

# Molar pregnancy with multiple organ dysfunction, an interesting case report

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## ABSTRACT

Successful management and cure of gestational trophoblastic disease [GTD, molar ] depends upon prompt, accurate diagnosis and institution of individualized, therapeutic modalities. Because Molar pregnancies encompasses multitude of clinical entities, each with myriad presentations, clinicians must remain alert to identify patients exhibiting signs and symptoms consistent with GTD [molar]. Armed with a high index of suspicion, physicians may target such individuals and launch the appropriate diagnostic barrage, leading to triage for treatment early in the course of the disease. The disease if not diagnosed early may lead to complication such as, acute respiratory distress, cardiac failure, liver and renal failure. Intracranial bleeding and seizures complicated with infection and coagulation failure may lead to death of these young women. Little data are available to assist in the counselling of women with diagnosis and compulsory follow up. Appropriate contraception should be discussed and advise given before discharge as they may get lost to follow up. These women should be informed of the elevated risk of developing malignant sequelae in future.

**Keywords:** Diagnosis, molar pregnancy, complication- haemorrhage [respiratory, cardiac, renal, hepatic, intracranial] intensive care, counselling and follow up.

## CASE REPORT

S.H, an Ethiopian lady 19 years old, primigravida, was admitted through accident emergency as a case of 22 weeks pregnancy with vaginal bleeding and abdominal pain, for 3 days. She had no antenatal care in this pregnancy.

On examination she was conscious, looked very pale, and was very anxious. Her Pulse rate was 148/min, BP-146/90 mmhg, R/R-22/min. Abdominal examination revealed a uterine size of 28 weeks of pregnancy with no clear palpable fetal parts ,but a tense, tender abdomen.

Abdominal ultrasound examination revealed a storm pattern suggestive of molar pregnancy with no fetus. Vaginal examination found the cervical os to be open and there was evidence of vaginal bleeding ++. Examination of the cardiovascular, respiratory, and neurological system was

normal. An intravenous line was set up to gain access to a vein and blood samples were taken for full blood count, coagulation profile, BhCG level, liver function test, renal function test, thyroid function test, chest xray. She was reviewed by the medical and by the anaesthetist as an evacuation of the uterus was planned under general anaesthesia. Her hCG level was **202,657IU/ml**. Haemoglobin level was only **5.2gm/dl** and so she was started on blood before evacuation in operating theatre. She was also started on syntocinon 20 units in 500ml of normal saline. Evacuation of molar pregnancy was completed and specimen sent for histopathological examination. Misoprostol 800ug was given per rectal to maintain uterine contraction. Total blood loss was **2000ml**. 4 units of packed RBC, 4units of fresh frozen plasma and 6 units of platelets were given as the coagulation profile showed her to be in coagulation failure. The Liver function test results showed liver dysfunction with raised AST level -220 I.U, Bilirubin level raised-2.1mg. Urea and electrolytes were abnormal. Urea level **-85mg/dl**, serum creatinine **-1.8mg/dl**. An indwelling foleys catheter was inserted to measure urine output. There was no urine output for two hours and only after 3<sup>rd</sup> unit of blood and FFP, she started producing urine. Full blood count was repeated after blood transfusion. Her haemoglobin level came upto 8.3mg/dl and WBC count was **36,000/dl**. She was started on Tazocin 4.5gm 8 hourly to treat her septicemic condition.

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She was ventilated and transferred to ICU for observation and treatment.

In the **ICU** her condition deteriorated PR-140/min, BP-155/90mmhg, surgical emphysema on the right side of neck was noted, chest auscultation revealed bilateral basal crepts. Injection Lasix infusion at 5mg/hour was started. She was pyrexial **38°C** and she was ventilated to maintain acid base status and also oxygen saturation to 99%. On suction of the endotracheal tube there was frank blood and a diagnosis of pulmonary haemorrhage due to suspicion of underlying vasculitis. Bronchoscopy was done and blood was seen to be coming from both major bronchi. A decision to continue ventilation and support with PEEP was given by the anaesthetist. Further, her Thyroid function test revealed an underlying **thyrotoxic state** which may have induced by the molar pregnancy, she was started on Propylthiouracil 100mg twice daily to control her thyrotoxicosis.

After 15 hours of treatment still on the ventilator, she had a **generalised convulsion** and she was then sedated with intravenous Diazepam 5mg slowly and Injection dexamethasone 4mg was given. ABG showed improvement in PCO<sub>2</sub>, PO<sub>2</sub> saturation of O<sub>2</sub> and acid base status. The patient was reviewed by the interventionist and advised to extubate. After extubation she was given Lasix with fluid challenge and she started producing good amount of urine. LFT, U&E, FBC was repeated. LFT showed high **LDH-1666 I.U.**

After 18 hours of extubation, the respiratory rate gradually increased to 60-72/min and a repeat ABG showed **respiratory acidosis**. The patient was reventilated as she needed **ventilatory support** to maintain her acid base status. Her pulse rate was gradually increased to 180/min, so adenosine 6-12mg [2doses] given I/V to control her **supraventricular tachycardia**. BP was 155/90mmhg and temperature was 37.8°C and so blood cultures, and investigation for suspicion of underlying vasculitis [ANF, AntiDNA, CANCA, PANCA]. Chest Xray showed evidence of **pulmonary odema**. Injection Sodabicarb 50 ml IV and Lasix 5mg/hr was given slowly intravenously. Her medication were reviewed and antibiotics changed to Meropenem 1gm IV twice daily, Captopril 25mg three times daily, Ventocin 5mg by inhaler, Lineazolid 600mgI/V, Dexamethasone 2mg I/V, Lasix20mgI/V, Pantoprazol 40mgI/V, Clexane 40mg S/Cdaily, and anxiolytic Xanax 0.5mg PO at night.

Patient was sedated with Fentanyl 25-250mcg I/V infusion, Inj. Midazolam 1-10mg/hr and Paracetamol 1gmI/V PRN was given. Blood investigations were repeated which showed improvement. Renal and liver functions were improving. Coagulation profile was within acceptable limits. EEG and

ECHO were requested. She was extubated after 24 hours. EEG was normal and ECHO revealed **LVEF-30%, severe MR, moderate severe AR, moderate TR**. No intracardiac mass was visible. She was on fluid restriction, Lasix 40mgI/V BD, and sedated with Fentanyl 250mcg/hr and Dormicam 10mg/hr. A diagnosis of heart failure was established and ventilation with PEEP was continued. Injection Dobutamine 1mcg/hr and Isokit 1mcg/hr was started. The pulse rate, blood pressure and the general condition improved with antibiotics and ventilatory support. She received physiotherapy to chest, legs and care of back to prevent bedsores.

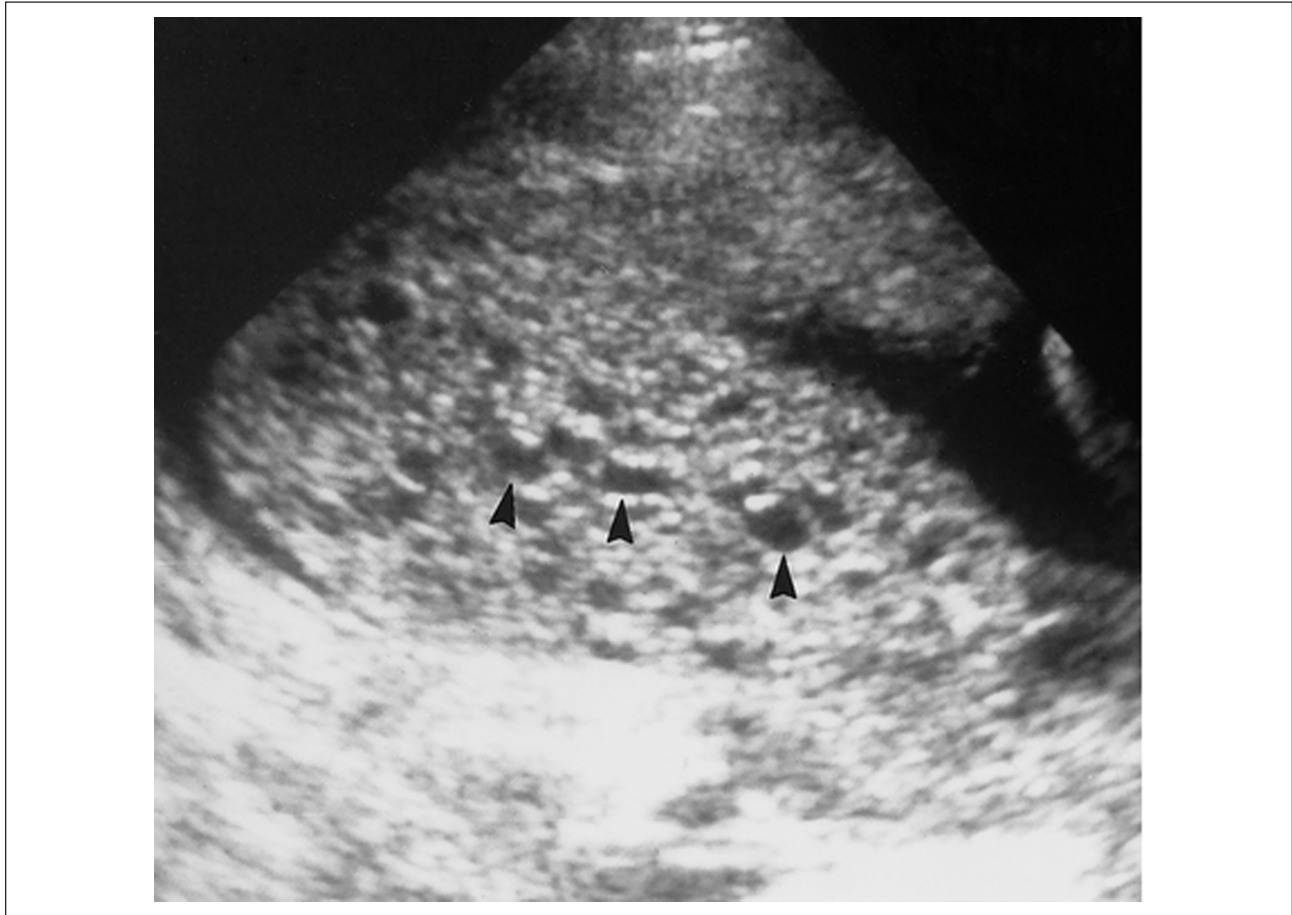
After 7 days of being on ventilatory support, she was finally extubated and the patient maintained her haemodynamic status and her WBC count came down to 9,6000/dl. There was good air entry on both sides of the chest. The **histopathology** of the specimen of evacuation of uterus showed it to be of **mature molar pregnancy with no evidence of malignancy**. Patient was shifted from ICU to a general ward and reviewed by endocrinologist for her thyrotoxicosis state, and she was started on Propanolol[10mg ] twice daily. All other antihypertensives were stopped as blood pressure was within acceptable range. After 7days post extubation she made a good recovery and left for home country.

## FINAL DIAGNOSIS

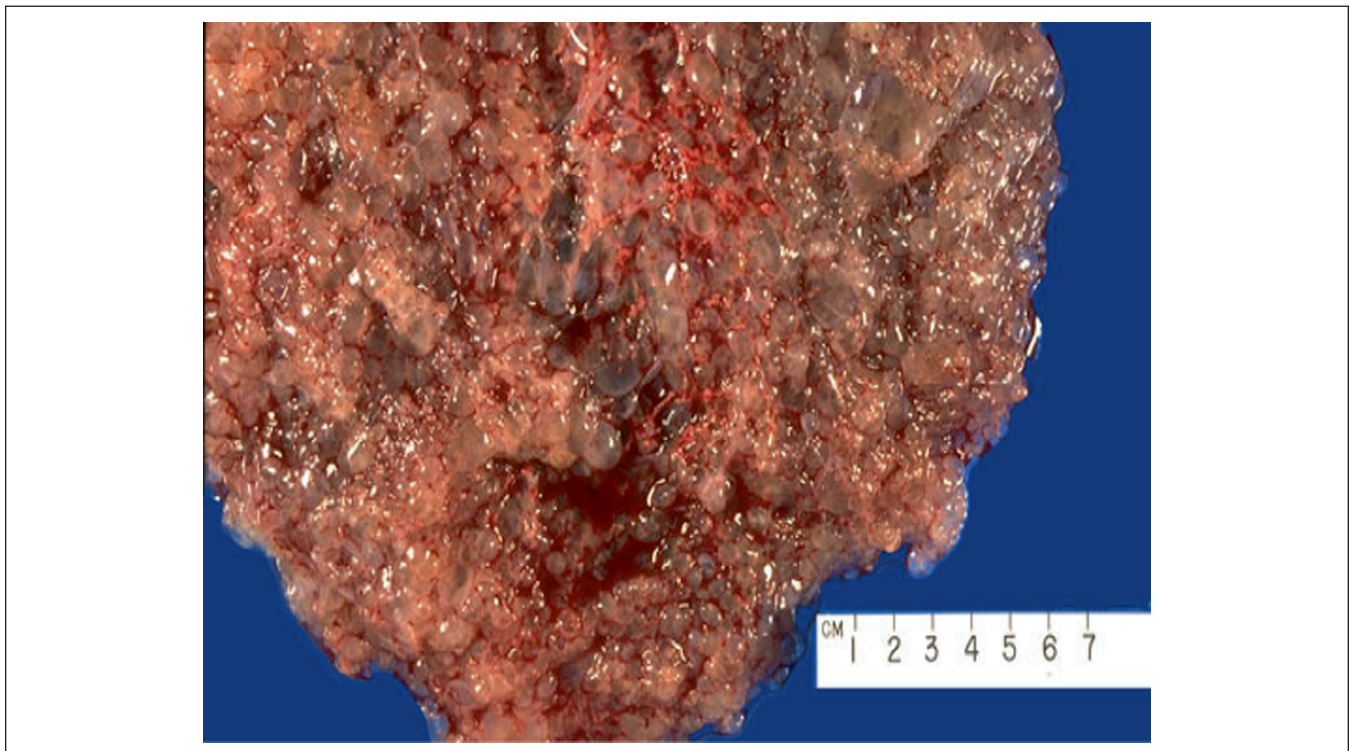
1. 25 weeks molar pregnancy.
2. Septicaemia.
3. multiple organ failure.[heart,lungs,renal]
4. Anaemia &Coagulation failure.
5. Generalised convulsions.

## DISCUSSION

Hydatiform moles are a common complication of pregnancy, occurring once in every 1000 pregnancies in the US, with much higher rates in Asia [eg. upto one in 100 pregnancies in Indonesia<sup>1</sup> Most molar pregnancies usually present with painless vaginal bleeding [89-97%] in the fourth and fifth month of pregnancy<sup>1</sup> and present with symptomatic anaemia.<sup>5</sup> The uterus may be larger than expected, or the ovaries may be enlarged and sometimes there is an increase in the blood pressure along with protein in the urine and develop very early preeclampsia. Blood test will show very high levels of human gonadotrophin [hCG].<sup>2</sup> The diagnosis is strongly suggested by ultrasound but definite diagnosis requires histopathological examination. The mole grossly represents a bunch of grapes [cluster of grapes, honeycomb uterus or snow storm appearance<sup>3</sup> There is increased trophoblastic proliferation and enlarging of the chorionic villi<sup>4</sup> Angiogenesis in the trophoblasts is



**Figure 1:** Scan picture of molar pregnancy



**Figure 2:** Molar pregnancy specimen on suction evacuation

impaired as well.<sup>4</sup> Sometimes symptoms of hyperthyroidism are seen, due to extremely high levels of hCG which can mimic the thyroid stimulating hormone [TSH]. Conflicting evidence exists with respect to whether hCG is the thyrotropic factor responsible for stimulating thyrotoxicosis.<sup>6,7</sup>

Pulmonary insufficiency is associated with about 2% of cases of complete hydatidiform mole.<sup>8,9</sup> In these cases, acute respiratory distress occurs after molar evacuation and is almost invariably associated with marked uterine enlargement, or trophoblastic embolisation, and also due to pulmonary haemorrhage.<sup>10</sup> Extensive pulmonary disease leads in some cases to cardiac enlargement and prominent pulmonary congestion as a result due to acute *cor pulmonale*. Other conditions include high output cardiac failure secondary to anaemia and hyperthyroidism, eclampsia or fluid overload.<sup>8</sup> Intensive care unit support and assisted ventilation may be required. Fever or evidence of a bleeding diathesis should be investigated which is present because of uterine infection and disseminated intravascular coagulation are variably associated with molar pregnancy. Catastrophic haemorrhagic events may provide the initial presentation, vaginally or pulmonary, intracranial or gastrointestinal, or malena or sudden collapse and loss of consciousness.

Early and proper diagnosis, hCG, ultrasound, evacuation of the molar pregnancy, histopathology, transfusion to correct anaemia and intravascular coagulation is of utmost importance. Ventilatory support, cardiac failure correction and treatment of septicaemia are the supportive treatment required until recovery.<sup>11</sup> Follow up is advised strictly, and contraception advised to prevent confusion between normal pregnancy and recurrent molar pregnancy. In summary

[GTD] may present in an unlimited number of ways. Astute clinician should be able to secure the diagnosis if it is considered and appropriate history, examination, laboratory, radiological and pathological techniques are employed.

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