills for diagnosing this life-threatening condition. Cervical pregnancy carries a significant risk of hemorrhage, with the possible need for a hysterectomy to control the bleeding. Vaginal bleeding, which is often profuse, is the most common presenting symptom[5]. Lower abdominal pain or cramps, occur in less than one-third of women. In one series, with an average gestational age of 9 weeks, the cervix was enlarged, globular, or distended in 86% of cases, whereas the uterus was enlarged in 54%[5].

Treatment choices may be divided into five categories: Tamponade, reduction of blood supply, excision of trophoblastic tissue, intra-amniotic feticide and systemic chemotherapy[6]. In most reported cases of cervical pregnancy, treatment from more than one category are used[6]. In the present case the patient opted for medical termination of pregnancy and the resultant surgical intervention lead to acute blood loss. The suspicion of a cervical pregnancy, lead to the option of a medical treatment with a positive outcome. Any further surgical procedure would have probably lead to a radical procedure such as hysterectomy if it became necessary save the patient's life. Methotrexate chemotherapy of patients with either viable or nonviable cervical pregnancies of less than 12 weeks gestation carries a high success rate of cure as well as preservation of the uterus[7].

Conclusion

Cervical pregnancy is a rare condition that can be life threatening if not diagnosed and treated early during the course of pregnancy. Increasing trend of caesarean sections and using other invasive methods such as intrauterine device and in vitro fertilization seems to contribute to its higher prevalence. This requires that health providers who are involved in obstetric care include this entity in the differential diagnosis of women presenting with bleeding and cramping early in pregnancy. An early diagnosis and consultation with skilled obstetrician for interventional/conservative management is necessary for preserving patient's fertility without significant complications.

References

1. Paspulati RM, Bhatt S, Nour S. Sonographic evaluation of first trimester bleeding. *Radiol Clin North Am,* 2004; 42: 297–314.
2. Marcovici I, Rosenzweig BA, Brill AI, Khan M, Scommegna A. Cervical pregnancy: case reports and a current literature review. *Obstet Gynecol Survey*, 1994; 49(1): 49-55.
3. Ushakov FB, Elchalal U, Aceman PJ, Schenker JG. Cervical pregnancy: past and future. *Obstet Gynecol Survey*, 1997; 52(1): 45-59.
4. Jurkovic D, Hacket E, Campbell S. Diagnosis and treatment of early cervical pregnancy. *Ultrasound Obstet Gynecol*, 1996; 8: 373-80.
5. Barnhart KT, Gracia CR, Reindl B, Wheeler JE. Usefulness of pipelle endometrial biopsy in the diagnosis of women at risk for ectopic pregnancy. Am J Obstet Gynecol 2003; 188: 906-9.
6. Leeman LM, Wendland CL. Cervical ectopic pregnancy: diagnosis with endovaginal ultrasound examination and successful treatment with methotrexate. *Archives of Fam Med*, 2000; 9(1): 72-77.
7. Kung KT, Chang SY. Efficacy of methotrexate treatment in viable and nonviable cervical pregnancies. Am J Obstet Gynecol, 1999; 181(6): 1438-44.