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Case Report

Twin Molar Pregnancy Associating Complete Hydatidiform Mole and Normal Fetus: A Case Report

Abdeladim Ayadine[1]*, Fatima El Mangoub[1], Yassine Bouhtouri[1], Meriem Zhim[2], Moulay Mehdi Elhassani[1] and Jaouad Kouach[1]

[1]Department of Gynecology-Obstetrics, Mohammed V Military University Hospital, Faculty of Medicine and Pharmacy, Mohammed V University, Rabat, Morocco

[2]Department of radiology, Mohammed V Military University Hospital, Faculty of Medicine and Pharmacy, Mohammed V University, Rabat, Morocco

***Corresponding Author:** Abdeladim Ayadine, Department of Gynecology-Obstetrics, Mohammed V Military University Hospital, Faculty of Medicine and Pharmacy, Mohammed V University, Rabat, Morocco.

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Abstract

The advent of ultrasound has revolutionized obstetrical care, both diagnostic and therapeutic. It has made it possible to detect exceptional situations, such as twin molar pregnancies associating CHM and normal fetus. A rare but challenging situation, by its complications, uncertain evolution and the lack of available data in the literature. Requiring a great deal of care and thought to manage.a

We share with readers a case of twin molar pregnancy managed in our unit with a favorable evolution after evacuation, with literature review.

Keywords: *Twin Molar Pregnancy; First Trimester Vaginal Bleeding; Complete Hydatidiform Mole; Gestational Trophoblastic Neoplasia*

Abbreviations

CHM: Complete Hydatidiform Mole; PE: Pre-Eclampsia; PTD: Persistent Trophoblastic Disease; BHCG: Fraction Beta of *Human Chorionic Gonadotropin*

Introduction

Twin molar pregnancy, combining CHM and normal fetus is a rare condition, resulting from fertilization of two separate oocytes, one progressing to hydatidiform mole, the second to a normal pregnancy. It is considered as a high-risk pregnancy, exposing the patients to many complications: vaginal bleeding, hyperthyroidism, PE, fetal death and a greater chance of developing a PTD. (1) (2) Yet in 1/3 of cases, they can result in the delivery of a healthy new born. (3) (1)

The diagnosis is possible at the end of the first trimester thanks to ultrasound scans, showing a normal fetus and placenta next to a molar mass. (4)

The management of twin molar pregnancies is controversial and depends on a number of factors: term of diagnosis, occurrence and severity of complications and the patient desire, especially those with fertility issues (22% of these pregnancies are conceived with assisted reproductive technology). (4)

We report the case of a twin molar pregnancy, revealed by first trimester vaginal bleeding, diagnosed at 10 weeks of gestation, the pregnancy was terminated with a favorable evolution after evacuation.

Observation

29-year-old female, gravida 4, para 2 (G4P2: 2 vaginal deliveries, 1 early spontaneous abortion), admitted to emergencies for moderate vaginal bleeding, complicated by a poorly tolerated anemic syndrome, and incoercible vomiting which had been progressing for several weeks.

Clinical examination revealed a pale-looking patient with slightly discolored conjunctiva and tachycardia. The abdomen was soft, with the uterus reaching halfway to the umbilicus. There was moderate red uterine bleeding with no adnexal mass.

Ultrasound revealed a gravid uterus with two gestational sacs separated by a thick septum (Figure 1). The first contained a fetus with positive cardiac activity and a craniocaudal length of 31 mm corresponding to 10 weeks of gestation, with a placenta of normal appearance (Figure 2), while the second concealed an echogenic mass of multivesicular structure without embryonic echoes suggestive of a complete hydatidiform mole, and several hemorrhagic patches (Figure 3).

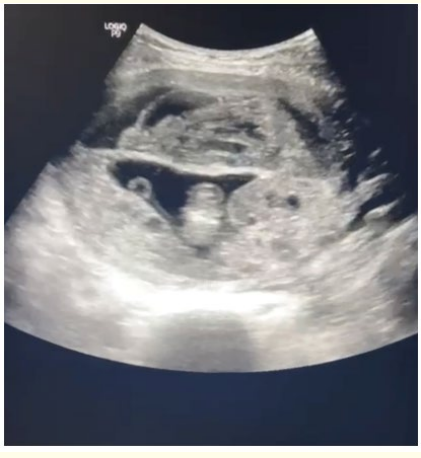

Figure 1: *ultrasound image of a twin molar pregnancy combining CHM and a normal fetus separated by a thick wall.*

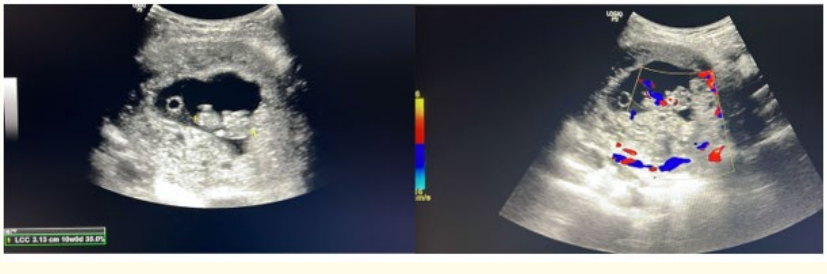

Figure 2: *Image of the living embryo at 10-weeks of gestation.*

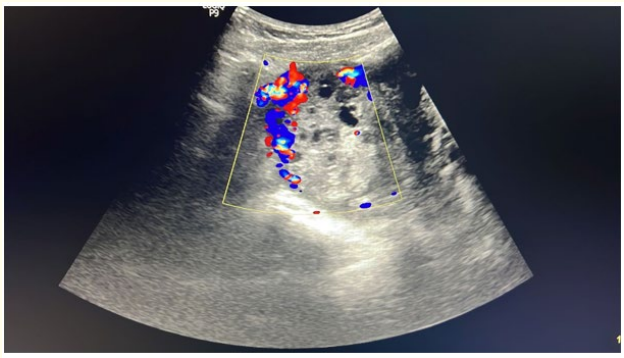

Figure 3: *Image of the multi vesicular mass suggesting a hydatidiform mole.*

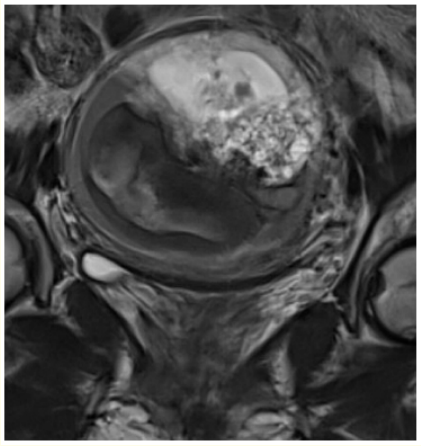

Figure 4: *Pelvic MRI showing no signs of myometrial invasion.*

The diagnosis of a twin molar pregnancy involving a living embryo and a CHM was therefore established. And a pelvic MRI was performed showing no evidence of myometrial invasion.

The lab tests revealed a microcytic hypochromic anemia (Hg 8.7g/dl), a BHCG of 159110 mUI/L and a collapsed TSH.

The patient was admitted and stabilized transfusing 2 packed red blood cells. then the decision was to end the pregnancy by performing an echo-guided uterine aspiration until vacuity was achieved. Anatomopathological examination of the aspirated material showed a complete hydatidiform mole and a male fetus.

Weekly BHCG monitoring was negative by the sixth week. To date, 24 months' follow-up, the patient is on effective contraception with monthly clinical and biological monitoring, with no signs of persistent trophoblastic disease.

Discussion

In the case of a dizygotic twin pregnancy, the coincidence of a CHM and a normal pregnancy is a rare event. The incidence is estimated around 1/22 000 to 1/100 000 pregnancies. (5) In such case, the healthy fetus is of diploid parental origin, while the complete mole is of strict diploid paternal origin. The risk of fetal aneuploidy is therefore not increased. (6) (7)

The diagnosis can be quite confusing, mainly with partial hydatidiform mole, it is suspected at the end of the first trimester on ultrasound, where it appears typically as a multi-cystic molar mass associated with a eutrophic fetus and a normal placenta. (4) Clinical features: persistent vaginal bleeding more or less associated with increased sympathetic signs of pregnancy, a large uterus for the age of the pregnancy, and a very high serum BHCG level, support the diagnosis. But the certainty is only obtained by anatomopathological examination.

The outcome of molar twin pregnancies with CHM and coexistent fetus is variable, the live birth rate among cases reported in the literature is 33.9%. (7) (8) While the risk of complications is high, as summarized in a literature review, by Ling Wee and Eric Jauniaux, analyzing the evolution of 174 pregnancies combining a CHM and a normal fetus: Women who decided to continue with the pregnancy had developed in around third of cases a PTD after delivery, 20% got early onset of PE, 42% fetal losses and 47% of vaginal bleeding. (4)

To all these risks, especially the potential evolution to a PTD, which appears to be greater when a CHM is associated to a normal pregnancy (1-5% for CHM vs 50-57% in twin molar pregnancies) (7) patients are usually advised to put an end to the pregnancy, with close monitoring of BHCG levels after uterine evacuation.

However, this situation is not always the case, some patients, with fertility issues or religious considerations, desire to keep the pregnancy. On those terms, certain authors suggest that the pregnancy can be continued, in the absence of invalid complications: like severe PE, signs of myometrial invasion or the occurrence of a trophoblastic neoplasia. (9) Repeated ultrasound allow to monitor the evolution of the molar placenta and to scan for myometrial invasion using color Doppler. (10)

Conclusion

Twin molar pregnancies combining CHM and normal fetus is an uncommon situation, with high risk of maternal and fetal complications, the most serious of which being the increased chance to develop a gestational trophoblastic neoplasia.

Early termination of the pregnancy appears to be the safest option. Continuing gestation is possible for patients who wish to, but they must be cautioned about the potential severe complications, that may necessitate a prompt pregnancy termination.

Conflict of Interest

Authors do not report any financial or personal connections with other persons or organizations, which might negatively affect the contents of this publication and/or claim authorship rights to this publication

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