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# INVASIVE MOLAR PREGNANCY IN BICORNUATE UTERUS: THE UNUSUAL PRESENTATION

Obstetrics & Gynaecology

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## ABSTRACT

Gestational trophoblastic disease (GTD) consists of a spectrum of both benign and malignant entities with different biological behaviour and imaging features being invasive molar pregnancy one of them. Early diagnosis of GTD is important for the prompt and successful management while preserving fertility of the patient. A multifactorial approach is needed for initial diagnosis of GTD which is based on clinical features, serial quantitative human chorionic gonadotropin (β-hCG) titres, and imaging findings. Ultrasonography is the imaging modality of choice for initial diagnosis of complete hydatidiform mole and follow up for local recurrence after treatment whereas MRI helps to delineate the complete extent of GTN with myometrial invasion. I report a case of invasive molar pregnancy in a female with underlying previously undiagnosed bicornuate uterus.The aim to report this case is to sensitize the obstetricians & the radiologists for this unique presentation, early diagnosis and management of this condition.

## KEYWORDS

Gestational trophoblastic disease (GTD), molar, invasive mole, bicornuate.

## INTRODUCTION

The term gestational trophoblastic disease (GTD) encompasses both benign and malignant entities with variable biological behaviour and imaging features. This includes hydatidiform mole, invasive mole, choriocarcinoma, placental site trophoblastic tumor and epithelioid trophoblastic tumor (1). Excluding the hydatidiform and invasive mole, rest all entities are referred to as gestational trophoblastic neoplasia (GTN) with metastatic potential and may be fatal if untreated. The hydatidiform mole is further of two types i.e, complete and partial mole. I report a case of invasive mole in a female with underlying uterine anomaly.

### Case History

A 30years old married female patient presented to the Department of Gynecology for laproscopic sterilization. The urine pregnancy test was performed which came out to be positive. So, pelvic sonography was advised to rule out the pregnancy. She had amenorrhoea for 2 months with one episode of bleeding per vaginum. There was no significant medical history in the past.

### Imaging features

On sonography there was single intra - uterine gestational sac with single fetal pole visualised (fig 1). It was corresponding to period of gestation (POG) of 8 weeks 2 days with no cardiac activity. So the diagnosis of early intrauterine pregnancy failure was made and suction evacuation was done however no parts of conception were found. The beta –HCG level was rising & measured 2650.2 mIU/mL which after 2days was further raised to 3490.6 mIU/mL. So, a review sonographic scan was done after 1 week of previous scan to rule out any ectopic pregnancy. There was found to be two uterine cavities with myometrial tissue in between. The right uterine cavity was showing a heterogenous lesion with cystic areas in between and loss of endo-myometrial definition (fig 2). There was fluid in the left uterine cavity. So, the possibility of bicornuate uterus with molar pregnancy in the right uterine cavity was kept and MRI pelvis was done. On MRI there was a bicornuate uterus with the right cornua showing a heterogenous lesion with multiple cystic areas in between and myometrial invasion (fig 3a & 3b). Whereas, the left cornua showed hemorrhagic products likely due to the post suction evacuation of left cornua as discussed earlier which revealed no products of conception. Multiple dilated vessels were seen in the pelvis. The hysterectomy of the patient was done. Histopathology revealed the case of invasive molar pregnancy.

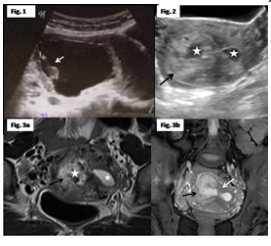

Fig 1 shows sonographic image of early intrauterine pregnancy with visualised fetal pole (arrow) at 8weeks 2days. Fig 2 is the sonographic image & fig 3a is the T2WI axial section showing two uterine cavities (star) and heterogenous mass in the right uterine cavity with loss of endo-myometrial differentiation at places ( black arrow) suggestive of myometrial invasion. Fig 3b is the post contrast coronal MR image showing two uterine cavities with intervening myometrial tissue (white arrow) and avidly enhancing mass in right uterine cavity with myometrial invasion (black arrow).

## DISCUSSION

Compete & partial molar pregnancy is followed by Invasive mole or choriocarcinoma in 15%–20% and less than 5% of cases respectively (2). Invasive mole is the most common form of persistent GTD that occurs due to abnormal proliferation of placental trophoblast. It is characterized by the presence of edematous chorionic villi with abnormal trophoblastic proliferation that invades into the myometrium of the uterus or to adjacent structures such as the vagina, vulva, broad ligament, and can also invade into the uterine vessels (3). It is important to distinguish between invasive mole and choriocarcinoma, as the former has a more favourable outcome. Clinically the patient with invasive mole presents as vaginal bleeding, an enlarged uterus and high urinary or serum beta-HCG level. Usually there is history of prior evacuation of a molar pregnancy and the interval from an antecedent molar pregnancy is usually less than six months. However, choriocarcinoma can occur after a hydatiform mole or even after a normal pregnancy, with an interval of more than six months which may extend for about ten years. The beta-hCG levels are much higher in choriocarcinoma than in invasive mole (4). Ultrasound is the first line modality in aiding in diagnosis of suspected GTD (5). B-mode ultrasound is useful in detection of the abnormal uterine masses. Sonographically, an invasive hydatidiform mole, a placental site trophoblastic tumor, and choriocarcinoma typically exhibit a heterogenous, hyperechoic, solid mass with cystic vascular spaces, located within the myometrium (6), (7). Color Doppler imaging helps in the assessment of angiogenesis and neovascularization which are characteristics of these tumors, seen as prominent blood flow signals in various directions suggestive of arterial and venous flow (8). Doppler velocimetric findings in patients with invasive moles, placental site trophoblastic tumors and choriocarcinoma appear similar in that they all may show low-impedance arterial flow and high velocity (4). Bilateral enlarged ovaries due to theca lutein cysts may also be seen (4).

The MR imaging appearance of GTN is nonspecific, and differentiation between the various types of GTN is difficult similarly the accurate differentiation between GTN and benign processes such as retained products of conception is likewise difficult. MR imaging features of GTN include a sharply marginated or ill-defined mass which is usually isointense on T1-weighted images and hyperintense on T2-weighted images, relative to the normal myometrium showing avid enhancement after intravenous administration of gadolinium

contrast material & is seen centred within the myometrium that distorts or displaces the junctional zone. The areas of increased signal intensity on T1-weighted images may be due to hemorrhage. There are numerous prominent vessels typically seen within the myometrium surrounding the tumor due to increased vascularity (9,10). MR imaging is superior to ultrasonography in evaluation of extent of the tumour. High suspicion should be kept for early diagnosis of the disease. Therefore, early and prompt diagnosis may help in the conservative management of molar pregnancy and preserving the fertility of the patient.

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