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CASE STUDY ON MOLAR PREGNANCY

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Abstract

Molar pregnancy is formed as a result of divergent fertilization process that leads to production of atypical tissue within the uterus. It categorized in two groups: partial and complete.

Complete mole involves absence of the embryo, where partial mole demonstrates presence of fetal parts. Molar pregnancy does not result in viable fetus, early detection and treatment is essential for positive outcome.

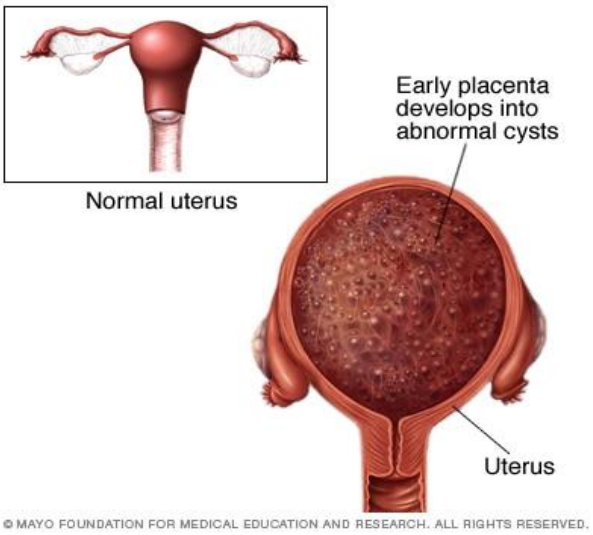
Patient has presented with typical signs and symptoms for molar pregnancy including vaginal spotting with dark brown grape like substance, law hemoglobin, fundal height greater then expected (as for gestational age), nausea and vomiting.

Molar pregnancies usually present with painless vaginal bleeding in the fourth to fifth months of pregnancy.[3] The uterus may be larger than expected, or the ovaries may be enlarged. There may also be more vomiting than would be expected (hyperemesis). Sometimes there is an increase in blood pressure along with protein in the urine. Blood tests will show very high levels of human chorionic gonadotropin (hCG).

KEY WORDS moles, hydatidiform moles, molar pregnancy

Introduction

Molar pregnancy is an abnormal form of pregnancy in which a non-viable fertilized egg implants in the uterus and will fail to come to term. A molar pregnancy is a gestational trophoblastic disease[1] which grows into a mass in the uterus that has swollen chorionic villi. These villi grow in clusters that resemble grapes.[2] A molar pregnancy can develop when a fertilized egg does not contain an original maternal nucleus. The products of conception may or may not contain fetal tissue. It is characterized by the presence of a hydatidiform mole (or hydatid mole, molahydatidosa).[3] Molar pregnancies are categorized as partial moles or complete moles, with the word mole being used to denote simply a clump of growing tissue, or a growth. Molar pregnancies usually present with painless vaginal bleeding in the fourth to fifth months of pregnancy.[3] The uterus may be larger than expected, or the ovaries may be enlarged. There may also be more vomiting than would be expected (hyperemesis). Sometimes there is an increase in blood pressure along with protein in the urine. Blood tests will show very high levels of human chorionic gonadotropin (hCG).



Case Report

A 29-year-old female patient reported to OBG outpatient department for annual examination during the initial interview she complained of very unusual menstrual bleeding, which began 5 days ago, patient has also reported abdominal cramping, nausea, vomiting and lower back pain. Patient admitted to be sexually active but was using calendar method as birth control. Her last menstrual period was exactly 5 weeks ago. Patients past medical and family history are unremarkable. She denied to have any allergies, denied drinking alcoholic beverages but admitted to be an active smoker; she currently smokes 0.5 packs of cigarettes per day. The patient was alert, oriented and in obvious distress. Her temperature was 98.6 F, blood pressure 119/64 mmHg, heart rate 123 bpm, respiratory rate of 16 breaths per min with a pulse oximetry of 98% on room air. On physical exam her skin was cool and clammy and patient's breathing was mildly labored, with thread peripheral pulses. Her fundal height was 2 cm below umbilicus. Abdomen was soft and mildly tender on lower quadrants bilaterally.. During Pelvic examination reported loose discharge of blood, clots and a large amount of brown-colored grapelike material. The cervical OS was dilated to approximately 2cm with some cervical motion tenderness.

After patient has been transferred to ER blood was collected and sent to lab for analysis, laboratory results as follows: hemoglobin of 8.6 g/dL, hematocrit of 7.5%, white blood count at 16,000 with 78% neutrophils and 5% bands, platelets at 123,000, international normalized ratio of 1.5, and bicarbonate of 14 mmol/L. Bun was elevated at 38 mg/dL and creatinine was 0.7 mg/dL. Beta HCG was 360,514 mIU/mL.

IV line was initiated; patient has received 1000 cc bolus of 0.9% of sodium chloride, which followed with infusion rate at 125 cc per hour. Case has been discussed with OB consult and Pelvic Sonogram was performed. Pelvic- sonogram reviled a cloud like image, with absence for heartbeat. Patient was transferred to OR rapidly and two units of crossed matched blood were infused. Dilatation and curettage was performed in OR.

Surgical pathology confirmed a complete hydatidiform mole. Patient's recovery was unremarkable; patient was discharged home after 48 hours. The patient was instructed on importance of using reliable method of birth control and monitoring of levels of HCG (first 48 hours post evacuation, weekly until hcg<5 miu/ml, then monthly X 6-12 months).

Discussion

Molar pregnancies are classified as nonviable conceptions and are medically termed hydatidiform moles [3]. They are masses of cysts or benign tumors with a grape-like appearance that grow rapidly in the womb [3]. The abnormality is caused by a problem at conception, manifested by an excessive presence of placenta with little or no fetal development [10].

Hydatidiform moles are the most common form of benign gestational trophoblastic disease [4]. Often fatal in past centuries, significant medical advances in recent years now permit most women with moles to be cured [6].

Depending on the imbalance of genetic material in the pregnancy, the two major types of hydatidiform moles are classified as either complete or partial [1].

Forming when the sperm fertilizes an egg having no chromosomal or genetic material, a complete molar pregnancy is characterized by the presence of the placenta without an embryo [3].

Normally, the fertilized ovum would die and not implant itself in the womb [3]. In rare instances, this egg implants, triggering the growth of the placenta and the production of human chorionic gonadotrophin (HCG), the pregnancy hormone, therefore all symptoms of pregnancy will be present [5].

Partial-molar pregnancies are formed when; a normal ovum is fertilized by two sperms [3-5]. Instead of forming twins, the excessive presence of chromosomal material and trophoblastic tissue prevents normal fetal development [3]. The fetus does not survive more than three months and dies in the uterus [5-7].

As moles are rare, epidemiological studies vary in reporting incidences [6]. Vassilakos [11] states that the frequencies of moles vary by race and occur more among Asian women. Age is a known factor as higher rates of moles occur in women over the age of 40 and under the age of 20 [4,5,8,11], as well as in women under 16 and over 50 [10].

Women with either mole type have symptoms of vaginal bleeding, nausea and vomiting, and can present hyperthyroidism or preeclampsia [1-5].

Routine first trimester ultrasound examination can identify partial or complete molar pregnancy. The most of cases present as missed pregnancy during ultrasonic examination [10]. Histopathological examinations of products of conception are presently gold standard for diagnosis of gestational molar pregnancy. Abnormally high HCG blood levels and overly large uterine size suggestive of molar pregnancy and will warrant further clinical evaluation [2].

After any medical complications have been addressed, a decision must e made concerning the best method of evacuation. Suction curettage is the optimal method of evacuation, regardless of uterine size, in patients who wish to retain reproductive function, because it carries a significantly lower risk of excessive bleeding, infection, and retained molar tissue then methods involving induction with oxytocin or prostaglandin. Rh immune globulin should be given to patient with RH conflict [7].

Patients are monitored to prevent the recurrence of benign moles and the development of malignant neoplasia, which can metastasize to the brain, liver or lungs [3]. Chest x-rays and the analysis of HCG levels for six months to one year are necessary [5]. Recurring moles are treated with methotrexate, a low-level chemotherapy [7].

Conclusion

The cause of molar pregnancy is unclear; however, there are several risk factors. Molar pregnancies occur at extremes of the childbearing age. For women over 40 years of age, there is a 10-fold increase, compared with only 1.3-fold increased risk in teenagers.[5] Other factors postulated to increase the risk of HM have included diet, gravidity, and contraception. Molar pregnancies are categorized as partial moles or complete moles, with the word mole being used to denote simply a clump of growing tissue, or a growth. Molar pregnancies usually present with painless vaginal bleeding in the fourth to fifth months of pregnancy.

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