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CASE REPORT

A Rare Case of Gestational Choriocarcinoma with Lung and Vaginal Metastases with Obstructive Jaundice

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Abstract

Choriocarcinoma is a rare highly malignant neoplasm which may present with early metastases as it has a propensity of rapid haematogenous spread. However the neoplasm is chemosensitive and has a good prognosis even in advanced stages. We are presenting a case of a 26 years old female with early pregnancy presented with lung and vaginal metastases with obstructive jaundice. [International Federation of Gynaecology and Obstetrics (FIGO) stage III; World Health Organization score, 14]. Serum beta-hCG was 3,61,131 mIU/ml. Radiological evaluation suggested marked lung metastases with vaginal metastases. Patient was started on single agent chemotherapy doxorubicin in view of deranged liver function test. Patient was given 5 cycles of doxorubicin with liver function test and beta hcg monitoring. After liver function test normalized, patient was shifted to EMACO regimen for 6 cycles of treatment dose and 2 cycles of maintenance dose.

Keywords Doxorubicin · EMACO · Beta hCG · Molar pregnancy · Chemotherapy

Introduction

Gestational Trophoblastic Disease (GTD) is the term used to describe the heterogeneous group of interrelated lesions that arise from the proliferation of placental trophoblasts. Gestational Trophoblastic Neoplasia (GTN) is the malignant form of GTD, which includes invasive moles, choriocarcinoma, placental site trophoblastic tumors (PSTTs), and epithelioid trophoblastic tumors [1]. GTN (Gestational Trophoblastic Neoplasia) has a propensity for local invasion and metastasis. GTNs are among the rare human tumors that can be cured even in widespread dissemination. Although GTNs commonly follow a molar pregnancy, they can occur after any gestational event, including induced or spontaneous abortion, ectopic pregnancy, or term pregnancy. It can develop any time between 5 weeks and 15 years after gestation or even after menopause. Gestational Choriocarcinoma is a rare malignancy with varied incidence, in Southeast Asia incidence is 9.2 in 40,000 pregnant women [2].

Metastases can occur after any type of GTN but are more common after non-molar pregnancies and most commonly occur in the lung and the vagina. Single-agent chemotherapy achieves a high remission rate in non-metastatic and low-risk metastatic GTN. High-risk GTN requires primary combination chemotherapy, surgery to control complications of the disease and drug-resistant sites, and infrequent radiation therapy. Early Diagnosis of gestational choriocarcinoma is crucial as it is highly chemosensitive and exhibits a good prognosis, even in advanced stages [3].

Case Report

We are presenting the case of 26 years old female at 10 + 3 weeks of gestation with jaundice and difficulty in breathing with hemoptysis since 2.5 months and 1 week, respectively. Jaundice was associated with itching all over the body, the passage of clay-colored stool, and dark-colored urine. The patient had 3 blood transfusions and was advised

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suction evacuation (USG was suggestive of molar pregnancy) at a private hospital before coming to AIIMS.

The patient is G4P3002 with three-term vaginal deliveries. First, boy child expired after 2 months (history of fever). The other two female children were alive and healthy. The last delivery was 1.5 years ago.

Physical examination suggested marked icterus with mild pallor. Per abdominal examination revealed uterus of about 16 weeks size, mobile, and nontender. On per speculum examination, 3 × 3 cm firm bluish nodule at 10 'O'clock position and another nodule 0.5 × 0.5 cm at 2 'O'clock position of the vagina were present (Fig. 1).

Laboratory Investigations suggested mild anemia with normal kidney function tests. Liver Function Tests showed increased direct and indirect bilirubin levels with normal liver enzymes. Beta-hCG value was 3,36,131 mIU/ml.

USG showed heterogeneous echogenic lesions with cystic changes likely molar pregnancy and bilaterally enlarged ovaries with cholelithiasis with cholecystitis.

Chest X-Ray showed bilateral ground-glass opacities.

CECT suggested an enlarged uterus with heterogeneous hypoattenuating soft tissue component within the endometrial cavity with enlarged bilateral ovaries and multiple enhancing nodules in bilateral lungs. Diffuse increase in lung attenuation with multiple ill-defined ground glass opacities suggestive of choriocarcinoma with lung metastasis and developing diffuse alveolar hemorrhage and Cholelithiasis.

MRI brain did not reveal any suspicious focal lesion in brain parenchyma.

MRCP suggested mild hepatomegaly. Cholelithiasis-Tiny calculus (2 mm) in distal CBD with mild lithogenic bile with minimally prominent central intrahepatic biliary radicles. A large malignant uterine lesion with metastatic deposits in the vaginal wall-likely choriocarcinoma.

Liver biopsy was done to rule out the liver parenchymal disease for raised bilirubin, suggested pure bland cholestasis, the possibility of drug-induced hepatotoxicity/sepsis, or early bile duct obstruction.

Due to raised bilirubin levels, doxorubicin (Adriamycin) was started after proper consent. The patient was followed with a liver function test and beta hCG. After 5 cycles of doxorubicin, the patient's Liver Function Tests (LFT) normalized, and the patient was started on Etoposide, Methotrexate, Actinomycin D, Cyclophosphamide and Vincristine (6 treatment cycles and 2 maintenance cycles) and was followed with Complete Blood Count (CBC), Kidney Function Test (KFT), LFT and serum Beta hCG. Serum beta hCG levels were 2 mIU/ml after 6 doses of EMACO.

Fig. 1 Per speculum examination-3 × 3 cm firm bluish nodule at 10 'O'clock position suggestive of vaginal metastases

Discussion

Metastatic GTN presents in about 4% of patients after evacuation of a complete mole, but it occurs more often when GTN develops after non-molar pregnancies. Choriocarcinoma is the most common form of GTN to metastasize as it has a tendency of hematogenous spread. The most common sites of metastasis of choriocarcinoma are lung (80%), vagina (30%), pelvis (20%), liver (10%), and brain (10%). Pulmonary metastases may present as pain, cough, hemoptysis, dyspnoea, or asymptomatic visible lesion in X-ray. Radiological pictures may produce an alveolar pattern, discrete rounded opacities, pleural effusion, or an embolic pattern caused by pulmonary artery occlusion. Patients having vaginal metastases present as lesions that are highly vascular and if biopsied, may bleed vigorously.

The case presented in the study exhibits a similar clinical profile with lung and vaginal metastases. As per FIGO Anatomical Staging, the stage is III.WHO prognostic score suggested a score of 14.

The low-risk disease includes both non-metastatic (stage1) and metastatic GTN whose prognostic score is less than 7. In Low-risk patients, single-agent therapy with either Actinomycin D or Methotrexate has a comparable and excellent remission rate [4]. In the case mentioned, single-agent

therapy with doxorubicin was started in view of deranged LFT, later switched to EMACO regimen.

The high-risk disease includes GTN (stage II to IV) and multi-agent chemotherapy with selective radiation therapy, and surgery is the mainstay of treatment. 83% remission was found in high-risk diseases with the use of EMACO (Etoposide, Methotrexate, Actinomycin D, Cyclophosphamide and Vincristine.

In the present study, an accurate diagnosis and prompt treatment resulted in significant regression of the disease. However, the coincident finding of jaundice was misleading for hepatic involvement. But MRCP and liver biopsy led to a correct diagnosis. This case highlights the significance of early diagnosis and treatment in GTN.

Conclusion

Choriocarcinoma is a highly chemo-sensitive malignancy. Early diagnosis and treatment have a definitive role in the management of Choriocarcinoma as in the mentioned case.

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