


Molar Pregnancy with Co-Existing Viable Fetus Delivered Preterm at 24 Weeks Gestation: A Case Report

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Introduction and Importance: It is unusual and challenging to have a molar pregnancy and a viable fetus at the same time. Bleeding per vagina, anemia, hyperemesis gravidarum, hypertension, thyrotoxicosis, and uterine enlargement disproportionate to uterine age are common clinical presentations that should alert the clinician to this uncommon illness. Pregnancy of a hydatidiform mole with a coexistent live fetus in most cases is a complete molar pregnancy. Partial molar pregnancy with fetus is rare and almost always ends in miscarriage due to triploid fetus.

Case Presentation: In this case study, we present a 19-year-old woman who presented with acute vaginal bleeding and pelvic discomfort. Transabdominal ultrasound revealed fetal heart rate and identified the fetus at 24 weeks gestation. A large heterogeneous and complex cystic mass was found in the fundus, which was diagnosed as an abnormal placenta with a strong suspicion of molar pregnancy. The cervix was dilated by 4 cm at the time of hospital admission and four hours later, she gave birth to a healthy female fetus. The placenta emerged along with the membrane and abundant grape-like cystic tissue.

Clinical Discussion: A case study showed a coexisting live fetus that was 24 weeks gestational age and had a partial hydatidiform mole, along with severe vaginal bleeding and uterine contraction. A partial mole was identified through histology analysis of the placenta.

Conclusion: Maternal b-HCG levels fell to undetectable levels one month after birth without treatment. She was doing well and a follow-up six months later revealed no evidence of retained tissue or recurrence.

Keywords: molar pregnancy, preterm delivery, prenatal diagnosis, patient, vaginal bleeding

Background

The term gestational trophoblastic disease (GTD) is used to describe a class of tumors characterized by aberrant trophoblast growth.¹

Human chorionic gonadotropin (hCG), produced by the trophoblast, must be measured in serum for the diagnosis, treatment, and monitoring of GTD.

Histologically, GTD is differentiated between non-molar Trophoblastic malignant neoplasms, which lack villi, and hydatidiform moles, which are characterized by the presence of villi.¹

The revised World Health Organization classification of prenatal trophoblastic disease now includes hydatidiform mole, which comprises complete mole, partial mole, and invasive mole. The second category consists of Trophoblastic tumor-like lesions, which also include placental site nodules and excessive placental site reactions. Trophoblastic tumors are a third category that comprises choriocarcinoma, placental site trophoblastic tumors (PSTT), and epithelioid trophoblastic tumors.²

A partial mole forms when one or two sperm fertilize a normal egg because the resulting reduplicated sperm results in a triploid or tetraploid karyotype in the developing baby. A partial molar pregnancy is abnormal and usually ends in miscarriage when an embryo either grows partially or not at all. The most prevalent type of gestational trophoblastic disease (GTD) is called a hydatidiform mole (HM) which is a group of cysts that develop inside the uterus.

Partial molar pregnancy is characterized by frequent vaginal bleeding in the first trimester of pregnancy, other symptoms include nausea and high blood pressure.

A partial molar pregnancy can be diagnosed via an ultrasound that shows an enlarged uterine with a cystic complex mass.^{2,3}

Case Presentation

A 19-year-old woman (Gravida2, Para1) arrived at our hospital's delivery and labor unit with significant vaginal bleeding and uterine contractions. There was no documented medical history for the patient. When being examined, the patient appeared healthy. The patient's temperature was 35.4°C, oxygen saturation was 98%, her heart rate was 92 beats per minute, her blood pressure was 100/60 mm Hg, and her respiratory rate was 16 beats per minute. Trans abdominal ultrasound revealed fetus heart activity in a fetus at 24 weeks gestation; however, a large, heterogeneous, complex cystic mass was seen on the fundus, which was identified as an abnormal placenta with strong suspicion of molar tissue.

A pelvic examination was performed and seen a 4-cm cervical dilation. On admission, the hemoglobin level was 9 mg/dL, and another laboratory test was all normal. She delivered a alive female fetus within 4 hours after admission. The placenta came out with the membrane and a lot of grape-like cystic within 20 minutes after delivery [Figure 1].

The mother's vital signs were completely normal and stable.

The newborn weigh was 800 grams. Apgar scores were 4. The baby was referred to neonatal intensive care, but she died within 5 hours after delivery.

The histopathology examination of the placenta was diagnosed as a partial mole. The patient was follow-up weekly for 2 months, and laboratory testing showed a b-HCG level of 0 mIU/mL after those time.

Discussion and Conclusion

A molar pregnancy, often referred to as a hydatidiform mole, is a manifestation of a genetically unusual conception. Fetoplacental defects and placental villous trophoblast hyperplasia arise because the genetic makeup is entirely paternally acquired. The classification of a molar pregnancy depends on histological characteristics and genetic anomalies, and they can be divided into two groups: complete moles and partial moles.⁴

The embryo either grows partially or not at all in partial molar pregnancies, which usually result in miscarriages. Twin pregnancies with one fetus and a coexisting mole, which were formerly uncommon, are becoming increasingly prevalent,



Figure 1 Placenta with grape like material.

possibly due to the rise in ovulation induction. For every 22,000–100,000 pregnancies, there is one hydatidiform mole pregnancy; most of these pregnancies involve complete hydatidiform moles (CHM) with a fetus. A partial mole with a concomitant fetus is reported to occur in 0.005% to 0.01% of pregnancies.³

Ultrasound help in the detection of a hydatidiform mole and co-existing fetus in the first trimester, US findings have a “molar placenta”, which is significantly enlarged compared to the size of the uterine cavity and associated with cystic areas. An amniotic cavity (gestational sac) is found to either be empty or to contain a structurally deficient, abnormally tiny, and amorphous fetus.⁵

Once the pregnancy ends or the baby is delivered, there is a risk that the patient will bleed out or get cancer. In a prior study of 90 people, anemia was discovered in 51% of cases, hyperemesis gravid in 29%, hemorrhage per vagina in 90% of cases, uterine size larger than expected for gestational age in 62% of cases, and ovarian enlargement in 27% of cases.³ The results of our research and those of related earlier studies show that preterm labor, severe preeclampsia, or hemorrhage are likely to occur in molar pregnancies with a co-existing fetus and are frequently linked to high mortality and morbidity rates, calling for early intervention.

In order to check for chromosomal abnormalities in the fetus before birth using amniocentesis, due to a lack of resources, we were unable to do fetal karyotyping, and even karyotyping could not be done after childbirth in our country.

This case report describes a partial hydatidiform mole that coexisted with a live fetus that was 24 weeks gestation, and the patient experienced acute vaginal bleeding and uterine contraction.

Transabdominal ultrasound revealed a huge, heterogenous complicated cystic mass in the uterine fundus, which was determined to be an abnormal placenta with a strong suspicion of molar tissue.

The pelvic examination revealed a 4 cm cervical dilatation, the woman gave birth to a viable female fetus 4 hours after being admitted, and 20 minutes later the placenta and a significant amount of grape-like cystic ruptured.

A partial mole was identified during a placenta histology analysis.

The mother's blood b-HCG titer decreased to undetectable levels one month after birth without any treatment. She was doing well, and a follow-up sonogram six months later revealed no evidence of retained tissue or recurrence.

Highlights

Pregnancy of a hydatidiform mole with a coexistent live fetus in most cases is a complete molar pregnancy. Partial molar pregnancy with fetus is rare and almost always ends in miscarriage due to triploid fetus.

Molar pregnancy usually appears in the first trimester and is accompanied by a variety of symptoms such as vaginal bleeding, uterine ovarian enlargement.

Abbreviations

B hCG, Beta hCG; GTD, Gestational Trophoblastic Disease; CHM, Complete hydatid form mole; PHM, Partial hydatid form mole; PSTT, placental site trophoblastic tumors.

Ethics Approval and Consent to Participate

Ethical approval was waived by the ethical committee of Mogadishu Somali Turkey, Recep Tayyip Erdogan Training and Research Hospital.

Written informed consent was obtained from the patient for the publication of this case report and accompanying images.

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Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

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