Interstitial ectopic pregnancy managed with local methotrexate

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Accepted 28 September 2015

DESCRIPTION

A 38-year-old woman, 7 weeks and 4 days pregnant as assessed by her last menstrual period, presented to our emergency department with non-painful vaginal bleeding for 2 days. She was a gravida 2, para 1 with a history of caesarean section 12 years before. Her serum β human chorionic gonadotropin level (β -HCG) was 2776 mIU/mL. Other laboratory results, including full blood count and liver function tests, were normal. Ultrasonography showed an empty uterine cavity and a gestational sac implanted adjacent to the right lateral aspect of the uterine cavity, surrounded by a thin myometrial layer (figure 1), containing a live embryo with bradycardia. These findings confirmed the presence of a right interstitial ectopic pregnancy. The patient was given a local injection of 25 mg of methotrexate plus 2 mEq of potassium chloride transabdominally, under ultrasound guidance (figure 2). Potassium chloride was used to arrest the embryonic heart action.¹ The patient tolerated the procedure well and no side effects were reported. Serum β -HCG peaked at 3363 mIU/mL on the third day and then started declining. On follow-up 2 months later, the patient was asymptomatic, her β -HCG level was negative and ultrasound resolution was achieved (figure 3).

Interstitial pregnancy is a rare occurrence and remains one of the most difficult ectopic pregnancies to identify. Ultrasound criteria for the diagnosis

Figure 2 Transabdominal imaging scan showing a needle (arrow head) inserted into the gestational sac for local administration of methotrexate plus potassium chloride.

Figure 3 Three-dimensional ultrasound imaging showing normal appearance of the uterus on follow-up.

Figure 1 Three-dimensional ultrasound imaging demonstrating the proximal interstitial segment of the tube (arrow) joining the uterine cavity to the ectopic pregnancy, described as an 'interstitial line sign'.

are an empty uterine cavity, a gestational sac located eccentrically and distant from the lateral wall of the uterine cavity, a thin myometrial layer surrounding the gestational sac and the presence of an 'interstitial line sign'.^{1 2} Current treatment options include minimally invasive surgery and non-surgical approaches such as expectant management, systemic methotrexate or local injection.^{1 3}

Learning points

- ▶ Ultrasound imaging enables early diagnosis of interstitial ectopic pregnancy but strict diagnostic criteria must be used.
- ▶ Local injection of methotrexate is a safe and effective treatment for interstitial ectopic pregnancy.

To cite: Mações A, Fernandes S, Rodrigues C, et al. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2015-212563

Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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