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Case Report

Obstetrics and Gynaecology Section

Successful Outcome of Twin Gestation with Partial Mole and Co-Existing Live Fetus: A Case Report

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ABSTRACT

Sad fetus syndrome comprising of a live twin gestation with a hydatidiform mole is a rare entity. The condition is even rarer when the co-existing live fetus is associated with a partial mole than a complete mole. We report the case of a 24-year-old $G_2P_1L_1$ at 28 weeks gestation who presented to our casualty in the second stage of labour. She had a previous ultrasound scan at 13 weeks which showed a live fetus with a focal area of multicystic placenta. She delivered an alive preterm male fetus weighing 1.32 kg vaginally. Following expulsion of normal placenta of the live fetus, partial mole was expelled. The fetus was admitted to neonatal ICU and discharged after two weeks. Soon after delivery, β-hCG (human chorionic gonadotropin) was 1,21,993 mIU/ml which decreased to 30mIU/ml within two weeks. The patient was discharged with advice of regular follow up of β-hCG reports.

Keywords: β-hCG, Fetal karyotype, Multicystic placenta

CASE REPORT

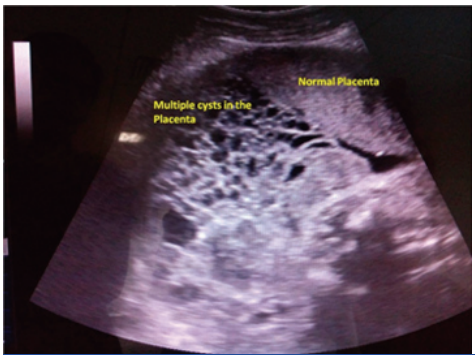
A 24-year-old $G_2P_1L_1$ at 28 weeks gestation presented to casualty of Department of Obstetrics and Gynaecology, Mahatma Gandhi Medical College and Research Institute, Pondicherry with pain abdomen for the past two hours. There was history of third degree consanguineous marriage and she had a previous term vaginal delivery with a 3.2 kg healthy baby. General and system examination revealed no abnormality. Per abdomen examination showed uterine height to be 28 weeks. She was getting adequate uterine contractions and per vaginal examination revealed that she was in the second stage of labour. There was history of spotting per vaginum in the first trimester for which she was treated with micronized progesterone. She had a previous ultrasound scan at 13 weeks which showed a live fetus with a focal area of multicystic placenta in the fundal region of uterus [Table/Fig-1]. Rest of the placenta and bilateral ovaries were found to be normal. The features were suggestive to be that of a partial mole. The patient was counseled regarding the abnormality detected in scan, explained about the risks but she opted to continue her pregnancy.

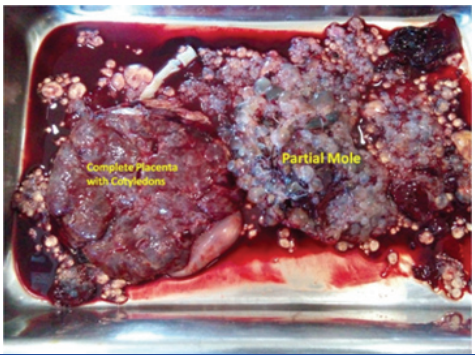
She delivered a live preterm male fetus weighing 1.32 kg vaginally. Following expulsion of normal placenta of the live fetus, partial mole was expelled [Table/Fig-2,3]. The Apgar score was 2 at 1 minute and 9 at ten minutes. The fetus was admitted to neonatal ICU for pre-term care and discharged after two weeks. No congenital anomaly was detected in the fetus. Soon after delivery, β-hCG was 1,21,993 mIU/ml. Serum β-hCG was 78 and 30 mIU/ml at the end of 1st and 2nd weeks respectively. Her chest X-ray and thyroid function tests were found to be normal. Histopathological report revealed no abnormality in the placenta and cord of the normal fetus. The other specimen showed features suggestive of partial mole with microscopic evidence of focal trophoblastic cell proliferation, few villi with hydropic swelling, scalloping of the villi and trophoblastic lining. The patient was discharged with advice of regular follow up of β-hCG reports and counseled about the risk of persistent trophoblast disease. On follow up, 4 weeks after her delivery her β-hCG reports returned to normal. She is on regular follow up at our institute. We report this case because of its rarity and successful survival of the fetus after delivery.

DISCUSSION

Abnormal fetoplacental development and trophoblastic hyperplasia due to excessive paternally derived genetic material is the basic pathology behind hydatidiform mole [1]. The incidence is on the rise with the greater use of assistive reproductive techniques [2]. The incidence of a rare condition like partial molar pregnancy with co-existing fetus is 0.005% to 0.01% of all the pregnancies [3]. Death is common in such fetuses owing to congenital anomalies like triploidy and severe intrauterine fetal growth retardation due to limited normal functional placental circulation. It presents with several dilemmas in management during pregnancy and the woman must be counseled regarding the maternal and fetal complications and the risk of persistent trophoblastic disease in later life.

Excluding cases of multiple fetuses, co-existing molar pregnancy with normal live term fetus as seen in our case is extremely rare. Three types are possible in such an association [4]. Twin pregnancy with one normal fetus having a normal placenta and another complete





[Table/Fig-1]: Ultrasound showing focal area of multicystic placenta with adjacent normal placenta. **[Table/Fig-2]:** View of the normal placenta of live fetus and partial mole after delivery. **[Table/Fig-3]:** Formalin preserved specimen of partial mole

mole is the first and the commonest one. There have been so far, about 200 such cases fully documented in literature of which only 56 resulted in a term live birth [1]. Our case is of the second type resembling a twin pregnancy with normal fetus and placenta and another partial mole. Reports regarding obtaining a normal placenta with a twin partial molar placenta are rare. Singleton normal fetus with partial molar placenta [4] which has been reported 7 times in literature is the third and most uncommon type. Placenta may have variation, from diploidy of the amnion to triploidy of the chorionic villi but such a fetus requires normal karyotype to survive to term [5].

If a live fetus is present, chorionic villous biopsy can be done to confirm the diagnosis. The identification is difficult in early stages of gestation and can be definitely diagnosed only by identifying two different genetic origins by using analytical techniques involving DNA polymorphisms [6]. Accurate differentiation between a partial mole and complete mole with a co-existing fetus is crucial because of the chance of survival of co-existing fetus in instances that include a complete mole [7].

Co-existing fetus with molar pregnancy may include many complications like PROM, late abortion, bleeding per vaginum, mal presentations, preterm labour, persistent gestational trophoblastic disease and severe anaemia in the fetus. Fetal karyotype is the most important predictor of fetal outcome in partial molar pregnancy. Degree of fetal anaemia, size of the molar placenta and the speed of molar degeneration are also known to influence fetal outcome [1]. Maternal complications also include hypertensive disorders of pregnancy, hyperthyroidism, pulmonary oedema and thromboembolic phenomena [7]. A woman who decides to continue with such pregnancies must be aware that she has 20% chance of early onset preeclampsia and less than 50% chance of live term birth [8]. After detailed discussion with the couple involved, pregnancy may be followed with regular ultrasound assessment of fetal anatomy and growth.

The high level of β-hCG exceeding one lac is very rare in cases of partial mole and is more consistent with complete mole. But the partial mole in our case had more of molar component and very few fetal components which explain the high value of β-hCG. Papoutsis et al., reported a partial mole pregnancy with a chromosomically and phenotypically normal embryo [9]. Copeland et al., also reported dizygotic twin pregnancy with a normal fetus and a partial mole [10]. As per various cases reported in literature, partial moles are most commonly associated with male fetuses [7]. Koregol et al., reported partial mole with a co-existing live fetus with severe congenital anomalies in the form of hydrocephalus, congenital talipes equinovarus, myelomenigocoele and spina bifida [11]. R Khanom et al., reported delivery of a normal live fetus by caesarean section at 34 weeks with a partial molar placenta [12].

CONCLUSION

In the past most molar pregnancies associated with live fetus were terminated in view of adverse maternal and fetal outcome in advanced gestations. Close maternal and fetal surveillance may help in achieving a favourable outcome though termination is required only in cases of gross fetal anomalies or deteriorating maternal condition.

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