

ULTRASOUND IN CHRONIC ECTOPIC PREGNANCY

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Chronic ectopic pregnancy is an uncommon form of tubal pregnancy with atypical pain and minimal symptoms in which there is a gradual disintegration of the tubal wall with slow and/or repeated episodes of hemorrhage leading to the formation of a pelvic mass.¹ The incidence of chronic ectopic pregnancy is 20.3% of all ectopic pregnancies.² Some patients may not give any history of amenorrhea,³ an unmarried girl denies sexual activity due to moral issues and social stigmal,⁴ but fluid collections are seen in hepatorenal space and cul-de-sac (Pouch of Douglas).

The incidence of ectopic pregnancy has been rising over the past several decades.⁵ Most current algorithms for the evaluation of the ectopic pregnancy include the use of ultrasound and Doppler flow studies with quantitative beta human chorionic gonadotropin (hCG) as needed. With the need to incorporate ultrasound into the standard evaluation of the symptomatic first-trimester patient with bleeding or pain, pelvic ultrasound for intrauterine pregnancy has become a natural application in emergency ultrasound. The presence of an intrauterine pregnancy decreases the risk of a concurrent ectopic pregnancy to 1 in 30000 for a low-risk patient and 1 in 5000 for a high-risk patient.⁶ In some ectopic pregnancies, the echogenic ring may look like the ovarian corpus luteum cyst.⁷ Although the number of ectopic pregnancies has increased, the mortality from ectopic pregnancies has decreased 90% since 1979. In 1978, Maklad and Wright⁸ wrote the first report of B-mode gray scale ultrasonography for ectopic pregnancy evaluation. Cacciatore et al⁹ found that a gestational sac was always seen by the time the β -hCG level reached 1000 IU (second International Preparation Standard), and a yolk sac should always be seen by the time the mean sac diameter (MSD) reaches 10 mm (many authorities use 8 mm as the current cutoff) on transvaginal ultrasonography.

A chronic ectopic pregnancy is manifested sonographically by an extrauterine complex mass in the adnexae and cul-de sac along with a slightly enlarged uterus with no evidence of an intrauterine pregnancy. The adnexal mass may also be associated with abdominal or pelvic fluid and obliteration of normal anatomical structures.¹⁰ On color Doppler, the complex adnexal mass is characterized by external vascularisation and arteriovenous shunting but without internal blood flow.¹¹ Without the use of color Doppler, 2% to 16% of ectopic gestations may be overlooked.^{12,13}

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