

Metastatic hydatidiform invasive mole in lung presenting as massive hemothorax : A case report

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ABSTRACT

We report a case of invasive metastatic hydatidiform mole on lung with clinical/radiological signs of massive hemothorax, solved with urgent thoracotomy.

A 30-year-old woman, nulliparous, was accepted to Gynecologic Clinic because of a planned operation of pelvic tumor. State after endometrial curettage. It is diagnosed as mola hydatidosa. It is evacuated hemorrhagic fluid after pleural puncture. Thoracic Computed Tomography (CT)-scan reveals a great massive shadow with right compressive atelectasis of right lung. Urgent right thoracotomy solves massive clots and fresh hemorrhage. In lower right lobe it's seen hemorrhagic tumor with dimension 3 cm × 2 cm and one smaller subpleural-1 cm × 1 cm, both excised with wedge resection. Pathological finding revealed invasive hydatidiform mole.

Conclusion: Bleeding from metastatic hydatidiform mole from lung should be solving with surgical correction, and corresponding therapy for metastatic disease and careful surveillance of gynecologic problems.

Keywords: massive hemothorax, metastatic invasive hydatidiform mole, lung metastasis

INTRODUCTION

Mola hydatidiformis is a gestational trophoblastic disease. Mola hydatidiformis is the disease of placenta where it is found to be a degenerative and proliferative processes in the placenta and particularly in part which has origin fetus. Hydatidiform Mole (HM) is also known as a molar pregnancy. Malignant disorder of gestational trophoblastic disease is invasive mole, choriocarcinoma and rare placental-site trophoblastic tumour [1]. HM may develop into invasive moles in 10 % to 15 % of cases.

Massive hemothorax is usually reported due to penetrant, blunt thoracic trauma or rare iatrogenic injury to the chest [2]. Very rare it is reported due to spontaneous pneumothoraces. Other causes vary from neoplastic diseases, pulmonary infarction, infection disorders (specific agents), intrathoracic aneurysm, anticoagulant therapy, arterio-venous malformations [3, 4]. Here, we are presented a rare case of massive hemothorax due to metastatic hemorrhagic mola hydatidiformis in lung [5].

CASE PRESENTATION

A 30 year-old woman, nulliparous, admitted at Gynecologic Clinic for elective operation of undiagnosed pelvic tumor. Sonographically it appears as heterogenic structure with dimension 10⁵ × 77 mm (Figure 1). State after four-fold recurettage of endometrium and diagnosed hydatidiform mole one month before.

Physical examination revealed general severe condition, pale skin, cold sweating, slight hypotension with blood pressure: 100/70 Hg, continual small amount of hemorrhage from endometrium (hematometra), dispneic, with pulse rate of 99/min. Breath sounds in right apex and hilar region has decreased. Hematologic parameters: RBC: 2.50 × 10¹²/L; WBC: 13.8 × 10⁹/L; Hematocrite: 20.5 and Hemoglobin: 67 g/L.

Pleural puncture revealed defibrinate blood, and tube chest drainage evacuate amount of 1000 cc of blood, with continual bleeding with 200 ml/hour during two hours. To patient has given 4 units of blood and volume expanders during several hours. CT scan revealed compressive atelectasis and small amount of air on right hemithorax which suggest massive hemothorax (Figure 2). Urgent thoracotomy was undertaken. There were evacuating 900 cc of clots and small amount of fresh blood. During surgery, two solitary lesions were noted on parenchyma of lung. One: 3

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cm × 2 cm in right lower lobe which was bleeding actively and lesions were performed (Figure 3 and 4). Serum level of Human one subpleurally in same lobe: 2 cm × 1 cm. Wedge resection of Chorionic Gonadotropine (hCG) values 2.40 U/L.



Fig. 1. Invasive mole in fundus uteri. abdominal sonography

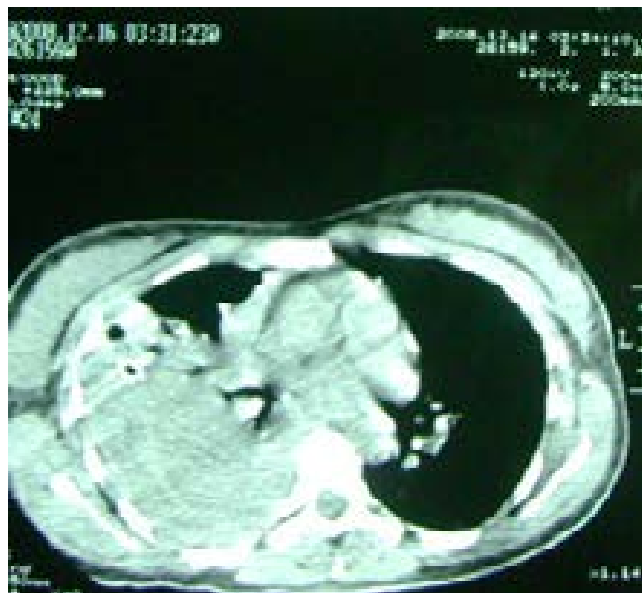


Fig. 2. CT scan of massive hemothorax in right chest

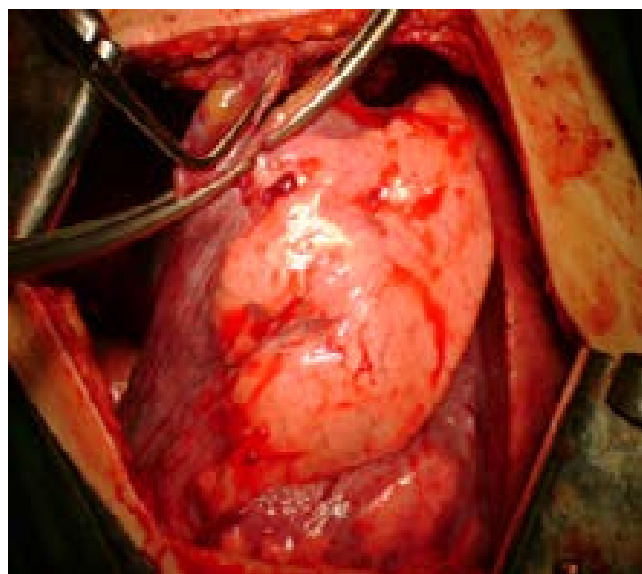


Fig. 3. Metastatic mole in lung

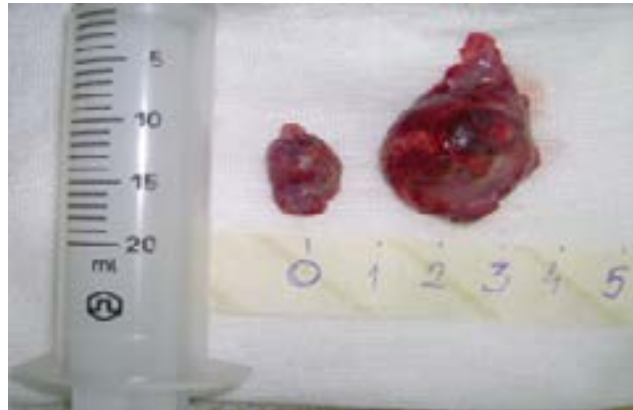


Fig. 4. Specimens of metastatic mole in lung

Histopathological report confirmed metastatic hydatidiform mole. Postoperative course went well, with expanding of right lung.

After postoperative recovery, patient were transferred to Gynecologic Clinic where is repeated the endometrial curettage and it is started chemotherapy with methotrexate. Pelvic tumor is planned as elective operation after chemotherapy. Two months later, after repeated Imaging with Magnetic Resonance (IMR) it is shown

the bigger uterus with tumor formation in myometrial fundus and uterine corpus-left, which corresponds to invasive hydatidiform mole with central necrosis and hemorrhage.

During treatment with suprapubical transversal laparotomy it is extirpated tumor from fundus uteri. Pathological findings revealed invasive hydatidiform mole FIGO st. III, WHO score 10. Patient were released from hospital with advice for repeating beta hCG weekly. It is con-traindicated pregnancy during next two years (Figure 5).



Fig. 5. Chest X-ray after operation

PATHOLOGICAL FINDINGS

Gross findings

Specimen consisted of two pieces of removed nodules on lung. The first piece is with dimensions: 4 cm × 2.5 cm × 1.5 cm. The tumoral nodus were well marginated, with gray-brown color, also with focuses of necrosis and hemorrhage. It great diameter mea-

sured 2.8 cm. Second piece measured 2 cm × 1 cm × 0.7 cm with same feature as first one.

Histological findings (Figure 6 and 7). Tumoral nodes were built from enlarged cystic molar vile, nonvascularised and with signs of trophoblastic hiperplasion. It is seen fields with trophoblastic and sinciotrophoblastic cells and also focuses with hemorrhage and necrosis. Tumoral nodes were surrounded with lung tissue.

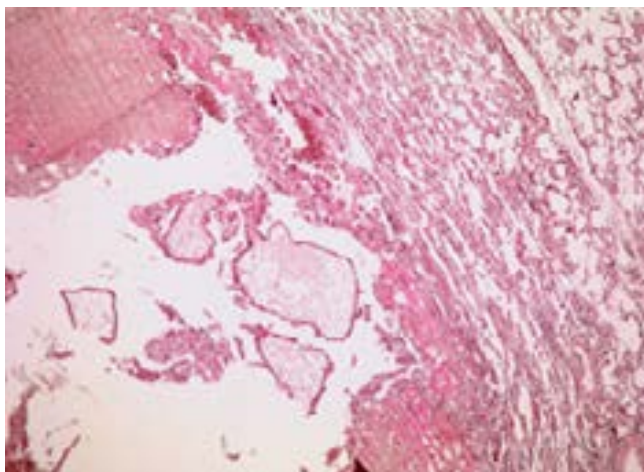


Fig. 6. Histopathological view of specimen where is seen lung issue

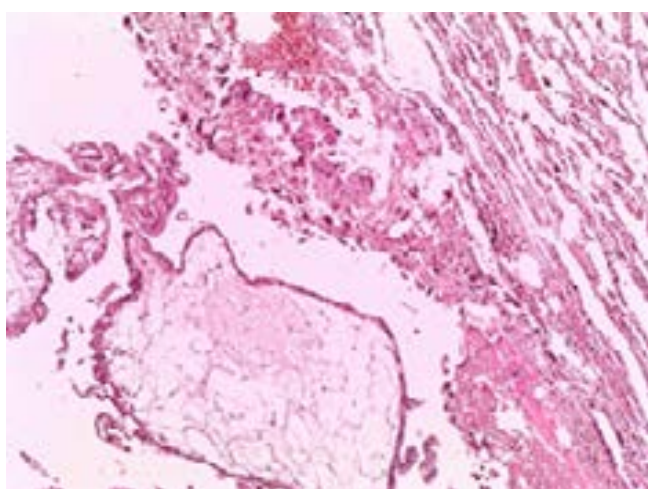


Fig. 7. Cytotrophoblast and syncytiotrophoblast

Comment

Histologic features correspond to Metastatic hydatidiform mole in lung.

Tumor from fundus uteri histopathologically is describe as invasive hydatidiform mole FIGO st. III, WHO score 10 (Figure 1).

DISCUSSION

This tumor is usually seen after age of 40. The most frequent symptoms of metastatic hydatidiform mole usually are chest pain, cough, dyspnea and hemoptysis [6]. A total of 10%-17% of Hydatidiform mole result in an invasive mole and approximately 15% of these metastasize to the lung or vagina [7, 8]. Also the lung is the most frequent site for metastasis of malignant trophoblast [4]. The lungs consist of a meshwork of delicate membranes that easily entrap tumor cells which can readily draw on nearby oxygenated air for sustenance [5]. A chest x-ray is done to see whether the mole has become cancerous (choriocarcinoma) and spread to the lungs. From 37 cases with Hydatidiform mole, CT scan of the chest revealed 11 cases with lung metastasis, accounting 30% [9]. The incidence rates of hemothorax were 2.6% at choriocarcinoma and 1.4% at invasive mole in the series of 32 hemothorax according to Yang [6]. It is also reported pneumothorax at women with metastatic placental

site trophoblastic tumor [10]. Once Hydatidiform mole is diagnosed, evacuation should be performed as soon as possible, because of threatening from lung metastasis and risks from chemotherapy [9].

After surgery, the level of human chorionic gonadotropin as biomarker in the blood should measure to determine whether the hydatidiform mole was completely removed. When removal is complete, the level returns to normal, usually within 10 weeks, and remains normal. If the level does not return to normal (called persistent disease), Computed Tomography (CT) of the brain, chest, abdomen, and pelvis is done to determine whether chorio-carcinoma has developed and spread [11]. For choriocarcinoma, slowly decreasing of beta-hCG from 10 IU/L to 2 IU/L is a high risk for chemoresistance, and it is an indication for thoracotomy. Progression of disease after multiple chemotherapy courses should be treated with lung lobectomy [12-15].

CONCLUSION

Bleeding from metastatic hydatidiform mole from lung should be solving with surgical correction, and corresponding therapy for metastatic disease and careful surveillance of gynecologic problems.

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