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Case Report

A rare case of complete hydatidiform mole with a live fetus: a case report

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ABSTRACT

Twin pregnancy with complete hydatidiform mole represents a very rare obstetric problem resulting in a healthy take-home baby with only 56 cases documented in detail in literature. The main issue is to differentiate between two diagnoses: dichorionic twin pregnancy with normal fetus (46 chromosomes, 23 maternal and 23 paternal) and complete molar pregnancy (46 chromosomes, all paternal) and singleton pregnancy consisting of a triploid fetus with partial hydatidiform mole placenta (69 chromosomes, 23 maternal and 46 paternal). Management of such cases is always problematic because the possibility of fetal survival should always be weighed against the risk of complications of molar pregnancy. The specimen was received for histopathological examination and fixed in 10% formalin for processing. After gross analysis representative sections were given for tissue processing. Sections were processed routinely with paraffin embedding and stained with haematoxylin and eosin. In the present report a case of 25-year-old woman who presented to the center referred from peripheral center with 27 weeks of gestation, diagnosed as twin pregnancy with molar pregnancy and single live fetus.

Keywords: Twin pregnancy, Complete hydatidiform mole

INTRODUCTION

Gestational trophoblastic diseases are neoplasias originating from the placenta. Twin pregnancy with a complete hydatidiform mole and a normal fetus is extremely rare, with an estimated incidence of one in 22,000-100,000 pregnancies.[1,2]

The main issue is to differentiate between two diagnoses: dichorionic twin pregnancy with normal fetus (46 chromosomes, 23 maternal and 23 paternal) and complete molar pregnancy (46 chromosomes, all paternal) and singleton pregnancy consisting of a triploid fetus with partial hydatidiform mole placenta (69 chromosomes, 23 maternal and 46 paternal). Twin pregnancy with complete hydatidiform mole coexisting with a live twin fetus resulting in a healthy take-home baby is rare, with only 56 cases documented in detail in literature.[3] Complete hydatidiform mole cases are at high risk of spontaneous abortion, preterm delivery, intrauterine fetal death, bleeding, preeclampsia, persistent trophoblastic disease.

CASE REPORT

A 25 years old primi gravida with gestational age of 26 weeks reported at Modern Government Maternity Hospital (MGMH)/ Osmania, Medical College, Hyderabad, Telangana State, India, referred from peripheral center which was diagnosed as twin pregnancy with hydatidiform mole.

Trans-abdominal ultrasound examination done outside demonstrated a normally growing live fetus of 26-27 weeks with a normal placenta and additional intrauterine echogenic mass lesions in the anterior wall of uterus suggestive of partial molar pregnancy.

Ultrasound examination at 15 weeks was interpreted as normal pregnancy with single live fetus with one normal placenta and successive scan done at 26 weeks of gestation showed a live fetus matching the age of gestation alongside a normal-looking placenta located at the posterior uterine wall and an additional echogenic mass resembling molar placenta located at the anterior uterine wall resembling molar pregnancy (Figure 1).

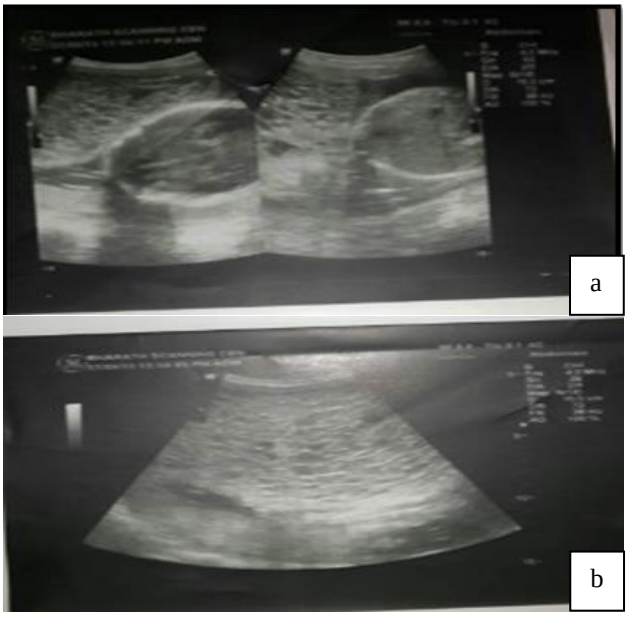

Figure 1 (a) and (b): Echogenic mass resembling molar placenta alongside with normal-looking placenta located at the posterior uterine wall.

On admission ultrasound scan done at our institute demonstrated single live fetus with normal placenta along with multiple cystic changes with minimal to absent vascularity noted in another placenta measuring about 13.6 cm x 8.1 cm suggestive of hydatidiform mole along with multiloculated cystic lesions noted in the bilateral adnexal regions.

On physical examination patient has no abdominal pain, no vaginal bleeding and with history of palpitations and tachycardia. No history of treatment for conception was taken.

Per abdominal examination revealed fundal height of 34 weeks with normal fetal heart beat. On biochemical screen elevated levels of β-hCG (4,17,430 mIU/ml) was noted. Subsequent investigations confirmed elevated T3 and T4 levels with thyrotoxicosis, normal blood pressure, no proteinuria and normal chest X-ray. The patient delivery was planned pre term because of intrauterine growth retardation of fetus, thyrotoxicosis and hyperaemia. A live male infant (1075 g) with an Apgar score 6/8 at 1 min and 5 min was delivered by normal vaginal delivery with breech presentation. Normal placenta separated manually from the inner uterine wall completely but molar tissue was not extracted completely (Figure 2).

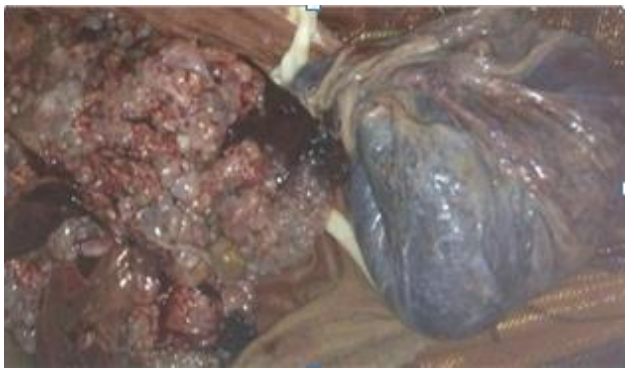

Figure 2: Vesicular molar tissue with adjacent normal placenta.

Figure 3: Live baby with adjacent normal placenta with umbilical cord.

Patient was stable for 3 days and later she complained passing of vesicles with grey brown material from vagina and suction and evacuation was done for it and tissue sent for histopathological examination which revealed remnants of molar tissue, and the serum β-hCG level was declined to 1,14,870 mIU/mL and normalized gradually within 6 months without any chemo therapy and with no evidence of persistent or metastatic disease.

Careful follow-up showed no sign of placental trophoblastic disease. The baby was discharged. Normal placenta along with hydatidiform molar tissue was received for histopathological examination, and tissue were fixed in 10%formalin for processing. Gross examination revealed one placenta measuring 16 x 9 x 3 cm, with umbilical cord measuring 23cm weighed 280 g with normal basal and chorial plates and an umbilical cord. The second measured 17 x 16 x 2 cm, weighed 600g and was made up of large to small vesicular structures, cysts were measured 0.5 to 1.0cm,

representative sections were given for tissue processing (Figure 4).

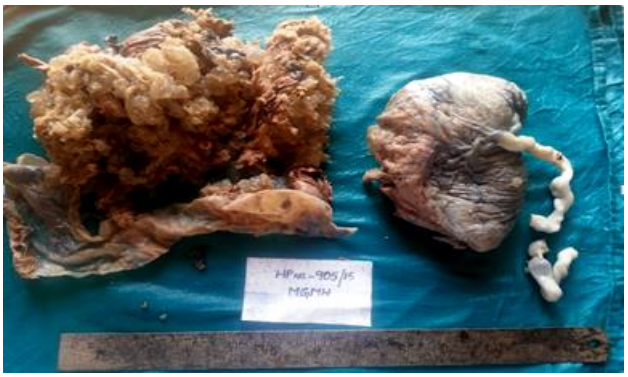

Figure 4: Cystic vesicular molar tissue on left side and normal placental tissue with umbilical cord attached on right side after fixation.

Sections were processed routinely with paraffin embedding and stained with haematoxylin and eosin. Later on third post-operative day, suction and evacuation products were received for histopathological examination and grossly it resembled as molar tissue, grey brown vesicular material tissue, it was processed routinely with paraffin embedding and stained with haematoxylin and eosin.

The microscopic examination of molar tissue revealed multiple edematous villi with trophoblastic proliferation of inner cytotrophoblast and outer synctiotrophoblastic tissue, trophoblastic tissue showed with mild atypia, hyperplasia seen circumferentially around the villi, many showing central cistern formation (Figure 5). Few areas showed areas of hemorrhage. Section from normal placental tissue showed chorionic villi composed of stroma with dense network of dilated capillaries surrounded by markedly thinned-out syncytiotrophoblast and cytotrophoblast (Figure 6). Sections from suction evacuation products also revealed multiple edematous villi with trophoblastic proliferation of inner cytotrophoblast and outer synctiotrophoblastic tissue.

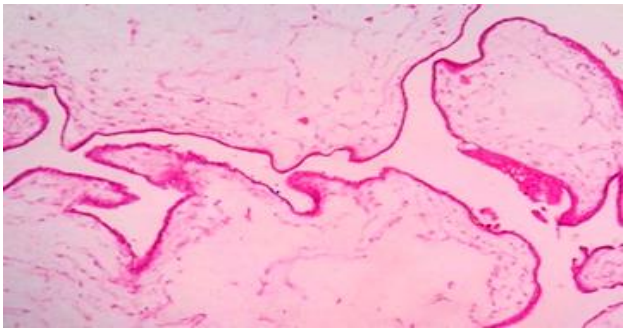

Figure 5: Section from molar tissue showing multiple edematous villi with trophoblastic proliferation of inner cytotrophoblast and outer synctiotrophoblastic tissue.

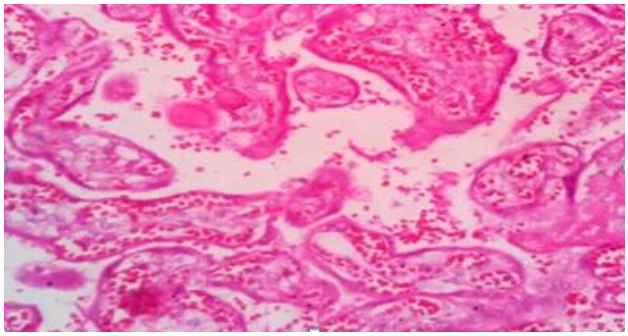

Figure 6: Section from normal placental tissue showed chorionic villi composed of stroma with dense network of dilated capillaries surrounded by markedly thinned-out syncytiotrophoblast and cytotrophoblast.

Two weeks after delivery, the serum β-hCG level was 966 mlU/mL and normalized gradually within 6 months without any chemo therapy and with no evidence of persistent or metastatic disease. Careful follow-up showed no sign of placental trophoblastic disease. The baby was discharged from hospital weighing 2080g at 64th postoperative day. Now he is two years old and in good health.

DISCUSSION

There have been so far, about 200 cases of twin pregnancy with complete hydatidiform mole fully documented in literature, while only 56 cases result in a live birth. In the late 1970s, Vassilakos et al firstly described two different pathologic entities, partial and complete hydatidiform mole, with different mechanisms of origin based on cytogenetic analysis.[1,2] Partial moles derive from dispermic fertilization of a haploid normal oocyte and produce a triploid set of chromosomes.

A complete hydatidiform mole contains a diploid set of 46 chromosomes, all of paternal origin and no traces of fetal parts can be identified.

Complete and partial moles have distinct fetal and maternal complications. In the combination of a partial hydatidiform mole, the fetus is almost always triploid and the indication for a termination of pregnancy is evident. In contrast, the fetus may be normal in a twin pregnancy with a complete hydatidiform mole and continuation of pregnancy is frequently associated with severe maternal complications, Diagnosis should also include molar placental karyotype.[4] Although not available for our patients, as in most documented cases.[1,4-6]

Doctors were convinced that both the cases were complete hydatidiform mole due to diploid karyotype, normal newborn, ultrasound demarcation between the normal and molar placenta and histopathological examinations. The management of such pregnancies can be either immediate termination of pregnancy to avoid

the potential maternal complications. The true incidence of this rare entity is difficult to establish, and some suggest that the modern increased incidence of iatrogenic multiple gestations will cause a higher incidence of complete hydatidiform mole.[1,3]

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