A Case of Persistent Intrauterine Molar Pregnancy with Final Diagnosis of Heterotopic Molar Pregnancy: A Very Rare Entity

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Abstract

Introduction: Gestational trophoblastic disease (GTD) includes hydatiform mole, choriocarcinoma, placental site trophoblastic tumor, and epithelial trophoblastic tumor (1). Also, molar pregnancy can happen as an ectopic pregnancy. The coincidence of these complicated pregnancies seems to occur extremely rarely (1). To the best of our knowledge, there is only 5 heterotopic molar pregnancy (HMP) reported in the literature; moreover, pure heterotopic molar pregnancy has been reported once in the literature (2). This case report described a patient with heterotopic pregnancy with both intrauterine and ectopic fallopian tubes considered as complete molar pregnancy.

Case presentation: Here, we presented a 26-year-old woman, nulli gravida with the first presentation of intrauterine complete molar pregnancy; she underwent suction curettage but was prompted to Gestational Trophoblastic Neoplasm (GTN) and she received chemotherapy. During chemotherapy, she had severe abdominal pain and underwent laparotomy, and found an ectopic molar pregnancy in the fallopian tube. Salpingectomy was done and followed up with serum human chorionic gonadotropin (hCG) level and again due to improper decrease of hCG levels, she was diagnosed as a heterotopic post-molar GTN and received methotrexate (MTX) in multiple doses, but she did not respond to MTX, so we started actinomycin-D (Act-D) for her. She was cured after receiving 5 courses of Act-D and now she is on her monthly follow-up with an hCG level.

Conclusions: It is important to notice the likelihood of ectopic molar pregnancy or a heterotopic molar pregnancy in the case of managing molar pregnancy, especially when we encounter a case’s poor response to medical or surgical therapy.

Keywords: Hydatidiform Mole, Ectopic, Heterotopic Pregnancy

1. Introduction

Gestational trophoblastic disease (GTD) includes hydatiform mole, choriocarcinoma, placental site trophoblastic tumor, and epithelial trophoblastic tumor (1). Also, molar pregnancy can happen as an ectopic pregnancy in the fallopian tube, cornea, and cervix. The coincidence of these complicated pregnancy cases seems to occur extremely rarely (1). To the best of our knowledge, there is only 5 heterotopic molar pregnancy (HMP) reported in the literature; moreover, pure heterotopic molar pregnancy has been reported once in the literature (2). This case report described a patient with heterotopic pregnancy with both intrauterine and ectopic fallopian tubes considered as complete molar pregnancy.

2. Case presentation

The patient was a 26-year-old nulli gravida woman who was referred to our center with the diagnosis of gestational trophoblastic neoplasia (GTN). Serum human chorionic gonadotropin (hCG) titer was 28000 mIU/mL. She underwent suction curettage in the 8th gestational week of pregnancy. Pathology examination confirmed a complete hydatiform mole. One week later, she had a second suction curettage due to an intrauterine tissue remnant of 25 mm and an inappropriate decrease of hCG to 25000 mIU/mL. However, no tissue was attained. During the second curettage follow-up, hCG titer remained plateau, so she was referred to our oncology department. According to the GTN diagnosis, we performed P/E including vaginal examination which was normal. Complete work up for GTN including complete blood cell count (CBC), liver/renal/thyroid function tests/chemistry profile, abdomino-pelvic, and lung computed tomography (CT) was done which was normal. The only symptoms of the disease were nausea and vomiting and mild lower right abdominal pain. We started chemotherapy with a multi-day methotrexate regimen (for 7 days and repeated it ev-
we changed her regimen to dactinomycin (1.25 mg/m² every 2
weeks of follow-up. Due to her poor response to MTX, we
response after 4 courses of chemotherapy, reaching hCG
consecutive weekly measurements. Thus, we restarted the
1000 mIU/mL, but then it remained at plateau levels after 3
weeks). After receiving 2 courses of the dactinomycin regi-
men, the hCG level reached less than 5 mIU/mL, and totally
she received 5 courses. Now, she is cured after 20 months af-
her last course of chemotherapy and is pregnant at the
gestational age of 28 weeks without any major obstetrical
complication. In order to publish all these data written in-
formed consent was taken from the patient.

3. Discussion

We reported an extremely rare heterotopic pregnancy (HP)
with both intrauterine and ectopic complete hydati-
form mole (CHM). Heterotopic pregnancy is rare. The inci-
dence has been estimated at 1 in 30000 pregnancy cases.
However, it is increased by the higher rate of associated
reproductive technology, which is one of the risk factors
of HP. Even more rare is HP which consists of molar preg-
nancy with non-molar pregnancy (3), and even more rare
than a pure heterotopic molar pregnancy. Just one case
of pure heterotopic molar pregnancy (intrauterine and
ovary) has been reported in the literature (2). Diagnosis
of HP is extremely difficult and about 50% of cases are di-
agnosed after tubal rupture (4). It seems that there is no
distinguishing value by means of lab tests and signs and
symptoms among tubal GTD and usual EP cases (1). How-
ever, HPs are diagnosed with higher levels of hCG, espe-
cially in CHM. In our case, the diagnosis of molar HP was
made with delay, maybe due to receiving 3 courses of MTX
therapy leading to tissue necrosis and prevention of fast
and high increase. It is important to notice that maybe in
ectopic molar pregnancies hCG level is less than the usual
EP. It has been suggested by Chauhan et al. cited in Yamada et al. that tubal implantation may prevent adequate vascu-
larization and lead to lower hCG levels in ectopic GTD
(5). However, some studies have revealed that ectopic GTD
has a higher probability of rupture at the time of presen-
tation versus non-trophoblastic ectopic pregnancy. This
may be the result of more trophoblastic tissue in GTD (5,
6). Management of heterotopic molar pregnancy includes
evacuation of both intrauterine and ectopic moles. Prefer-
able surgical method in non-molar EP is salpingostomy;
however, medical literature prefers to perform salpingec-
tomy rather than salpingostomy in molar EP, avoiding to
molar tissue residual in tube (7, 8). As clinical and ultra-
sonographic results of ectopic molar pregnancy might be
non-specific and mimic non-molar EP, it is so crucial to
evaluate the tissues histopathologically to achieve an ac-
accurate diagnosis. Diagnosis of complete molar pregnancy
is easier than partial mole. In macroscopic evaluation, the
tissue is bulky and bloody with hydropic changes in all
villi, presenting like vesicles, classically named bunch of
grapes. Early complete moles may not have the features
mentioned (9). In the case of our patient, the vesicular
tissue was obvious within the tube. Microscopically dif-
fuse swelling of the villi, diffuse trophoblastic hyperpla-
sia and negative for P57 immuno-histochemical marker are
characteristics of CHM (Figure 1A and B) (10). Close follow-
up with weekly hCG titer for 3 normal values (less than 5
mIU/mL) and then monthly for 6 months is essential af-
fer surgical removal of the molar tissue. The risk of GTN
following partial mole and the complete mole is 0.5% and
15%, respectively (11). As we observed in our case, even af-
after salpingectomy, the hCG level decreased from 28500 to
5000, but in the follow-up, she received chemotherapy due
to plateau levels of hCG and diagnosis of GTN. When GTN is
diagnosed (hCG levels plateau in 4 weekly measurements
over 3 weeks, rise in the hCG levels ≥ 10% in 3 measure-
ments for 2 weeks, or abnormal hCG levels persistent over
6 months), it is necessary to repeat metastatic work-up and
determine the FIGO stage and prognostic score. Metastatic
work-up includes CBC differential and platelet count, liver,
renal, thyroid function tests, chemistry profile, and imaging
(chest, abdominal-pelvic CT scan with contrast, pelvic
ultrasound or magnetic resonance imaging (MRI), and
brain MRI if pulmonary metastases are present (12). Our pa-
tient was in FIGO stage I and first-line regimen was a mul-
tiday MTX regimen (1mg/kg every 2-3 weeks). The second
line is dactinomycin in cases of initial good response to
MTX which then reaches the plateau levels (12), as we pre-
scribed for her in the second line. The limitations of our
case were that it was not obvious whether GTN was due to
intrauterine molar pregnancy or ectopic molar pregnancy,
as both of them were complete mole. Also, Further risks of

GTN in ectopic molar pregnancies were not estimated. It is so important to notice that molar pregnancy can happen as ectopic pregnancy, so if we face with poor response to medical or surgical therapy in cases of EP or even in cases of intrauterine molar pregnancy, remember it is probably an ectopic molar pregnancy or heterotopic molar pregnancy, respectively.

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Footnotes

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References


