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Case Report

A hydatidiform mole in a postmenopausal woman

Mohana Dhanapal*, Padmapriya, Anbarasi Pandian

Department of Obstetrics and Gynaecology, GMKMCH, Salem, Tamil Nadu, India

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***Correspondence:**
Dr. Mohana Dhanapal,
E-mail: mohanadhanapal1969@gmail.com

ABSTRACT

Gestational trophoblastic disease occurs in less than 1 per 1200 pregnancies. The spectrum of this disease ranges from benign hydatidiform mole to trophoblastic malignancy (placental-site trophoblastic tumor and choriocarcinoma). Benign gestational trophoblastic disease generally occurs in women of reproductive age and is extremely rare in postmenopausal women. We report a case of a 54-year-old postmenopausal woman who underwent an emergency total abdominal hysterectomy due to uncontrollable vaginal bleeding associated with an increased serum β-human chorionic gonadotropin level. The resected uterus contained an endometrial, cystic, grapelike tumor. Microscopic examination demonstrated hydropic degenerated villi with a circumferential trophoblastic cell proliferation and moderate atypia, consistent with a complete hydatidiform mole. Only isolated cases of hydatiform mole in elderly women have been reported in literature. But there still remains a risk of developing gestational trophoblastic disease in the elderly and it should always be included in the differential diagnosis of postmenopausal bleed.

Keywords: Postmenopausal women, Pregnancy, Beta HCG, Hydatidiform mole

INTRODUCTION

Gestational trophoblastic disease represents a spectrum of lesions characterised by an abnormal proliferation of trophoblast, including complete hydatiform mole, invasive hydatiform mole, choriocarcinoma, placental site trophoblastic tumour, epithelioid trophoblastic tumor, placental site nodule and plaque and exaggerated placental site reaction.[1] Trophoblastic tumors may be characterised into three broad groups:

- Benign hydatiform mole: It may be complete or partial mole. The tumour sometimes invades the wall of the uterus and the surrounding structures when it is called as invasive mole.
- Persistent trophoblastic disease: Also known as residual trophoblastic disease includes the invasive mole.
- Choriocarcinoma: This is truly a malignant tumor. It could be a nonmetastatic or a metastatic trophoblastic disease.

Complete mole is characterised by gross hydropic villous swelling with some degree of circumferential and haphazard trophoblast proliferation microscopically.[2] Its incidence is increased in eastern countries.[3] Women aged over 40 years are particularly susceptible to complete mole and are responsible for atleast one third of all cases.[4] Estimates of the incidence of molar pregnancy vary dramatically in different regions of the world.

The incidence of molar pregnancy in Japan is 2:1000, whereas incidence in Europe is 0.6 to 1.1 per 1000 pregnancies. In Taiwan it is 1 in 125 and in United States it is 1 in 1500 live births. Based on a thorough pathologic review, the incidence of complete and partial hydatiform mole was 1:1945 and 1:695 pregnancies respectively.

Ova from older women may be more susceptible to abnormal fertilisation resulting in a complete hydatiform mole.[5]

CASE REPORT

A 54-year-old nulliparous postmenopausal woman presented with one week history of vaginal bleeding to our casualty at Government Mohankumaramangalam medical college. Her history was significant with menarche at 14 years of age, nulliparous, for which she underwent infertility treatment.

On admission, she was conscious oriented, afebrile, pale. Her vitals were stable. P/A revealed an uterine size of 16 weeks, P/V showed bleeding with uterus of size 16 weeks.

An ultrasound was done immediately which showed an enlarged uterus (13×6×10 cm) with complex echoes in the uterine cavity. The serum β-human chorionic gonadotropin (hCG) level was greater than 2,34,000 mIU/mL.

Chest x-ray and MRI Abdomen and pelvis was taken. No evidence of metastases.

Due to profuse bleeding, age in concern, she subsequently underwent an emergency total abdominal hysterectomy with bilateral salpingo-oophorectomy.

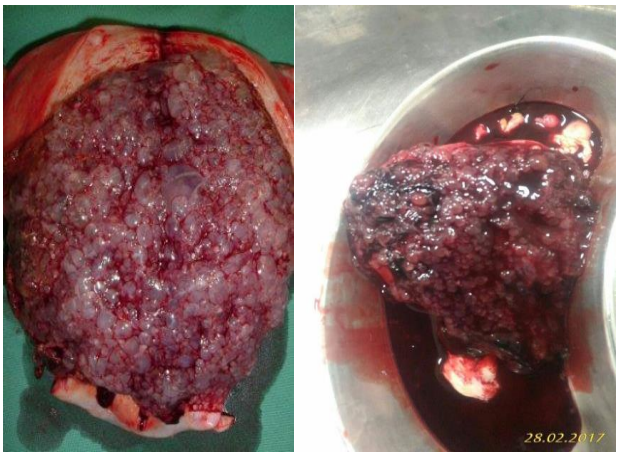

Figure 1: Shows cut section of uterus with vesicles.

Postoperative period was uneventful and serial Beta HCG was taken and we found a drop in her serum βhCG level to 1,60.000 mIU/ mL at first week and 45,544 mIU/Ml within one month of postoperative period and a negative workup for metastases, including chest radiograph and abdominal and pelvic computed tomographic scan.

Follow-up with quantitative serum β-hCG level testing was scheduled. Biopsy specimens consisted of multiple, tan, grapelike soft tissue fragments admixed with blood clots, measuring 15.0×9.5×3.4 cm in aggregate. The total abdominal hysterectomy specimen consisted of a 13.0×11.0×4.5-cm uterus with attached bilateral fallopian tubes and ovaries. Gross examination revealed an enlarged endometrial cavity containing blood clots and a fleshy, hemorrhagic, and edematous tissue with scanty grapelike clear vesicles measuring up to 0.2 cm in diameter. Microscopic examination of the endometrial biopsy specimens were consistent with hydatiform mole and the uterus revealed generalized hydropic villi with cisterns and circumferential proliferation of mildly atypical and hyperchromatic trophoblastic cells, which did not invade into the adjacent myometrium or blood vessels. Peritoneal washing revealed no evidence of malignant cells.

DISCUSSION

In the world literature, it is well established that the occurrence of GTD in women older than 50 years is rare, but it can occur.[6] Incidence of pregnancy in perimenopausal age group is low and may develop benign or malignant trophoblastic disease, whereas in postmenopausal women, GTD incidence is increased and is usually malignant.[7] Numerous studies support the fact that benign GTD is extremely rare in postmenopausal women. Patients in the sixth decade are not expected to be pregnant, and we may not even think of checking a β-hCG level. Therefore, the diagnosis of pregnancy moreover, hydatidiform mole may be missed overlooked and recognition is difficult.[8] On the other hand strictly speaking, GTD is not included in the diagnosis of postmenopausal bleed in this age group.

Here we diagnosed the case as myoma uterus but we never suspected it as hydatidiform mole. Hydatidiform mole presents with vaginal bleeding (58%), excessive uterine size (15%), anemia (2%), and hyperemesis (2%). Hydatidiform mole was diagnosed by ultrasound in 88% of the cases.[9] Gestational trophoblastic tumors hypersecrete β-hCG, and the serum level of the hormone is proportional to the volume of the tumor. This offers a diagnostic confirmation of GTD and represents a fundamental basis for the patient's follow-up. The hydatidiform mole can be complete or partial and represents a malformed placenta caused by genetic aberration of the villous trophoblast. The CHM shows generalized hydropic degeneration of the chorionic villi with circumferential proliferation of trophoblastic cells and no development of a fetus or embryo. Most complete moles are diploid, with a 46, XX karyotype. The partial hydatidiform mole consists of hydropic villi interspersed with normal chorionic villi and typically has a triploid karyotype. Both types of molar pregnancies can become invasive and involve the adjacent myometrium and/or the blood vessels.

Choriocarcinoma is a biphasic malignant proliferation of syncytiotrophoblastic cells and atypical cytotrophoblastic or intermediate trophoblastic cells, which exhibits marked nuclear pleomorphism. Placental-site

trophoblastic tumor is composed predominantly of polyhedral and vacuolated, multinucleated intermediate trophoblastic cells that infiltrate the myometrium with extensive deposition of fibrinoid material. Unlike the hydatidiform moles, choriocarcinomas and placental-site trophoblastic tumors lack chorionic villi. This differential diagnosis of GTD may be supported with the use of immunohistochemical markers. Human chorionic gonadotropin is diffusely positive in the syncytiotrophoblasts of the complete mole and choriocarcinoma, but focally positive in the placental-site trophoblastic tumor. Human placental lactogen is moderately positive in the syncytiotrophoblasts of the hydatidiform mole and strongly positive in the intermediate trophoblasts of the placental-site trophoblastic tumor, but negative to weakly positive in the choriocarcinoma. p57 is a useful immunohistochemical marker for differentiating molar from nonmolarhydropic villi. The reaction for p57 is positive in the cytotrophoblasts and villi mesenchyme of hydropic nonmolar abortions, but negative in hydropic moles.[10] p53 immunoreactivity is generally present in the extravillous intermediate trophoblasts of the complete moles, but absent in nonmolar pregnancies.[11]

The rarity of a molar pregnancy in a 54-year-old amenorrheic woman brings this patient's menopausal status into question. Menopause is clinically defined as the period that begins 12 months after the final episode of menstrual bleeding in women. One may not think of checking serum luteinizing hormone, follicle-stimulating hormone levels, estradiol levels in women older than 50 years with a 1-year history of amenorrhea. Hysterectomy gives her the advantage of simultaneous treatment and also decreases risk of postmolar GTD which is about 8-20%.Therefore a close follow-up with serum beta HCG is indicated.[12]

CONCLUSION

Even though hydatidiform mole is rare in women older than 50 years with a history of amenorrhea longer than 1 year, it can and does occur. Therefore, a high level of suspicion must be maintained in order to establish the correct diagnosis**.** Hence it should be included in the differential diagnosis of postmenopausal bleed to prevent a delay in diagnosis and treatment.

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