Pregnancy of unknown location

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1 Pregnancy of unknown location occurs in 10% of pregnant patients undergoing transvaginal ultrasound in the first trimester

Patients presenting with a positive pregnancy test and vaginal bleeding or pelvic pain routinely undergo transvaginal ultrasound as the standard diagnostic assessment. Pregnancy of unknown location is a classification that describes patients with a positive beta-human chorionic gonadotropin (β-hCG) test without ultrasound findings of intra- or extrauterine pregnancy.[1–3] The pregnancy of unknown location may be a viable or nonviable intrauterine pregnancy or ectopic pregnancy, or may resolve without its location ever being identified.[1–3]

2 Gynecology consultation is indicated if history and physical examination at any encounter suggest ectopic pregnancy

Ectopic pregnancy occurs in 8%–14% of pregnancies of unknown location, compared with 2% in all pregnancies,[3] but risk of rupture is low (2–3/1000 pregnant people).[4] Asymptomatic patients should receive written information outlining symptoms that should prompt medical attention; an information sheet is provided in Appendix 1 (available at www.cmaj.ca/lookup/doi/10.1503/cmaj.200142/tab-related-content).[5] Persistent or worsening pain, signs and symptoms of hemodynamic compromise or hemoperitoneum require urgent evaluation.[1,5]

3 All patients with pregnancy of unknown location require a repeat β-hCG test 48 hours after initial testing

The ratio between 2 β-hCG measurements 48 hours apart stratifies risk of ectopic pregnancy.[1,2,5] A ratio greater than 1.63 suggests an intrauterine pregnancy, and patients should have a repeat transvaginal ultrasound in 1 week. A ratio of less than 0.5 suggests a failing pregnancy of unknown location that will resolve without intervention. All that is required is a serum β-hCG test in 14 days to ensure pregnancy resolution, and repeat transvaginal ultrasound is not indicated. Ratios between 0.5 and 1.63 are red flags, carrying a risk of ectopic pregnancy greater than 5%. Close follow-up in 48 hours with repeat transvaginal ultrasound and β-hCG is essential.[2] A management algorithm with thresholds, adapted from the National Institute for Health and Care Excellence in combination with management suggested by Tommy's National Centre for Miscarriage Research, is presented in Appendix 2 (available at www.cmaj.ca/lookup/doi/10.1503/cmaj.200142/tab-related-content).[2,5]

4 Empiric definitive management of pregnancy of unknown location is rarely warranted

Empiric management with methotrexate or laparoscopy before follow-up evaluation may result in harm to an intrauterine pregnancy, or unnecessary laparoscopy in pregnancies that will ultimately resolve without intervention.[1,2]

5 Expectant management of pregnancy of unknown location is safe, provided there is consistent follow-up

All patients, including those with low-risk pregnancies of unknown location, must be followed by the same health care team until the β-hCG test becomes negative or the pregnancy location is identified.[1–3]

References

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