A Case Report of Partial Molar Pregnancy Associated with A Normal Dizygotic Twin

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ABSTRACT

Partial molar pregnancy is an uncommon thing in which there is usually a triploid atypical fetus accompanying with a large placenta with cystic changes. The incidence of a normal diploid fetus and a partial molar placenta is really uncommon. Here we report a case of partial molar pregnancy in which a normal looking fetus with diploid karyotype coexist. A focal placental abnormal region was noticed at 13 weeks of pregnancy as enlargement associated with cystic changes. Fetus showed no clear deformity. Concerning these findings, the patient continued her pregnancy under close observation and advanced sonographic evaluations were made to rule out other differentials. There were no obstetric complications until the 28th gestational week when vaginal bleeding occurred. The patient underwent caesarian section and the products were sent for pathologic assessment which confirmed the partial molar changes.

Keywords: Molar Pregnancy, Normal Dizygotic Twin, Triploid atypical fetus.

INTRODUCTION

A partial molar pregnancy is a variation of a molar pregnancy in which an embryo either not completely developed or develops with many anatomical anomalies. In this type of abnormal conception, the egg typically receives two group of chromosomes from the father, because the egg received two sperms. Instead of 46 the egg now has 69 chromosomes [1]. Most cases in which molar change has been recorded with presenting of normal fetus represent a dizygotic twin's pregnancy containing complete hydatidiform mole and normal developing fetus with obviously recognizable molar areas in the placenta [2]. We present a case of partial molar pregnancy associated with a normal dizygotic twin.

CASE REPORT

40 years old Saudi female gravida 6 para 4+1 previous, 4 cesarean section medically free pregnant at 12 weeks of gestation came to emergency department of King Faisal hospital in 21st of May 2017 due to abdominal pain and mild vaginal bleeding in the last night. On examination she was hemodynamically stable and not in distress, with fundal level of 13 weeks, ultrasound shows diamniotic dichorionic, single live fetus with Crown-rump length = 5.4 cm with beating fetal heart. There was another partial molar pregnancy with remnant embryonic tissue and low placenta above the internal os with Swiss cheese appearance. This one was lower than the living fetus (see figures below), labs showed beta-HCG 58,000 mIU/mL. The patient admitted for close observation because threatened abortion and the investigation findings and the risk of the case e.g. fetal death; were explained to the patient and her husband and they decided to keep the pregnancy, then the patient was discharged after two days.

At 25th weeks of gestation the patient came to emergency room with lower abdominal pain and back pain. On examination she was stable with unremarkable findings and was admitted for observation until delivery. Her beta-HCG was 106,000 mIU/mL and the ultrasound revealed molar pregnancy without visible embryonic tissue with coexistent live fetus at 24th-weeks-old with normal anatomy and posterior placenta.

Patient received dexamethasone and cesarean section was planned with bilateral tubal ligation (BTL) at 34th week if not indicated before. Consent of BTL was signed by the couple, then the patient was discharged because she is living near the hospital and there is good support at home. The high risk of live fetus to be with chromosomal anomaly and intrauterine fetal death or early neonatal death was explained to the patient and she was advised to come to emergency room if there is any complaint.

At the 28th week of gestation the patient came to emergency with vaginal bleeding and abdominal pain. On vaginal examination the cervix was 2 cm dilated and 60% effaced -3. Ultrasound showed partial molar pregnancy with coexistent normal anatomy live fetus at 26th week. The patient was shifted to an urgent cesarean section.

Lower segment cesarean section was done under general anesthesia. A living male fetus was delivered, with cephalic presentation with good APGAR score, then the molar pregnancy sac was removed completely. It was grape-like with vesicular tissue. A large amount of placental tissue

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was removed completely. The uterine cavity was cleaned completely and uterus was closed in double layer, BTL was done by Pomeroy technique, and specimen was taken and sent to histopathology. Histopathology results showed large chorionic villi with bullous appearance, uniform hydropic changes, diffuse circumferential trophoblastic proliferation, basophilic stroma with karyorrhectic debris, immature labyrinthine stromal vessels and central cisterns. The report confirmed a complete hydatidiform mole. After surgery the patient was admitted to intensive care unit then was discharged after five days with one-week appointment at the clinic.

Fig 1: fetus with doppler showing positive cadriac activity.

Fig 2: DC-DA twins pregnancy: 1st sac with alive fetus and 2nd with incomplete molar pregnancy.

Fig 3: 2nd twin sac with swiss cheese appearance of placenta.

DISCUSSION

Partial molar pregnancy with coexisting fetus is an unusual medical event with the incidence of 0.005%-0.01% of all the pregnancies [3]. It usually originates from dispermic fertilization of a haploid normal oocyte and produces a triploid set of chromosomes [4]. A hydatidiform mole and co-existent fetus can be diagnosed in the first trimester by ultrasonography. An amniotic cavity is seen, either empty or containing unorganized inappropriately small fetus with multiple anatomical anomalies [5].

However, in some cases molar changes in placenta is related with a normal diploid fetus. In events of such relation other possibilities should be considered. Complete mole with co-existing normal fetus and normal placenta in twin pregnancy [6], so the first assessment is looking for a normal separate placenta [7]. In cases of a singleton normal fetus with partial molar placenta, the fetus must have normal karyotype to survive in utero. In our case we did not do karyotype due to unavailability of cytogenetic lap facilities in our hospital. From this clinical view, there are two different types of US findings in the placenta: the focal and diffuse molar changes [8].

The former shows a cystic space within placenta (Swiss cheese appearance) as in the case of our patient. The differentiation between a focal partial molar degradation and twin pregnancy co-existing complete mole might be difficult by ultrasound because they both present with two distinguished regions of the placenta. An effective way is to follow the fetus umbilical cord. If it links to the molar placenta, one could exclude the twin pregnancy, but if it links normal placental site; differentiation of two structures is not possible by ultrasonography. Another sight in the setting of focal vascular placental lesion related with normal diploid fetus is placental mass such as chorioangioma. However, the differentiation is based on its sonographic feature which shows a well circumscribed lesion with different echo pattern from the rest of the placenta, and can be lying on the fetal placental surface or prominent into the amniotic cavity.

Diagnosis of chorioangioma by ultrasonography is based on an increased vascularity with the same pulsation rate as in the umbilical cord [9]; features that is not present in molar placenta. Another rare vascular placental lesion must be considered as a rare differential diagnosis is placental mesenchymal dysplasia. It has been documented to be more in female fetuses with a Female: Male of ~3.5:1[10].

Thickening placenta with hypoechoic areas is one of placental mesenchymal dysplasia in ultrasonography imaging [11]. Granting placental mesenchymal dysplasia may be related with

different patterns of blood current with progress of gestation, low or absent venous signals, and sonography typically exposes a reduction in the size of the molar share of the placenta inside the placental lesion may be of value in distinguishing placental mesenchymal dysplasia from chorioangioma or a molar pregnancy that are described by high speed blood flow [12]. Management of molar pregnancy with co-existed normal fetus still remains difficult.

The serum β-hCG level can be a helpful indicator, when the serum β -hCG level remains above 106 mIU/mL, termination of pregnancy should be considered. In contrast, in cases of successful pregnancy outcomes with viable fetuses, the serum β -hCG level usually starts to decline from the beginning of the second trimester [13].

CONCLUSION

In twin pregnancies with one partial mole, the probability of providing a healthy viable fetus is small. This form of pregnancy creates an important management dilemma for the treating doctor, mainly if the pregnancy was planned. Complete counseling, close follow-up and suitable intervention is vital during the conservative management of this rare clinical entity.

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CONFLICT OF INTEREST

There was no conflict of interest.

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