Successful Treatment of a Cervical Molar Pregnancy: Combined Medical and Surgical Methods

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Background: Cervical Ectopic Pregnancy (CEP) is a rare kind of ectopic pregnancy particularly if being Hydatidiform mole. Molar ectopic pregnancy treatment is challenging especially with intention to preserve the fertility. Here we report our challenge to preserve fertility and treatment of a partial molar cervical pregnancy.

Case Presentation: A 37-year-old primigravid lady presented with vaginal bleeding with stable vital signs. β HCG level was disproportionately high (i.e. 113 000 mIU/mL at 7 weeks of gestation according to CRL). Ultrasonography was suggestive of partial hydatidiform mole due to thickened hyper vascular multi cystic placenta with hydropic changes and with fetal heart activity. We considered treatment as less invasive approach with fetal reduction (i.e. KCL injection) and chemotherapy followed by suction curettage with additional cervical Foley catheter inflation. Uterine was preserved with no need for transfusion. Patient was followed by weekly β HCG measurements to undetectable levels and then monthly for 6 months. Pathology was confirmatory for the diagnosis of hydatidiform mole.

Principal Conclusion: Managing cervical ectopic pregnancy in a primigravid patient is challenging to simultaneously save patient’s life and childbearing ability. Combined chemotherapy and surgical treatments could be considered promising.

Introduction

Ectopic pregnancy is a critical diagnosis in any woman presenting with vaginal bleeding and lower abdominal pain. Cervical Ectopic Pregnancy (CEP) is a rare kind of ectopic pregnancy in which implantation occurs in the endocervical canal rather than in the uterus and includes less than 1% of all ectopic pregnancies [1,2]. It happens mostly in smokers, IVF pregnancies, and in those with exposure to DES, history of previous cesarean surgery, and history of pelvic inflammatory disease [2]. Under-diagnosis can be life threatening and should be concisely considered. Hydatidiform Mole (HM) is a premalignant type of gestational trophoblastic disease that happens from inappropriate fetal and placental development. Partial HM develops after fertilization of ovum by either two sperm or one diploid sperm causing a triploid mole (69XXX, 69XXY, or 69XYY). In such instances, fetal cardiac activity can be detected. Partial or complete mole affects approximately one in 500-1000 pregnancies [3]. Though, ectopic pregnancy and molar pregnancy are not rare and occur approximately twenty in every 1000 and one in every 500 to 1000 pregnancies, respectively, the combination of them (i.e. an ectopic HM) is uncommon. Reports regarding molar ectopic pregnancy are sparse [4]. Here, we want to present a rare case of cervical pregnancy, which was molar pregnancy and demonstrate our therapeutic strategy to preserve her fertility.
Case Presentation

On 21 April 2019, a 37-year-old primigravid lady admitted to the Imam Khomeini Hospital Complex, Tehran University of Medical Sciences, Iran. She was complaining of vaginal bleeding which was continued after her last menstrual period. On physical examination, she had stable vital signs (pulse rate: 90/min, BP: 110/70 mmHg, Respiratory rate: 21/min, and oral temperature: 37.1°C). Systemic examination illustrated no unusual findings. During gynecologic examination, external os was open with scant bleeding. β HCG was positive and its titration upon admission was 113000 mIU/mL; Hemoglobin was 10.8 g/dL and liver and renal function tests and thyroid-stimulating hormone were within normal limits. Ultrasonography revealed an enlarged uterus and distended cervix with gestational sac 7 weeks based on CRL and fetus was detected with fetal heart activity. Pregnancy product was surrounded by Placenta circuit (Figure 1). Ultrasonography examination detected a fetus with fetal heart activity (hence complete mole is excluded) in addition to thickened multi cystic placenta with hydropic changes and hyper vascularization in Doppler mode which in addition of high β HCG level (113000 mIU/mL) was suggestive of partial hydatidiform mole.

Figure 1: Pregnancy product was surrounded by Placenta circuit.
Patient was admitted with suspicious cervical molar pregnancy. We planned to save uterus employing fetal reduction and chemotherapy in this primigravid lady. Consequently firstly, we tried to do fetal reduction with injection of 3cc KCl 15% under ultrasonographic guide. Chemotherapy was scheduled for multi dose injection of methotrexate: 1 mg/kg on Days 1, 3, 5, 7 in addition to folic acid 0.1 mg/kg on Days 2, 4, 6, 8. Although, after the fourth dose of methotrexate, β HCG titer increased to 154800, but in color Doppler ultrasonography, the placental vascularity had been decreased. Then we contented patient about possible complications and proceeded to execute suction curettage. All the pregnancy products were removed and to prevent excessive bleeding a Foley catheter was inflated in the cervix. Patient did not need blood transfusion. Eventually, β HCG level dropped under 15000 upon operation. Patient was discharged with advice for barrier contraception, considering she was hemodynamically stable and had trace vaginal bleeding. Pathology examination indicated presence of a typical trophoblastic proliferation, decidualized tissue and degenerative villi. The findings were reported compatible with hydatidiform mole, recommending serial βHCG serologic tests. Serial serum B-hCG gradually decreased through weekly β HCG measurement to undetectable levels within a span of 6 weeks and we followed her for 6 months later.

Discussion

There is no consensus on the treatment strategy for cervical pregnancy and particularly cervical molar pregnancy. In the current report, we provide our successful experience in the treatment of the condition intending to preserve the fertility. Any cervical pregnancy should be terminated; surgical interventions could be delayed in stable patients. Our method including fetal reduction and chemotherapy could have been curative, but not sufficient in delayed in stable patients. Our method including fetal reduction and chemotherapy in this primigravid lady. Consequently firstly, we tried to do fetal reduction with injection of 3cc KCl 15% under ultrasonographic guide. Chemotherapy was scheduled for multi dose injection of methotrexate: 1 mg/kg on Days 1, 3, 5, 7 in addition to folic acid 0.1 mg/kg on Days 2, 4, 6, 8. Although, after the fourth dose of methotrexate, β HCG titer increased to 154800, but in color Doppler ultrasonography, the placental vascularity had been decreased. Then we contented patient about possible complications and proceeded to execute suction curettage. All the pregnancy products were removed and to prevent excessive bleeding a Foley catheter was inflated in the cervix. Patient did not need blood transfusion. Eventually, β HCG level dropped under 15000 upon operation. Patient was discharged with advice for barrier contraception, considering she was hemodynamically stable and had trace vaginal bleeding. Pathology examination indicated presence of a typical trophoblastic proliferation, decidualized tissue and degenerative villi. The findings were reported compatible with hydatidiform mole, recommending serial βHCG serologic tests. Serial serum B-hCG gradually decreased through weekly β HCG measurement to undetectable levels within a span of 6 weeks and we followed her for 6 months later.

These findings remarkably increased the possibility of partial HM. Cervical pregnancy should be terminated as was performed for the patient. We believe that the findings of pathology, although could be subject to uncertainty due to prior chemotherapy, confirms HM was the underlying cause in this patient. Nevertheless, ploidy study, we did not perform, is the ultimate and only certain method to confirm the etiology of the pathology. In a multiparous patient, Houssine Boufetta et al. reported a complete mole in a cervical pregnancy which was treated with hysterectomy and chemotherapy [9]. In a similar report by Keitaroh Takeda et al. [2] cervical ectopic molar pregnancy in a multiparous patient was managed with Uterine artery embolization and chemotherapy [2]. Our patient had no child and saving childbearing ability was prioritized for us and we had to change our approach to save uterus if possible. We considered a non-invasive approach with fetal reduction and chemotherapy which followed by suction-curettage.

Conclusion

Ectopic partial molar pregnancy as a rare diagnosis, needs high clinical suspicion for diagnosis. High serum β HCG levels and confirmatory findings in ultrasonography increase the suspicion level. Surely, pathological examination is essential to reach final diagnosis. Preservation of fertility is possible when required employing fetal reduction and chemotherapy.

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Conflicts of Interest

There are no conflicts of interest.

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