

Ultrasound Detection of a Molar Pregnancy in the Emergency Department

Amin Abdi, MD
Shannon Stacy, MD
Thomas Mailhot, MD
Phillips Perera, MD

Los Angeles County + University of Southern California Medical Center, Department
of Emergency Medicine, Los Angeles, California

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CASE

A 32 year-old female presented to the emergency department (ED) with complaints of mild vaginal spotting accompanied by uterine cramping. She was referred to the ED for an “abnormal pregnancy.” She was a G1P0 and her last menstrual period was 7 weeks 5 days prior. Physical examination demonstrated a well appearing female with normal vital signs. Speculum exam showed a normal appearing cervix, without active bleeding or cervical discharge. On bimanual exam, the cervical os was closed and there was no uterine or adnexal tenderness. Laboratory testing was significant for an elevated serum beta-hCG of 138,596. Bedside emergency ultrasound (EUS) was then performed and demonstrated multiple grape-like clusters within the uterus (Video). No definitive intrauterine pregnancy was detected. A radiologist performed ultrasound was then ordered and confirmed the diagnosis of a molar pregnancy.

DISCUSSION

Hydatidiform mole is part of a spectrum of gestational trophoblastic disease, which involves the abnormal fertilization of maternal ovum by spermatozoa that can range from a benign to an invasive condition. The hydatidiform mole can be partial (69 XXX or XXY, containing fetal tissue), or complete (46 XX or XY, both derived from paternal chromosomes with a lack of fetal tissue).¹ Molar pregnancy is more common in extremes of reproductive age.²

Vaginal bleeding tends to be the most common symptom of a molar pregnancy. The most common physical exam finding of a molar pregnancy is a uterine size that is greater than expected for gestational age.³ Quantitative beta-hCG levels higher than 100,000 mIU/mL should raise suspicion for a molar pregnancy. However, molar pregnancy with normal beta-hCG levels can exist.^{3,4,5}

Ultrasound is the standard imaging modality for identifying molar pregnancy. Classically, a ‘snowstorm pattern’ has been described, resulting from the presence of a complex vesicular

intrauterine mass containing many ‘grape-like’ cysts. Ultrasound evaluation of the adnexa can also reveal theca lutein cysts, due to ovarian stimulation by abnormally elevated beta-hCG levels.⁶

Work up of a molar pregnancy includes obtaining a chest radiograph, a complete blood count, liver panel, thyroid function tests, coagulation studies, blood type and urinalysis.^{3,6,7} The obstetrics and gynecology service should be routinely consulted for a molar pregnancy. In this case, the patient was admitted to this service and emergent suction dilatation and curettage was performed. The operative report noted “cystic heterogeneous sanguineous material, consistent with molar pregnancy”. The pathology report confirmed “villi with histological features suggestive of complete hydatidiform mole”.

This case demonstrates the utility of bedside EUS in the evaluation of the early pregnant patient presenting to the ED with vaginal bleeding. While molar pregnancy is a relatively uncommon condition, emergency physicians should be aware of the clinical and ultrasound features of this disease in order to make a timely diagnosis and to provide the appropriate treatment.

Video. Ultrasound of a molar pregnancy with long axis view and short axis view.

Address for Correspondence: Thomas Mailhot, LAC+USC, Department of Emergency Medicine, 1200 N. State Street, Los Angeles, CA 90033. Email: tmallhot@gmail.com.

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