UNUSUAL PRESENTATION OF GESTATIONAL TROPHOBLASTIC DISEASE

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ABSTRACT

Gestational trophoblastic neoplasia (GTN) is an uncommon complication of pregnancy which can follow any gestational event, molar pregnancy, normal pregnancy, miscarriage or even ectopic pregnancy. Its incidence is high in the region of South East Asia. The curability of GTD is a milestone of success in the history of medicine however we still face challenges in diagnosis & treatment due to myriad of its clinical presentations. The case under discussion is of a patient who presented with unusual symptoms of GTD which posed a diagnostic dilemma but was effectively managed in a tertiary care setting conserving her future fertility and quality of life.

Keywords: Choriocarcinoma, Gestational trophoblastic neoplasia, Molar pregnancy.

INTRODUCTION

Gestational trophoblastic disease is a group of disorders caused by the overgrowth of placental tissue and is defined as the spectrum of disease that has at one extreme the benign hydatidiform mole which could be complete or partial mole, the locally Invasive mole, Placental site trophoblastic tumor, Gestational trophoblastic neoplasia and at the other end, the highly malignant Choriocarcinoma, based on genetic and histopathological features[1]. Gestational trophoblastic neoplasia (GTN) is a collective term for gestational trophoblastic diseases that invade locally or metastasize. GTN are diagnosed when the serum hCG levels plateau or rise in patients being observed after the treatment of hydatidiform mole. Worldwide the incidence of gestational trophoblastic disease varies with highest incidence in the region of Asia, Middle-East and Africa[2] which might be attributed to ethnicity, cultural norms, and dietary habits or may reflect genetic influences. Previous molar pregnancy has a 10 times higher risk of developing future molar pregnancy[3]. Pakistan has an incidence of 4.06/1000 pregnancies[4]. Maternal age is the most consistent risk factor for GTD with high incidence at the extremes of reproductive life[5]. The classic features of molar pregnancy are irregular vaginal bleeding, hyperemesis, excessive uterine enlargement and early failed pregnancy[1]. The case under discussion presented with persistent post-partum vaginal bleeding and respiratory tract symptoms for which she was evaluated.

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CASE REPORT

Twenty Two years old female P2A1L2 was referred from a peripheral hospital with complaints of vaginal bleeding with passage of clots for the last three months after delivering a baby by spontaneous vertex delivery, cough and vomiting for the last two weeks. On twenty seventh post-natal day she had an episode of heavy vaginal bleeding with passage of clots after which she collapsed. She was given symptomatic treatment and underwent Suction and Curettage twice with the hope to control her bleeding and to remove retained products of conception. Unfortunately no histopathology of the retained products was available. Medical and surgical treatment failed in improving her symptoms and she continued to bleed for which she was transfused four units of blood to correct her anemia. Thereafter she developed dry, non-productive cough and difficulty in breathing. She also had a history of 8Kg weight loss and decreased appetite and vomiting for 3 months. She had no significant past, present, drug, family or occupational history.

On examination her BMI was 17 Kg/m², pulse 86/min, BP 110/70 mmHg and respiratory rate 20/min. There was mild pallor however no cyanosis, tremors, sweating, clubbing, lymphadenopathy or thyroid enlargement was observed. Her abdominal examination was unremarkable. Bimanual pelvic examination revealed anteverted mobile non tender uterus of 10 weeks and fornixes were clear. Chest examination revealed harsh vesicular breathing. Rest of the systemic examination was un-remarkable. Complete blood count was normal except Hemoglobin 10 g/dl , normal coagulation profile and renal function tests, Serum ALT 71 (0-35), S.ALP 477 (65-306), TSH 0.008 (0.4-4.5), Serum β HCG 1000000miu/l.

Chest X-rays fig-1 showed Multiple, Well-defined, rounded, soft-tissue density opacities of various sizes noted in both lung fields suggestive of Metastatic Disease.

Serial Pelvic ultrasounds revealed thickened endometrium and increased vascularity of parametrial vessels (fig-2).

CECT - Scan (Chest / Abdomen / Pelvis) revealed enlarged uterus, widened endometrial cavity with hypo attenuating areas within the endometrial cavity and uterine wall. There was a left adnexal cystic lesion (Theca Lutein Cyst) 3.5×3.8×4.2cm (fig-3).

Based on clinical history, investigations, and characteristic metastatic lesion on CECT Chest, in the background of gestation a final diagnosis of Metastatic Gestational Trophoblastic Disease, Choriocarcinoma with FIGO Stage III & FIGO Prognostic score 11 (high risk) was made.

With health optimization, nutritional intervention and supportive treatment the patient was stabilized and was discussed in a "Tumor Board Meeting" and was planned for Multi-Drug Chemotherapy. The patient and her family were counselled in detail. After Pre-Chemotherapy Workup, Multidrug Chemotherapy (Etoposide, Methotrexate, Actinomycin - D, Cyclo-phosphamide, Oncovin / Vincristine) was started and the patient was regularly monitored by CBCs, LFTs, RFTs and Serum β HCG. Serum β HCG showed a declining trend with progressive Chemo cycles (table).

The patient was discharged after 1st Chemotherapy Cycle with detailed counselling and was treated as an outdoor case. Chemotherapy was continued till the attainment of three Negative Serum β HCG levels. Patient is still being followed up meticulously both clinically and with Serum β HCG. She was advised to practice effective contraception for at least two years and to repeat Serum TSH levels after 6 months.

Table: Declining pattern of serum β hCG levels after chemotherapy cycles.

Before EMA-CO (9-8-16)	After 1st CYCLE (15-8-16)	After 2nd CYCLE (30-8-16)	After 3rd CYCLE (29-9-16)	After 4th CYCLE (18-10-16)	After 5th CYCLE (22-11-16)	After 6th CYCLE (14-12-16)	After 7th CYCLE (20-1-17)	After 8th CYCLE (18-2-17)
1000000 mlU/ml	217550 mlU/ml	2876 mlU/ml	146 mlU/ml	19.9 mlU/ml	10 mlU/ml	<5 mlU/ml	1 mlU/ml	0.1 mlU/ml

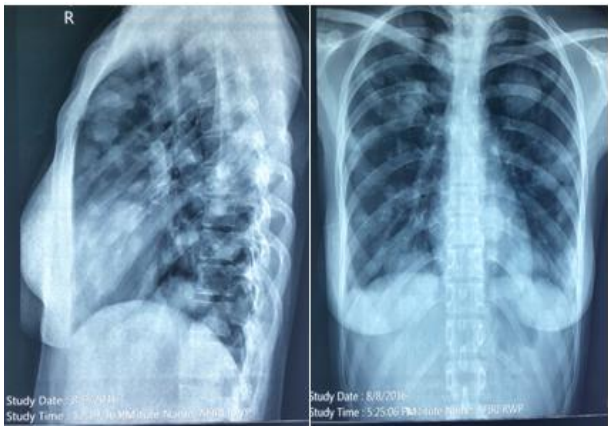

Figure-1: Multiple well rounded opacities in both lungs.

DISCUSSION

Choriocarcinoma after child birth is a rare complication with an incidence of 1 in 50,000 live births[6] and carries worse prognosis than after

a miscarriage[7]. The rare occurrence of choriocarcinoma after a live birth or non-molar abortion often leads to symptoms and signs of this disease being ignored. Because it is uncommon the clinician's index of suspicion is markedly diminished after a term pregnancy resulting in protracted delay in diagnosis. This may lead to advanced disseminated disease with extensive involvement of vital organs. The diagnosis of choriocarcinoma should therefore be considered in any women in the reproductive age group presenting with abnormal vaginal bleeding or unexplained systemic symptoms[8]. In a study conducted at Bolan Medical Collage Hospital, Quetta 31.1% of the patients presented with excessive uterine bleeding, 18% had features of hyperemesis gravidarum, 40.5% of the patients had no complaints and were diagnosed on routine ultrasound scan[4]. Metastasis to the lower genital tract presents as purple to blue-black papules or nodules, abdominal tenderness if liver or gastrointestinal metastases have occurred, abdominal guarding and rebound tenderness if hemoperitoneum has occurred due to bleeding from abdominal metastasis. Bleeding from metastasis could also result in signs and symptoms of hemorrhagic shock. Neurologic deficits, from lethargy to coma can occur if brain metastasis has occurred. Cough and breathing difficulty if lung metastasis occur and Jaundice, if liver metastasis causes biliary obstruction.

Serum β hCG monitoring must be done in a woman presenting with recurrent or profuse post-partum vaginal bleeding. In our case the diagnosis was delayed because Serum β hCG test was not done nor was her histopathology available. Her serum TSH was markedly reduced due to Gestational Hyperthyroidism despite no clinical evidence of hyperthyroidism. Ideally, the diagnosis is made on the basis of raised serum β hCG, and histology. As this tumor has great propensity for dissemination to sites other than the primary site with frequent involvement of lungs, vagina, brain and liver a thorough systemic evaluation of the patient should be carried out in all cases of choriocarcinoma and the patient should be scored according to WHO FIGO prognostic scoring system to determine the choice of chemotherapy[9].

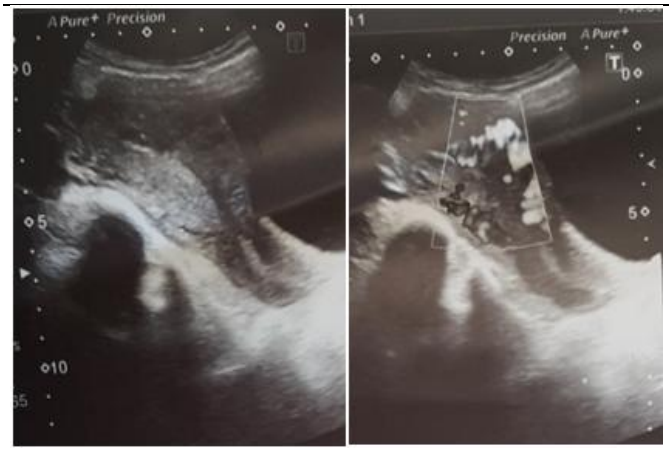

Figure-2: Pelvic ultrasound showing endometrium and parametrial vessels.

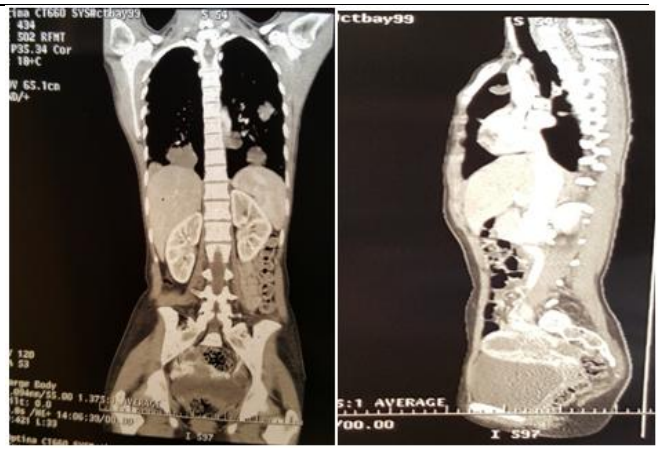

Figure-3: Contrast enhanced CT scan.

GTN is one of the rare examples of malignancies where cure has been achieved through the use of conventional chemo-therapeutic agents. This is because GTN are exquisitely sensitive to chemotherapy and serial monitoring with serum β hCG which is a highly sensitive biomarker of the disease[3]. As our patient was categorized in High risk group, she was effectively managed with Multi-Drug Chemotherapy and showed marked clinical improvement soon after the commencement of Chemotherapy which led to complete cure and a healthy life.

CONFLICT OF INTEREST

This study has no conflict of interest to declare by any author.

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