

CASE REPORTS

Cervical Ectopic Pregnancy

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INTRODUCTION

Cervical pregnancy is a rare form of ectopic pregnancy with an estimated incidence varying from one in 2500 to one in 18000 pregnancies.¹⁻³ The incidence is increasing because of assisted reproduction, especially after *in vitro* fertilization and embryo transfer. Prior dilatation and curettage also contributes significantly. According to Pisarska and associates, it precedes 70% of the cases of cervical pregnancy. Other predisposing factors for the development of cervical pregnancy include anatomic anomalies (fibroids, intrauterine synchia), previous instrumentation of the endocervical canal and use of intrauterine devices. In the past, hysterectomy was often the only choice available because of associated severe hemorrhage. With the use of sonography now, it is possible to diagnose early at a stage when it can be managed conservatively and thus fertility can be preserved.

CASE REPORT

A thirty-two-year-old woman presented to us as a case of primary infertility who conceived after ICSI with ET (value of beta-HCG fourteen days after embryo transfer was 502 IU/l). At five weeks gestational age, a transvaginal scan done to locate gestational sac showed a cystic mass in the posterior wall of cervical canal, just distal to the internal os measuring 5-8 mm. Diagnosis of cervical pregnancy was suspected and she was advised to follow-up in a week. Repeat TVS done after four days confirmed that it was viable cervical ectopic pregnancy of about 5-6 weeks. As patient desired future fertility, a conservative treatment was planned. She was admitted and was given methotrexate 50 mg IVI (1 mg/kg body weight) every other day, followed by calcium folinate rescue 24 hrs after each injection (0.1 mg/kg body weight). Effect of therapy was monitored by serum β -HCG measurements and transvaginal

scans. Although she was given three doses of systemically methotrexate, her β -HCG titre increased (45927 IUS/l) in comparison to day 0 (3296 I U/l) and USG scan revealed a live pregnancy of 8.2 weeks. The decision was then taken to do ultrasound-guided intra-amniotic instillation of methotrexate. It was done successfully under IV sedation and no cardiac activity was seen in postprocedure scan. Patient condition was stable and she was discharged with advice to follow-up in OPD. Two weeks later, she presented to us with complaint of continuous vaginal bleeding, despite declining β -HCG levels, (3878 IU/l). On sonography a nonviable cervical pregnancy of 7.4 weeks was present and there was only minimal regression of fetal pole. She was admitted again and bilateral uterine arteries embolization was done under general sedation. Her vital signs remained stable and no vaginal bleeding was noted after the procedure. She was discharged home in good condition the following day. Follow-up scan a week later revealed a normal cervix. Color Doppler done after three months of discharge showed a normal flow in both uterine arteries and she resumed regular menstrual cycles 3 months after the procedure. Frozen-Thaw embryo transfer was done 6 months after the procedure but sadly, patient did not conceive.

DISCUSSION

Over the past two decades, vast changes have occurred in virtually all aspects of infertility management. IVF and ICSI with embryo transfer have become a routine technique now. Though it creates a great hope to infertile couples, it also carries an increased risk of some grave complications, as cervical ectopic pregnancy. The diagnosis and treatment of cervical pregnancy has changed dramatically in last fifteen years with widespread use of transvaginal sonography and systemic and local methotrexate treatment. According to Stovall et al⁴ methotrexate therapy in ectopic pregnancies should be continued

until there is a decrease of > 15% in two consecutive daily β -HCG titers and the large majority of patients require no more than four doses of the drug. In our case, systemic administration of methotrexate failed to induce a decrease of β -HCG serum concentration and even after three doses of therapy fetal cardiac activity persisted. In a meta-analysis by Kung et al⁵ methotrexate administration was found to be 91% effective in the treatment of cervical ectopic pregnancy. Hung et al⁶ also found the similar results in another meta-analysis. Intra-amniotic injection in combination with systemic methotrexate appeared to increase the chance of successful treatment. Patients with cervical pregnancy are at high-risk for developing severe, life-threatening hemorrhage. Use of selective UAE to reduce the bleeding in these cases has been reported repeatedly. Cosin et al⁷ reported using UAE successfully to control bleeding after local injection of methotrexate. Trambert et al⁸ reported a series of eight patients who were treated successfully with UAE followed by intracervical or systemic methotrexate. The favorable resolution of our case shows that thus treatment option is feasible for cervical pregnancies. We can conclude that cervical pregnancies diagnosed at an early gestational age can be treated safely with intra-amniotic methotrexate administration. In cases of persistent or heavy, vaginal bleeding selective UAE can be used effectively and fertility can be preserved.

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