

LETTERS

Conservative treatment of a 7 week cervical ectopic pregnancy after intra-uterine insemination

Dear editor,

The incidence of cervical ectopic pregnancy is very low ranging from 0.005% to 0.1%. Women with such pathology are at high risk of severe haemorrhage, which may lead to hysterectomy. With current widespread use of ultrasound diagnosis, the appearance of a gestational sac in the cervical canal can be identified early.

A 29th year old, nulliparus woman of Greek origin with BMI 34 kg/m² presented with amenorrhea of 7 weeks and 3 days. She has been offered an intra-uterine insemination due to her husband's oligo-astheno-zoospermia. She was referred to our department due to a brief episode of loss of consciousness that happened one day before, during which she presented with paleness, a pulse rate of 90 beats per minute and blood pressure of 115/70 mmHg. Her hemoglobin level was 10.5 gr/dl. The transvaginal ultrasonography revealed a gestational sac sized 29.2 x 11.1 mm with a single viable fetus, with a crown-rump length (CRL) of 6 mm, implanted in the upper cervical canal. The uterine cavity revealed a thick endometrium without a gestational sac and the initial serum β -chorionic gonadotrophin (HCG) level was 13,420 mIU/ml. 50mg of Methotrexate were administered intramuscularly to the patient. Two days after the initiation of chemotherapy, the patient experienced vaginal bleeding with clots, hemoglobin levels dropped from 10.5 to 7.5 gr/dl and she was transfused with two units of packed red blood cells. Seven days after the initiation of treatment, an ultrasound scan revealed a decrease in size of the gestational sac to 20 mm, with no more fetal heart activity present. The serum β -chorionic gonadotrophin level was 7,642 mIU/ml and a second dose of 50 mg of methotrexate was administered intramuscularly. Subsequent monitoring showed a steady decline of β -hCG values, which dropped below detectable limits after one month. Six months later, the patient became pregnant again. She delivered vaginally, a healthy, term, female neonate, without complications.

Medical treatment with methotrexate, which is a folic acid antagonist, was introduced in 1982 as a novel therapy in ectopic pregnancies¹. The goal of methotrexate administration is to selectively kill the cytotrophoblastic tissue of ectopic pregnancies while preserving fertility. The single dose protocol describes the administration of 50 mg/m² of methotrexate given by intramuscular injection without the use of leucovorin. The reported success rate of systemic methotrexate administration differs among various authors. Presence of fetal cardiac activity, CRL greater than 10mm, gestational age greater than 9 weeks and initial serum levels of HCG greater than 10,000 mIU/ml have been considered as poor prognostic factors with high failure rates^{2,3}. Many authors have proposed alternative, more invasive treatments such as intra-amniotic instillation of potassium chloride solution and systemic injection of methotrexate⁴, intramniotic methotrexate injection through the cervical canal⁵ or even embolization of uterine arteries⁶. However, our suggestion is that it may be worthwhile to start treatment with methotrexate alone in such a rare case of ectopic pregnancy and, if chemotherapy alone fails to treat the condition, other more invasive techniques to be used in order to avoid hysterectomy and preserve the patient's fertility.

In conclusion, due to the fact that cervical ectopic pregnancy is rare and there are no randomized controlled trials on treatment options, methotrexate therapy remains the gold standard in initial treatment. The sooner the condition is recognised, the better the expected outcome, since chemotherapy alone can be adequate for treatment at early stages.

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Conflict of interest

None Declared.