For women with abdominal pain or vaginal bleeding during early pregnancy, patient history and clinical examination alone are insufficient to indicate or eliminate the possibility of ectopic pregnancy, while transvaginal sonography appears to be the single best diagnostic method for evaluating suspected ectopic pregnancy, according to an analysis of previous studies reported in the April 24 issue of *JAMA*.

The rapid identification and accurate diagnosis of women who may have an ectopic pregnancy is critically important for reducing the maternal illness and death associated with this condition. Ectopic pregnancy is the leading cause of first-trimester pregnancy-related death, responsible for up to 6 percent of maternal mortality during early gestation, according to background information in the article. "Fewer than half of the women with an ectopic pregnancy have the classically described symptoms of abdominal pain and vaginal bleeding. In fact, these symptoms are more likely to indicate miscarriage."

John R. Crochet, M.D., of the Center of Reproductive Medicine, Webster, Texas and colleagues conducted a study to systematically review the accuracy and precision of the patient history, clinical examination, readily available laboratory values, and sonography in the diagnosis of ectopic pregnancy in women with abdominal pain or vaginal bleeding during early pregnancy. The researchers conducted a search of the medical literature and identified 14 studies with 12,101 patients the met the criteria for inclusion in the analysis.

The authors found that presence of an adnexal (structures near the uterus, such as the ovaries and the Fallopian tubes) mass in the absence of an intrauterine pregnancy on transvaginal sonography, and the physical examination findings of cervical motion tenderness, an adnexal mass, and adnexal tenderness all increase the likelihood of ectopic pregnancy. "A lack of adnexal abnormalities on transvaginal sonography decreases the likelihood of ectopic pregnancy. Existing studies do not establish a single serum human chorionic gonadotropin [hCG; a hormone] level that is diagnostic of ectopic pregnancy."

"Women with abdominal pain or vaginal bleeding during early pregnancy may have an ectopic pregnancy. This systematic review of the literature and meta-analysis confirms that the patient history and clinical examination alone are insufficient to indicate or eliminate the possibility of ectopic pregnancy. In a hemodynamically stable patient, the appropriate evaluation includes transvaginal sonography and quantitative (serial) serum hCG testing. Patients with signs and symptoms of excessive blood loss or hemodynamic collapse should immediately have gynecological evaluation."


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