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Molar Pregnancy in the Emergency Department

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CASE REPORT

A 15-year-old female presented to the emergency department with complaints of vaginal bleeding. She was pale, anxious, cool and clammy with tachycardic, thready peripheral pulses and hemoglobin of 2.4g/dL. Her abdomen was gravid appearing, approximately early to mid-second trimester in size. Pelvic examination revealed 2 cm open cervical os with spontaneous discharge of blood, clots and a copious amount of champagne-colored grapelike spongy material. After 2L boluses of normal saline and two units of crossmatched blood, patient was transported to the operating room. Surgical pathology confirmed a complete hydatidiform mole.


Figure 1. “Bag of grapes” appearance to a molar pregnancy

neutrophils and 4% bands, platelets at 133,000, international normalized ratio of 1.3, and bicarbonate of 12 mmol/L. Bun was elevated at 36 mg/dL and creatinine was 0.6 mg/dL. Free T4 was 2.79 ng/dL (normal range: 0.93-1.7) and TSH was 0.01 mcu/mL (normal range: 0.27-4.2). Beta HCG was 460,318 mIU/mL, 64 times the upper limit of normal for an estimated gestational age of a five-week fetus. EKG revealed sinus tachycardia.

Obstetrics was emergently consulted and the patient transported urgently to the operating room for dilation and evacuation of her molar pregnancy.

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curettage. While in the ED, the patient received 2L boluses of normal saline and two units of crossmatched blood. Surgical pathology confirmed a complete hydatidiform mole. The patient suffered postoperative complications including respiratory distress requiring intubation, cardiomyopathy (ejection fraction of 25%) and hyperthyroidism. She was medically managed in the intensive care unit and discharged one week later with improved ejection fraction, recovering thyroid function and no evidence of malignant gestational trophoblastic disease.

**DISCUSSION**

Hydatidiform mole (molar pregnancy) is a relatively rare complication of fertilization with an incidence in the United States of 0.63 to 1.1 per 1000 pregnancies, although rates vary geographically. It is included in the spectrum of gestational trophoblastic diseases and is comprised of both complete molar pregnancies (CM) and partial molar pregnancies (PM). Pathologically, CM demonstrate diffuse villous edema and trophoblastic proliferation with absence of a fetus, whereas with PM villous edema and trophoblastic proliferation are variable and the fetus typically demonstrates congenital abnormalities and growth retardation.

The most well characterized risk factor for CM is extreme of maternal age. Maternal ages less than 20 or greater than 40 years have been associated with relative risks for CM as high as 10- and 11-fold greater respectively. However, the majority of molar pregnancies occur within the 20-40 year range, as these represent the most common reproductive years. History of prior molar pregnancy is another important risk factor for both CM and PM, with repeat molar pregnancies occurring 0.6 to 2.6 percent of the time. Other potential risk factors include oral contraceptive use, maternal type A or AB blood groups, maternal smoking, and maternal alcohol abuse.

Molar pregnancy typically presents in the first trimester and may be associated with a wide array of findings, including vaginal bleeding (most common), uterine size larger than expected according to pregnancy date (CM), anemia, hyperemesis gravidum, theca lutein cysts, preeclampsia, and respiratory distress. β-hcg is a glycoprotein hormone structurally similar to thyroid-stimulating hormone, and for this reason many patients will present with clinical hyperthyroidism. This patient’s peripheral edema is most likely related to her significant peripartum cardiomyopathy, although differential diagnosis also includes preeclampsia, hyperthyroidism, high output failure, or a hypoalbuminemic state. Studies comparing modern clinical presentations of CM with historical presentations have demonstrated a significant reduction in many of the classic presenting signs and symptoms such as vaginal bleeding and excessive uterine size. This reduction is attributed to early detection by transvaginal ultrasound and increasingly sensitive β-hcg assays. Numerous studies evaluating the efficacy of ultrasound in detecting molar pregnancy demonstrate a 57-95 percent sensitivity for the detection of CM compared to only 18-49 percent sensitivity for PM.

This case is of particular interest due to its late presentation and classic features. It is unusual for this type of patient to expel diagnostic tissue in the ED, and it serves as a reminder that patients who delay medical attention may not present as expected.

**REFERENCES**