



## Partial Mole versus Hydropic Abortus: A Report of Two Cases

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### **Authors' contributions**

This work was carried out in collaboration among all authors. Author KK designed and produced majority of the manuscript. Authors KK, AG, RZ and NK were involved in the management of both cases. Author RZ was involved in the drafting of manuscript. Author JC critically analyzed the manuscript. Author AS is the histopathologist who examined the specimens and provided the images. All authors read and approved the final manuscript.

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Case Study

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### **ABSTRACT**

Molar and non-molar gestation are different entities and their differentiation is crucial. We report one case of non-molar placenta/ hydropic abortus and one case of huge partial molar gestation.

**Keywords:** *Partial mole; hydropic abortus.*

### **1. INTRODUCTION**

Gestational trophoblastic disease (GTD) is a heterogenous group of interrelated lesions that occurs due to abnormal proliferation of placental trophoblasts. GTD can be benign or malignant. Hydatidiform mole (complete and partial) is a

comparatively frequent event following abortion or term pregnancy and is associated with a significant risk of developing persistent GTD or gestational trophoblastic neoplasia (GTN). Therefore, a regular follow-up with  $\beta$ -hcg levels is necessary for timely diagnosis. On the contrary, hydropic abortion or non-molar

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placenta is a completely distinctive entity and has no risk of development of GTN. Hence, follow up is not required in hydropic abortion. Hydropic degeneration is a placental change seen commonly in failed/failing pregnancy. Histologically molar gestation and hydropic abortion differentiation are critical [1].

## 2. CASE DESCRIPTION

### 2.1 Case 1

A 24-year-old G3P1L1A1 at 20+3 weeks' gestation referred to our hospital in view of suspected molar pregnancy. Her uterine height was corresponding to 18 weeks, fetal parts were not felt and fetal heart sound was not localized on hand held doppler. Ultrasound abdomen showed an 8.3x7.1x2.7cm anechoic sac in the endometrial cavity possibly gestational sac, with 39x11mm lobulated echogenic content seen within sac possibly placental tissue. Further imaging was ordered in view of inconclusive ultrasound report. MRI pelvis was suggestive of an empty gestational sac (14x10x8cm) with a low lying placenta covering internal os.  $\beta$ -hcg came out to be 37,950 mIU/ml.

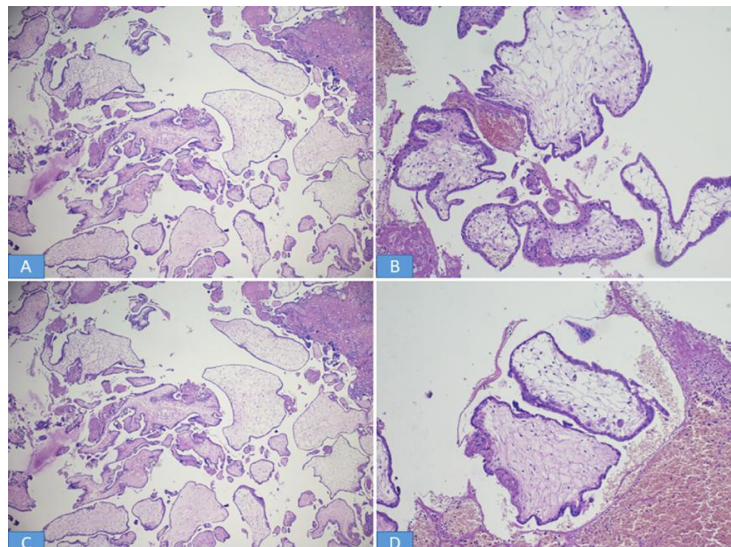
In view of non-viable gestation, medical termination of pregnancy was planned. Induction was done by tab misoprostol 400 mcg vaginally

every 4 hours. Product of conception was expelled after 3 doses of misoprostol. No fetal parts were appreciated in the expelled products of conception. The final histopathological (HPE) examination was suggestive of Hydropic abortus (Fig. 1).

### 2.2 Case 2

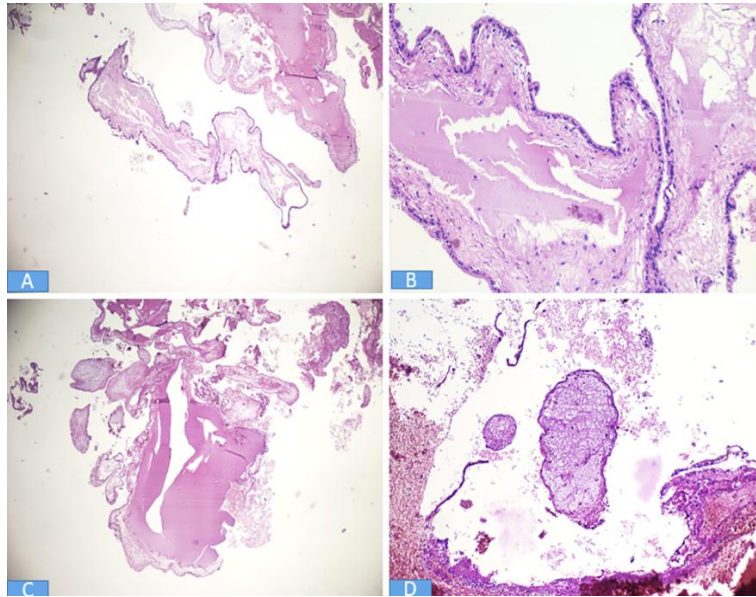
A 30-year-old G4P3L3 with 4 months of amenorrhea presented with vaginal bleeding for 2 days. On examination, her general condition was fair, pallor was present and uterine height was corresponding to 26-28weeks, fetal parts were not felt and fetal heart sound could not be localized. A gentle vaginal examination revealed open cervical os with boggy tissue felt through os. Pelvic USG revealed 18x20 cm mass in endometrial cavity with degenerative changes, no snowstorm appearance, and bilateral theca lutein cysts. Laboratory results showed anemia (Hb 5.8g/dl), corrected with adequate blood transfusion. Her  $\beta$ -hcg value was 38,453 mIU/ml. The patient spontaneously expelled a fleshy mass (15x15cm), which was followed by suction and evacuation, and check curettage. HPE of the mass was suggestive of partial mole (Fig. 2). Follow-up  $\beta$ -hcg after 48 hours was 2,270 mIU/ml and 800 mIU/ml on 7th day.

Consent for publication was obtained from both the patients.



**Fig. 1. Hydropic abortus**

A) Section shows chorionic villi with mild variation in size with regular lining by trophoblastic cells. No hyperplasia or cistern formation is noted; B) Section showing minimally enlarged villi with complete trophoblastic lining; C&D) Section shows villi with loss of vasculature, minimal pleomorphism; D) shows a symmetrical enlargement of villi with no trophoblastic hyperplasia



**Fig. 2. Partial mole**

*(A) Section shows abnormally enlarged villi with distorted shape; B) Section shows Cistern formation trophoblastic hyperplasia is minimal; C) Section shows multiple villi of variable size; D) Villi show absence of vasculature with areas of hemorrhage*

### 3. DISCUSSION

Partial mole typically presents in first trimester with features of missed abortion. Diagnosis depends upon clinical presentation, examination, USG, and serum  $\beta$ -hcg levels. In our cases, the final diagnosis of molar and non-molar placenta was made on HPE. Though, hydropic abortion and molar pregnancy could be differentiated on the basis of morphologic features, still atypical trophoblast proliferation and hydropic swelling in cases of early hydropic abortion may be misleading. Similarly, hydropic changes and cystic formation of placental villi in cases of spontaneous abortion might be confused with complete mole.

Hydropic abortion carries 50% of genetic material from the mother. Immunostaining holds a significant role in diagnosis. Flow cytometry and cytogenetic karyotyping may also be useful in the analysis of products of conception but has few limitations i.e. require fresh tissue, expensive, more time consuming, and technically more cumbersome [2]. P57 (paternally imprinted but maternally expressed) is a very useful marker to differentiate hydropic abortion and partial mole P57 is always present in mesenchyme and cytotrophoblast in hydropic abortion while it may present or absent in partial mole and always negative in complete mole [1]. Ki-67

immunostains differ significantly between the molar and non-molar placentas (high in molar vs low in non-molar placenta) [3]. Furthermore, the combination of Ki-67 with p57KIP2 immunostains will accurately differentiate between the two entities (high expression of p57KIP2 with high Ki-67 in partial mole vs. high expression of p57KIP2 with low Ki-67 in hydropic abortion) [3].

The management of both conditions is surgical evacuation of pregnancy. Post evacuation follow-up with b-hcg levels and contraception counseling is critical. In case of hydropic abortion, post evacuation follow-up is not required.

### 4. CONCLUSION

The differentiation between the molar and non-molar placenta is crucial as the clinical implication of both the entities varies. Follow up is must in partial mole to rule out GTN while no follow up is required in hydropic abortion as there is no risk of developing GTN.

### CONSENT AND ETHICAL APPROVAL

As per university standard guideline participant consent and ethical approval has been collected and preserved by the authors.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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