Partial hydatidiform mole with a coexistent live full-term fetus

A case report

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Summary

A patient with a partial hydatidiform mole, who had a coexistent normal fetus, is described. The pregnancy proceeded to term and ended in the spontaneous, vaginal delivery of a normal baby. The placenta showed areas of macroscopic cystic degeneration with the histological features of hydatidiform mole.

Case report

A 20-year-old black primigravida was admitted to the obstetrical ward of Ga-Rankuwa Hospital in early labour. She had attended a peripheral antenatal clinic. The pregnancy had been uneventful and there was no medical or surgical history of note.

On initial examination she was 38 weeks pregnant. The pulse was 80/min and the blood pressure 110/80 mmHg. The haemoglobin was 10,9 g/dl. The systemic examination revealed no abnormality.

The fetus was in the left occipitolateral position with the presenting part 5/5 above the pelvic brim. The fetal mass was estimated to be 3500 g. The fetal heart rate was 140/min and regular.

On first examination the cervix was 3 cm dilated and well effaced. The pelvis was adjudged to be borderline for the baby. A normal male infant, with a mass of 3450 g and a length of 50 cm, was delivered vaginally 12 hours after admission. The Apgar score was 9 immediately and 10 after 5 minutes.

Physical examination of the baby revealed no abnormality. The placenta, however, showed a large area of cystic degeneration.

The serum $\beta$-subunit of human chorionic gonadotrophin (HCG) level was 1387 IU/l 14 days after delivery and 80 IU/l 3 weeks after delivery.

Pathological examination

The specimen consisted of a placenta and membranes measuring 16 cm in diameter, with a mass of 590 g. A 50 cm length of umbilical cord was attached to the placenta. A mass of grape-like cysts, which constituted roughly 25% of the total placental volume, was seen to arise from one side of the placenta.

Histological examination of the placenta showed small villi surrounded by syncytiotrophoblasts with syncytial knots. The villi contained capillaries and larger vessels filled with non-nucleated red cells. A few Hofbauer cells were seen in the villi.

Histological examination of the grossly abnormal tissue revealed the presence of large, hydropic, avascular villi with areas of trophoblastic proliferation. The features were considered to be diagnostic of a hydatidiform mole.

Discussion

The incidence of hydatidiform mole with a co-existing fetus varies from 0.005% to 0.01% of all pregnancies.\(^1\) Beischer\(^2\) reported 10 in 110477 pregnancies and Jones and Laursen\(^3\)
reported 8 in 175 990 pregnancies. In a series of 285 cases of hydatidiform mole collected by Beischer and Fortune over a 26-year period, 17 (5.9%) had a co-existent fetus giving an incidence of 1 in 11,650 pregnancies of this condition. A combined series of 29 cases of hydatidiform mole associated with a co-existent fetus revealed that only 3 of the pregnancies yielded a live-born infant at term.

A recent article from South Africa reported a case of co-existent fetus and hydatidiform mole in which the pregnancy was terminated at 13 weeks. We believe that our patient is the first case of a partial hydatidiform mole with a co-existent live fetus which proceeded to term to be reported from Africa.

Trophoblastic disease can be broadly classified into villous and non-villous forms. The villous form is further sub-classified into the following categories: (i) hydropic abortion — products of conception in which some degree of villous swelling occurs without trophoblastic hyperplasia; these patients do not require follow-up; (ii) complete hydatidiform mole — placental tissue is completely replaced by gross vesicular change; microscopically, hydropic villi and trophoblastic hyperplasia are seen and fetal parts are absent — this condition has an acknowledged malignant potential and careful follow-up is required; and (iii) partial hydatidiform mole — focal villous hydrops with trophoblastic hyperplasia usually associated with a blighted ovum or fetal parts; malignant sequelae have been described in partial mole and follow-up of the patient is mandatory.

Our case falls into the third category and is unusual in that the fetus was normal and the pregnancy proceeded to term.

The incidence of hydatidiform mole varies from 1 in 2000 pregnancies in the USA and western Europe to 1 in 200 in certain parts of Asia and Central America. The aetiology of hydatidiform mole is unknown. Hertig and Edmonds considered hydropic change to be due to early blighting of the ovum with consequent failure of development of fetal circulation. Park has suggested that the defect lies in the trophoblast itself since not all defective ova are associated with hydropic change and fetal death does not necessarily lead to accumulation of fluid within the villi.

Hydatidiform mole with a co-existent fetus carries a high risk of pre-eclampsia. In a review of 92 cases reported worldwide this was found to be the dominant feature and was often of the fulminant variety.

The diagnosis of hydatidiform mole is more difficult when a co-existent fetus is present. An elevated β-subunit of HCG level is the most reliable indicator when multiple pregnancy has been ruled out. Patients with molar pregnancy have also been found to have serum human placental lactogen values 10-100 times lower than normally expected levels for corresponding gestational age. Ultrasonography reveals a normal fetus in conjunction with the typical 'snowstorm' pattern described in molar pregnancy.

Partial hydatidiform mole presents most of the pathological and clinical features of classical mole. Beta-subunit of HCG levels are usually lower in partial mole. Pre-eclampsia can be equally severe in both syndromes but usually occurs later in partial mole. A recent review by Watson et al. of 55 cases of partial mole revealed that malignant trophoblastic disease occurred in 14.5% of cases. All these patients achieved remission with adjuvant chemotherapy. In a series reported by Szulman and Surti only 10% of partial moles were correctly diagnosed before spontaneous or elective abortion.

Jones and Laursen recommend immediate abortion after the diagnosis of hydatidiform mole with co-existent fetus. Suzuki et al., however, state that in the absence of pre-eclampsia or fetal abnormality the pregnancy can be allowed to continue since there is no reported evidence suggesting that the likelihood of secondary molar growth or choriocarcinoma increases as the pregnancy advances. Watson et al. confirm that in the presence of a normal karyotype obtained on amniocentesis, no evidence of fetal abnormalities on ultrasonography and a stable clinical course, the pregnancy should be allowed to continue until fetal maturity is reached.

Our case is an example of the rare entity of a hydatidiform mole with co-existent fetus made more unusual by the fact that the pregnancy proceeded to term with the birth of a normal live infant.

REFERENCES