

# PATIENTS WITH METASTATIC GESTATIONAL TROPHOBLASTIC NEOPLASMS AND NO GYNECOLOGICAL SYMPTOMS

F. Ghaemmaghami<sup>1\*</sup> and T. Ashraf Ganjoie<sup>2</sup>

1) Department of Gynecology Oncology, Vali-e-Asr Reproductive Health Research Center, Imam Khomeini Hospital, School of Medicine, Medical Sciences/ University of Tehran, Tehran, Iran

2) Department of Gynecology Oncology, Afzalipour Hospital, School of Medicine, Kerman University of Medical Sciences, Kerman, Iran

**Abstract-** Early recognition of Gestational Trophoblastic Neoplasm (GTN) will maximize the chances of cure with chemotherapy but some patients present with many different symptoms months or even years after the causative pregnancy making diagnosis difficult. Clinicians should be aware of the possibility of GTN in any reproductive age woman with bizarre central nervous system, gastrointestinal, pulmonary symptoms or radiographic evidence of metastatic tumor of unknown primary origin. We reported five cases of metastatic gestational trophoblastic neoplasms with bizarre pulmonary symptoms, acute abdomen, neurologic symptoms presenting without gynecological symptoms.

© 2008 Tehran University of Medical Sciences. All rights reserved.

*Acta Medica Iranica*, 46(1): 79-82; 2008

**Key words:** Gestational trophoblastic neoplasms, mole, invasive mole, choriocarcinoma

## INTRODUCTION

Gestational trophoblastic neoplasm (GTN) represent a spectrum of pathologic and clinical alterations, ranging from molar pregnancy to metastatic gestational trophoblastic neoplasm (1) Locally invasive GTN develops in patients after the evacuation of a molar pregnancy; it infrequently develops after normal pregnancies, ectopic pregnancies, and abortions (1,2). It may perforate the myometrium or invade uterine vessels, causing intraperitoneal and vaginal bleeding, respectively (3). Metastatic tumors develop after a complete molar pregnancy, but they are more common after nonmolar pregnancies (4). The most common sites

of GTN metastasis are the lungs, vagina, pelvic, liver, and brain(5). Trophoblastic tumors are highly vascular and prone to severe hemorrhage, either spontaneously or during biopsy (6). Patients with pulmonary metastases may have hemoptysis, dyspnea, chest pain, bloody effusion and hypovolemia . Because respiratory symptoms and radiologic finding may be dramatic, the patient may be thought to have primary pulmonary disease. Regrettably, the diagnosis of GTN may be confirmed only after thoracotomy has been performed, particularly in patients with a nonmolar antecedent pregnancy (7). Acute intracranial hemorrhage is another rare presentation of metastatic GTN leading to sudden collapse and loss of consciousness(8-9). In Patients with GTN, gynecological symptoms are sometimes ignored, attributed to normal peripartum or postabortal state, or are not appreciated by non-gynecologists and may be presented by non-classic manifestations. We have described five cases of metastatic GTN initially presented with unusual symptoms and did response to treatment.

Received 3 Jan. 2006 Revised: 16 Oct. 2006, Accepted: 18 Dec. 2006

**\* Corresponding Author:**

Fatemeh Ghaemmaghami, Department of Gynecology Oncology, School of Medicine, Medical Sciences/University of Tehran, Tehran, Iran

Tel: +98 21 66939320

Fax: +98 21 66937321

E-mail: valrec2@yahoo.com

### Case 1

A 30-year-old Afghanian patient, referred to infectious ward with suspicious of tuberculosis and anti tuberculosis treatment resistant. Tuberculosis was rolled out but  $\beta$ -HCG (human chorion gonadotrophin) was positive on work up. She had a history of a molar pregnancy in 3 years ago. Chest x-ray, abdominopelvic CT-scan and brain CT-scan revealed lung, adrenal, and brain metastases (Fig.1). She received combination chemotherapy and has remained in remission for 9 years.

### Case 2

A 53-year-old female, primarily admitted to the department of thoracosurgery due to pulmonary symptoms and large mass in chest X-ray. She underwent right pulmonary lobectomy. The histological findings were consistent with choriocarcinoma. She had a history of an abortion 6 years ago. On work up she revealed multiple lung metastases and brain involvement. The patient underwent treatment with high dose combination chemotherapy and concurrent whole brain irradiation. At a follow-up of 4 years, there were no signs of relapse and the patient was well.

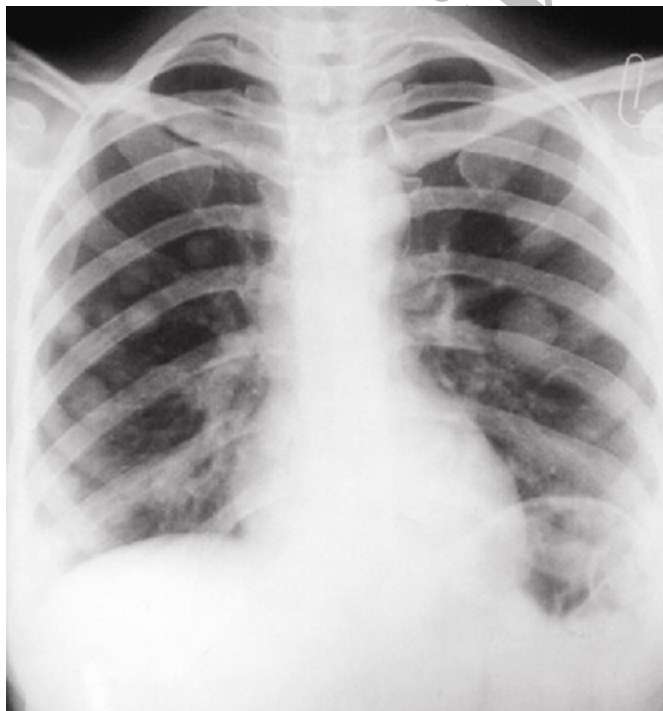


Fig. 1. Pulmonary Metastases (case 1)

### Case 3

A 41-year-old female patient: was admitted to the general surgery ward with acute abdomen and suspicion of internal hemorrhage due to gastrointestinal perforation, she underwent an emergency laparotomy. Intra-abdominal organs exploration showed uterine perforation. The patient then underwent a total hysterectomy. The histologic examination revealed invasive gestational trophoblastic neoplasm. The patient was referred to the gynecologic oncology ward for further management. After chemotherapy at a follow-up of 3 years, there were no signs of relapse and the patient was well.

### Case 4

A 22 years old female patient was admitted to the infectious diseases department with presumptive diagnosis of encephalitis and symptoms of convulsion, unconsciousness and left side paresis. The pregnancy test was positive but a sonography did not show gestational sac. Brain CT-scan was performed which showed multiple metastatic lesions in brain. She was transferred to gynecologic oncology department for further management. She received combination chemotherapy and concurrent whole brain radiation therapy. After she completed treatment plan she is alive without evidence of disease 2 years after treatment.

### Case 5

A 33 years old female was primarily admitted to the department of Neurosurgery due to left sided hemiparesis following headache. MRI was reported as hemorrhagic tumor in right parietal lobe with significant mass effect and surrounding edema (Fig. 2). She underwent parasagittal craniotomy and resection of tumor. The tumor had 4 cm diameter, and microscopically was metastatic choriocarcinoma. The patient had a history of molar pregnancy 8 months prior and underwent curettage. On work up she revealed multiple lung metastases and right kidney involvement on CT-scan and she underwent treatment with high dose combination chemotherapy and concurrent whole brain irradiation. Now it is about 2 years after the last course of chemotherapy and the patient is doing well without evidence of recurrence.

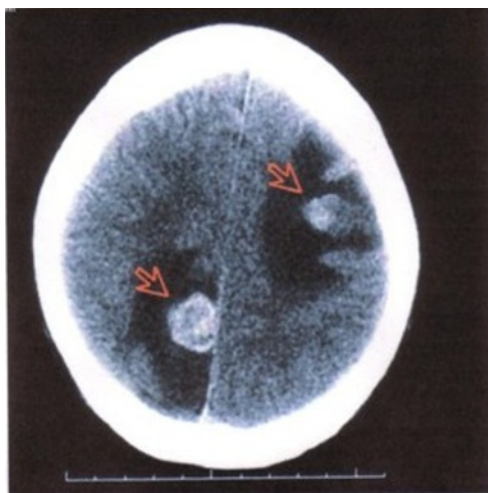


Fig. 2. MRI with brain metastases of GTN ( case 5)

## DISCUSSION

Metastatic Gestational Trophoblastic Neoplasm has a propensity for early vascular invasion and dissemination. Patients may present with signs and symptoms of bleeding from metastases such as hemoptysis, hepatic rupture or acute neurological deficits. Metastases from GTN tend to be highly vascular and have a tendency toward central necrosis and hemorrhage; therefore, surgery can be used in patients who are resistant to chemotherapy or hemorrhagic cases (5,6,10).

GTN is extremely responsive to chemotherapy therefore, chemotherapy is the main modality of treatment in patient with GTN even in its metastatic forms (4). Gestational trophoblastic disease is potentially curable. The overall cure rate is reported to be 90-100% (11). GTN is radiosensitive, because radiation has hemostatic and tumorocidal effect on GTN. Therefore, radiotherapy can be used in treatment of some patients with brain, hepatic metastasis or in patients who chemotherapy is not possible due to medical problems (12).

So GTN may present in an unlimited number of ways. Clinicians should be able to secure the diagnosis if it is considered and appropriate history, examination, laboratory, radiological and pathological techniques are employed. Clinicians should be aware of the possibility of GTN in any reproductive age woman with bizarre central nervous system symptoms, postpartum cerebrovascular

accidents or radiographic evidence of metastatic tumor of unknown primary origin. In these instances, a simple serum b.HCG determination may be life-saving. Effective use of b-HCG assay and therapy for individualizing the identified risk factors, the aggressive use of multi-agent chemotherapy and irradiation, and surgical intervention are the major contributing factors.

## REFERENCES

- Balagopal PG, Pande M, Chandramohan K, Somanathan T, Kumar A: Unusual presentation of choriocarcinoma. *World J Surg Oncol.* 2003; P.1.
- Berkowitz RS, Goldstein DP. Presentation and management of molar pregnancy. In: Hancock BW, Newlands ES, Berkowitz RS, editors. *Gestational trophoblastic disease.* London: Chapman and Hall. 1997; P.127-146.
- Berkowitz RS, Goldstein DP. The management of molar pregnancy and gestational trophoblastic tumors. In: Knappe RC, Berkowitz RS, editors. *Gynecol Oncol.* 3rd ed. New York: McGraw-Hill. 1993; P.328-338.
- Ghaemmaghami F, Sohrabvand M, Ayatollahi H, Modarres M. Successful treatment of colon metastatic patient with GTN. *J Obstet Gynecol.* 2005; 5(25): 735-737.
- Ghaemmaghami F, Ashraf Ganjoie T. Gestational trophoblastic neoplasia. *Asia Pacific Journal Oncology.* 2006; 2:9-21.
- Newlands ES. The management of recurrent and drug-resistant Gestational trophoblastic neoplasia (GTN). *Best Prac Res Clin Obstet Gynecol.* 2003; 17(6):905-923.
- Hammond CB, Weed JC, Currie JL. The role of operation in the current therapy of gestational trophoblastic disease. *Am J Obstet Gynecol.* 1980; 136:844-858.
- Ghaemmaghami F, N. Behtash, Ayatollahi H & P. Hanjani. Successful treatment of two gestational trophoblastic neoplasm presenting with emergent neurologic symptoms. *Int J Gynecol Cancer.* 2006; 16:884-943.
- Ghaemmaghami F, Behtash N, Memarpour N, Soleimani K, Hanjani P, Hashemi FA. Evaluation and management of brain metastatic patients with high-risk gestational Trophoblastic tumors. *Int J Gynecol Cancer.* 2004; 14: 966-971.

**Patients with metastatic gestational trophoblastic ...**

10. Galloway Sw, Yeung EC, Lan JY, Chung SC: Laparoscopic gastric resection for bleeding metastatic choriocarcinoma. *Surg Endo* 2001;15:100.
11. Ghaemmaghami F, Behtash N, Soleimani KH, Hanjani P. Management of patients with metastatic gestational Trophoblastic tumor. *Gynecol Oncol.* 2004; 94: 187–190.
12. Small W Jr, Lurain JR, Shetty RM, et al: Gestational trophoblastic disease metastatic to the brain. *Radiology.* 1996; 200: 277-280.

Archive of SID