Gestational Trophoblastic Disease: A Case Report

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ABSTRACT

Gestational trophoblastic disease (GTD) refers to a range of pregnancy related disorders which consists of premalignant disorders of complete and partial hydatidiform mole and malignant disorders of invasive mole, rare placental site trophoblastic tumor an d carcinoma.The objective of this report was to draw attention to early diagnosis and management of malignant tumour like gestationsal trophoblastic tumours..We present a case report of a 4-month-old female patient of Down syndrome, who was diagnosed with renal tubular acidosis. In conclusion, renal abnormalities in patients of DS should be considered, so as to maintain effective renal functions Key Words: Gestational trophoblastic disease, hydatiform mole

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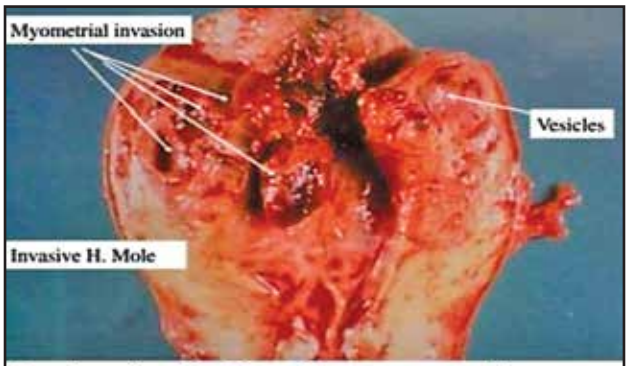
Introduction

Gestational trophoblastic disease (GTD) refers to a range of pregnancy related disorders which consists of premalignant disorders of complete and partial hydatidiform mole and malignant disorders of invasive mole, rare placental site trophoblastic tumor and carcinoma. These malignant forms are known as neoplasia or gestational trophoblastic tumors. It is unique in gynecologic cancers; Gestational Trophoblastic Neoplasia does not need a definitive histopathologic diagnosis. After eviction of Molar pregnancy, diagnosis can be made with only laboratory tests when there is persistence increase of human chorionic gonadotropin (hCG) hormone.1

In the case of appropriate management, Low risk gestational trophoblastic neoplasia can be cured with single agent chemotherapy.2 60 years ago, most of the women have died from malignant disease. The overall cure rates can exceed 98 percent with fertility retention by improving the management and follow up protocols. This success can be described using human chorionic gonadotropin hormone as a biomarker, by the development of effective treatments, and centralization of care.3 Even though diagnosis is advantageous, patients with GTD must face loss of pregnancy, repeated hCG measurements with viable need for chemotherapy, surgical procedure for expulsion and the advice to postpone future pregnancy. It has been observed that these patients experience different psychological complaints, which include various psychological domains, such as reproductive concerns, anxiety, depression and distress.4



Sometimes involving the peritoneum, parametrium, or vaginal vault. Originate almost always from H. mole

Case report

A 35-year-old female patient is presented in OPD of OBS/GYNAE department of Akbar Niazi Teaching Hospital (ANTH) on 23rd Oct,2022, with complain of fever and bleeding after miscarriage 15 days back, along with dysuria and urinary urgency.

History of presenting illness

According to the patient, she reported in the private clinic for the first time when she had PV bleeding after she missed her periods. Her UPT was done which was found to be positive. Her DNC was done due to suspicion of incomplete miscarriage. According to the patient she had hx of excessive vaginal bleeding during the DNC. No

histopathology report available of product of conception, 2 blood transfusions were done during the procedure. Patient remained at home for 10 days with a history of PV bleed and fever off and on. Patient was received in ANTH on 23rd OCT 2022, with complaints of excessive bleeding since morning and fever. Past medical history was not significant. No significant history of any drug intake and drug allergy. She belongs to middle socioeconomic status.

Examination

Patient was received in the ER.
Patient was well oriented in time and space.
Bp 90/60 mmHg. Pulse 11bpm
Respiratory rate 18 bpm. Temp afebrile

Marked pallor was noted.
Abdomen was soft and nontender.

Foul smelling vaginal discharge with bleeding.
Old, ruptured hematoma on lateral vaginal wall noted. Cervix could not be visualized properly.

Investigations

Complete blood count
23/10/2022
HB 7.6
WBC 15120
PLTS 249000
24/10/2022
HB 5.3
WBC 26620
PLTS 126000
26/10/2022
HB 7.6
WBC 12800
PLTS 14100
29/10/2022
HB 10.1
(5 RCC + 6 FFPs transfused) WBC 12720 PLTS 264000

Other investigations

LFT
28/10/2022 (ALT 36, ALP 194)
23/10/2022 (ALT 214, ALP 470)
Thyroid Profile 27/10/22 In Normal Range
T4 0.83
T3 0.77
TSH 1.33
RFTs
25/10/2022
Urea 45, Creatinine 0.9, Uric acid 4.9
23/10/2022
Urea 19, Creatinine 0.9, Uric acid 4.9

Hospital treatment summary

Patient was admitted and she was treated as a case of septic shock. Triple Regimen antibiotics were started. Blood transfusions were given. On the basis of her history and clinical findings, a blood sample for BHCG was sent and a departmental scan was planned. On receiving her BHCG was 5316mIU/ml and the departmental scan showed an enlarged uterus with heterogeneous cystic structure in the lower uterine segment with the CET not intact and marked increased vascularity was noted in that region. Patient was prepared for EUA after stabilization. Attendants were counseled regarding all risks. Patient was in a lithotomy position and anaesthetized. Examination was done, patient was bleeding profusely from hematoma drained. Vaginal tears were repaired with Vicryl 1, hemostasis was secured with very difficult. Rectal mucosa was intact, no stitch felt. Patient was examined by surgeons, and a proctoscopy was done. There was no active bleeding, vaginal packing was done with one abdominal sponge.

Operative findings

1. Lateral vaginal wall hematoma
2. Lateral vaginal wall tears extending up to the cervix and post vaginal fornix.
3. Major vessels and bleeders from tears.
4. Profuse bleeding from tears.
5. Estimated blood loss 2 to 3Liters.
6. Teared area necrosis and foul smelling.
7. Healthy cervix.
8. 3 units RCCs transfused per op.
9. 6 FFPs transfused.

INTRA OP Ultrasound done. Her BCG was repeated after EUA which showed rising trend, due to which ultrasound of pelvis was repeated. CT scan was done.

Serial BHCG reports

26/22	5103.28 mIU/ml
27/22	4087.2 mIU/ml
28/22	96,050 mIU/ml
1/11	4,27,510 mIU/ml

With rising trend of BHCG levels and radiological impression of neoplastic gestational trophoblastic disease her risk assessment according to FIGO scoring was done which categorized it as a high risk disease, due to which the patient was referred to oncology department for multiagent chemotherapy as per protocol. Recently her two cycles of chemotherapy have been completed with BHCG level of 51mIU/ml.

Discussion

Gestational trophoblastic disease is a group of rare diseases in which abnormal trophoblast cells grow inside the uterus after conception (the joining of sperm and egg). GTN subset of malignancies that have varying propensities for local invasion and metastasis. It can be cured by chemotherapy and surgery for tumors that do not respond to chemotherapy. There are different types of GTD which include premalignant disease and malignant disease. Premalignant diseases have two types, Complete Hydatidiform Mole (C M) and Partial Hydatidiform Mole (P M).

Malignant Diseases (Gestational Trophoblastic Neoplasia) include invasion mole, placental site trophoblastic tumor (PSTT), epithelioid tumor and gestational carcinoma. Calculated incidence of complete mole occurs 1 in 1945 pregnancies and partial mole includes 1 in 695 pregnancies.

Clinical features of hydatidiform mole are irregular vaginal bleeding, positive pregnancy test, uterus is larger than POG, hyperemesis gravidarum, theca leutin cysts, early onset of preeclampsia, presence of grapes like vesicles. If HCG levels are higher than 100000 ml U/L, excessive uterine enlargement, Theca leutin cyst is 6cm or larger, then there is high risk for developing Post molar tumor.

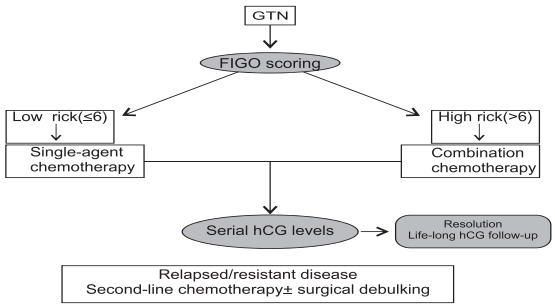
Histological evaluation of material accessed from the surgical and medical management of all miscarriages is recommended to eliminate trophoblastic neoplasia if none of fetal parts are recognized at any stage of pregnancy. Women who experienced miscarriage should be highly recommended to do UPT 3 weeks after miscarriage. There is no clinical sign for routine use of second uterine evacuation. If the recurrent molar tissue is limited to the uterine cavity, then it may be beneficial for symptom control in selected patients with heavy bleeding curative. For the primary treatment of patients diagnosed with gestational trophoblastic neoplasia (GTN), The International Federation of Gynecology and Obstetrics scoring system is used to guide Worldwide.5

According to FIGO scoring:

FIGO prognostic score (2000)

	0	1	2	4
Age (years)	≤39	>39		
Antecedent pregnancy	Hydatidi form mole	Abortion	Term pregnancy	
Interval from index pregnancy, months	< 4	4-6	7-12	> 12
Pretreatment hCG (mIU/ml)	$< 10^3$	10^3-10^4	> 10^4-10^5	> 10^5
Largest tumour size, including uterus	3-4 cm	5 cm		
Site of metastases		Spleen, kidney	GI tract	Brain, liver
Previous failed chemotherapy			Single	Two or more drugs

Low risk (Score 0–6) and high risk (score≥ 7)



Low risk GTN

In FIGO score 6 or less. Drugs schedules: single agent chemotherapy Most commonly used regimen: Methotrexate: 1 mg/kg 1M on days 1, 3, 5, 7 Folinic acid 0.1 mg/kg 1M on days, 2, 4, 6 and 8. Side Effects: Stomatitis, conjunctivitis, abdominal and chest pain. Actinomycin- D: (primary therapy in case of abnormal liver function)

High risk GTN

Stage I, II, III With FIGO score 7 or greater or Stage IV

, Primary intensive combination chemotherapy Regimens given: MAC, Modified Bagshawe (CHAMOCA), EMA-CO, EMA-EP.

For Complete mole, if hCG has reverted to normal within 8 weeks of the pregnancy event then follow up will be for 6 months from the date of uterine removal. If hCG has not reverted to normal within 8 weeks, then follow will be for 6 months from normalization of hCG level. For Partial mo1e follow up till hCG has returned to normal on two samples atleast 4 4 weeks apart. Women who have not received chemotherapy no longer need to have hCG measured after any subsequent event.

Conclusion

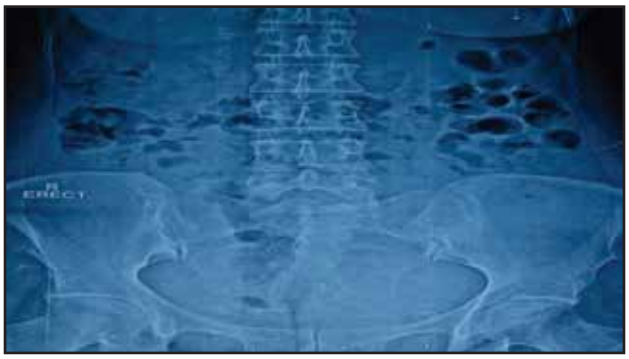
Gestational trophoblastic disease is characterized by abnormal proliferation of pregnancy associated trophoblastic tissue with malignant potential. They are potentially curable with retention of reproductive function once the correct diagnosis is made and treatment is commenced early with adequate follow up. As per our understanding this bunch of entities unfolds, that novel biomarkers are required for these rare conditions to assist in diagnosis, management, and prognosis stratification.6

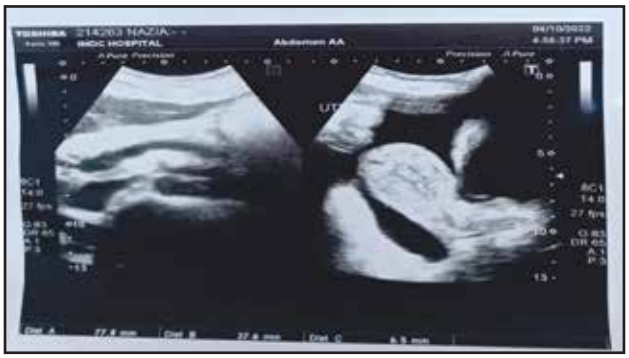
Long term results of treated women are generally magnificent with an overall cure rate about 100 percent, further pregnancies are achieved in 80 percent women following with multi agent chemotherapy or methotrexate alone. There is risk of premature menopause for women, who are treated with combination agent chemotherapy. Women who are convergent to the age of 40 and are treated

with high doses of chemotherapy then they should be informed about the negative impact on fertility. Chemotherapy and Gestational Trophoblastic Diseases (GTD) hardly ever affect the later pregnancies, but the rate of repeat mole is comparatively high.

Ultrasound of the patient

Xray of the patient





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