Journal of Research in Medical and Dental Science
2021, Volume 9, Issue 11, Page No: 393-395
Copyright CC BY-NC 4.0
Available Online at: www.jrmds.in
eISSN No.2347-2367: pISSN No.2347-2545

Choriocarcinoma – An Unusual Presentation as A Medical Emergency

Navyatha Bandarupalli*, Prema Elizabeth

Department of Obstetrics and Gynecology, Sree Balaji Medical College and Hospital, Chrompet, Chennai

ABSTRACT

The diagnosis of Gestational Trophoblastic Neoplasia (GTN) should be considered in all women of reproductive age presenting as an acute emergency with unexplained respiratory failure or signs of intracranial bleeding as the respiratory symptoms may be profound that it can be confused with primary pulmonary disease.

Key words: Gestational trophoblastic disease, Choriocarcinoma, Beta HCG, Spontaneous abortions, Molar pregnancies

HOW TO CITE THIS ARTICLE: Navyatha Bandarupalli*, Prema ElizabethChoriocarcinoma – An Unusual Presentation as A Medical Emergency , J Res Med Dent Sci, 2021, 9(11): 393-395

Corresponding author: Navyatha Bandarupalli
e-mail ✉ :bnavyatha@yahoo.com
Received: 04/10/2021
Accepted: 18/10/2021

INTRODUCTION

Gestational Trophoblastic Diseases (GTD) is a group of pregnancy related diseases arising from abnormal placental trophoblast cell. It includes the spectrum of interrelated tumours which include complete and partial hydatiform mole, invasivemole, choriocarcinoma and Placental Site Trophoblastic Tumour (PSTT). However, Gestational Trophoblastic Neoplasia (GTN) includes only the latter three.

As the term neoplasia implies, GTN arises when the normal regulatory mechanism controlling the proliferation and invasiveness of trophoblastic tissue are lost. Overall 16% of complete hydatiform moles & 0.5% of partial hydatiform moles undergo malignant transformation. Risk factors include maternal age <15 & >40 yrs, prior molar pregnancy and Asian ethinicity [1].

Choroicarcinoma is the high-risk variant of GTN arising from villous trophoblast cells, which has a high propensity for local invasion and metastasis. Choriocarcinoma is an extremely aggressive form of neoplasia producing highly vascular lesions at any site in the body. Bleeding is the most common presentation. Around 1/3rd of patients present with metastatic diseaseas clinical emergency. This maybe in the form of respiaratory failure from large volume lung diseases, pulmonary hemorrhage, intra-abdominal hemorrhage or neurological abnormalities due to cerebral metastasis or hemmorage.

Lungs are the commonest site of metastasis (80%) followed by vagina (30%), pelvis (30%), liver (10%) and brain (10%).

Serum beta HCG level and abnormal USG findings are diagnostic tools for GTN. Beta HCG is a reliable tumour marker which co relates well with the disease volume and so is used as an accurate biomarker for screening, diagnosis, therapeutic response and follows up of women with GTN [2].

CASE REPORT

A young married female aged 21 years, P1L1A1 was admitted in the emergency room of department of obstetrics and gynaecology, shree balaji medical college, Chennai.

Her chief complaints were acute onset severe respiratory distress for one day and irregular bleeding per vaginum for three months, which became severe for last two days. On further interrogation, she told that about three months back, she had undergone dilatation and curettage following incomplete spontaneous abortion of two months pregnancy. It was followed by on and off heavy bleeding per vaginum for which she had undergone dilatation and curettage (two more times) at some private hospital but bleeding per vaginum persisted [3].

At the time of admission in this hospital, her chief complaints were sudden onset of severe respiratory distress with bleeding per vaginum.

On general examination, the patient was in a state of shock with severe pallor with PR – 132/min BP- 90/60mm Hg RR – 38/MIN with bilateral crepitations on chest auscultation and she was afebrile.

On per speculum examination, vagina and vulva was healthy, slight bleeding through os was seen. On per vaginum examination, uterus was 14 weeks size and forniceal fullness was present. Resuscitative measures were started and urgent abdominal ultrasound was done

which revealed irregular cystic mass of mixed echogenicity, completely filling the uterus [4].

On investigating, her Hb was 3.4g/dl; TLC -6,400/mm3; DLC- P52 L40 E1 M0 B0 and Beta-HCG was 50,000Miu/ml at the time of admission. Chest x-ray showed discrete round opacities with bilateral pulomary infiltrates.

At our institute, she was managed primarily with blood transfusions, injectable antibiotics, hemostatic agents and oxygen. On the basis of above findings, clinical diagnosis of choriocarcinoma with pulmonary metastasis was made and emergency chemotherapy was planned but could not be started because of the poor general condition as wellas low haemoglobin of the patient. Exploratory laparotomy was done with lifesaving abdominal hysterectomy for intractable vaginal bleeding with written informed consent taken regarding no chances of future conception. Pre operatively, posterior wall of uterus was found invaded; the growth also involved the cervix. Histopathological examination revealed choriocarcinoma infiltrating the myometrium, serosa and extending lower down involving the cervix [5].

Post operatively her anemia was corrected by blood transfusion and hematinics. The diagnosis of choriocarcinoma was confirmed on histopathology. The patient was discharged and referred to cancer institute for chemotherapy with advice to remain in regular follow – up, especially with serum beta-HCG titre, but she has been lost to follow-up.

DISCUSSION

As choriocarcinoma may follow any type of molar or non-molar pregnancy, this can be a case of choriocarcinoma following spontaneous abortion or may be choriocarcinoma following hydatidiform mole i.e persistent GTN. Differentiation between these two entities could not be done because as stated by the patient, she had undergone Dilatation and Curettage (D&C) for incomplete abortion three months before this acute presentation but had not undergone any investigations such as serum beta hcg titre, ultrasonography or histopathological examination of curetted tissue that could provide clue regarding the nature of previous pregnancy [2].

This rare type of tumor that most often affects pregnant women is called a gestational choriocarcinoma. Choriocarcinoma forms when cells that were part of the placenta in a normal pregnancy become cancerous. It can happen after a miscarriage, abortion, ectopic pregnancy or molar pregnancy -- when an egg is fertilized, but the placenta develops into a mass of cysts instead of a fetus. There are 2 forms of choriocarcinoma, gestational and non-gestational. The former arises following a hydatidiform mole, normal pregnancy, or most commonly, abortion, while non-gestational choriocarcinoma arises from pluripotent germ cells.

In this case, persistence of bleeding in spite of three D&C , severe anemia , respiratory distress, mixed echogenicity with areas of necrosis on USG and rounded opacities on chest X-ray suggestive of most probable diagnosis of GTN with pulmonary metastasis . as it has been found that most patients with pulmonary involvement present with chest pain, cough, hemoptysis, dyspnoea or any asymptomaic lesion visible by chest radiography. The H/O previous pregnancy or abortion and presents of bleeding per vaginum can give a clue to diagnosis [5].

For management of cases of GTN, a single and universally accepted anatomical staging and prognostic scoring system was developed.

The World Health Organization and International Federation of Gynecology and Obstetrics developed the following staging system for choriocarcinoma:

- Stage I: Disease confined to the uterus
- Stage II: Disease extending beyond the uterus, but confined to genital structures
- Stage III: Disease extending to the lungs
- Stage IV: Disease invading another metastatic site

Criteria: Furthermore, the patients are then stratified into low- and high-risk groups to determine treatment based on the following criteria

Age:

- 0: Younger than 39 years old
- 1: Greater than 39 years old

Antecedent Pregnancy:

- 0: Mole
- 1: Abortion
- 2: Term

Pregnancy Event to Treatment Interval:

- 0: Less than 4 months
- 1: 4 to 6 months
- 2: 7 to 12 months
- 4: Greater than 1 year

Pretreatment (hCG, mIU/ml):

- 0: Less than 10 3
- 1: 10 3 to 10 4
- 2: 10 4 to 10 5
- 4: Greater than 10 5

Largest Tumor Mass:

- 0: Less than 3 cm
- 1: 3 to 4 cm
- 2: Greater than 5 cm

Site of Metastases:

- 0: None
- 1: Spleen, kidney
- 2: GI tract
- 4: Brain, liver

Number of Metastases:

- 0: None
- 1: 1 to 4
- 2: 5 to 8
- 4: Greater than 8

Previous Failed Chemotherapy:

- 0: None
- 2: Single-drug
- 4: Greater than 2 drugs

Cumulative score:

- Low-risk: Less than 7
- High-risk: Greater than 7

In all cases of GTN, chemotherapy is given until the normalization of serum beta HCG and then continued for a consolidation phase of 6-8 weeks. Low risk disease is treated by single agent chemotherapy, either methotrexate and folinic acid or actinomycin D. Methotrexate and folinic acid combination is used widely due to its favourable side effect profile. It is extremely well tolerated, there is no alopecia, myelosuppression is rare and there have been reported cases of secondary malignanacies.

Surgical management in the form of hysterectomy has its own place in cases of intractable bleeding, completed families and PSTT. After successful treatment, follow up of patients are done by regular HCG survellaince. Currently, survellaince is lifelong, as it remains unclear at what point is it safe to stop. Serum Beta-HCG estimation can be done upto six months and then in urine for lifelong follow-up.

Advice for next pregnancy is to have an early USG done to check the normality of the pregnanacy and resume HCG survellaince at six weeks post-delivery.

REFERENCES

1. Balagopal PG, Pandey M, Chandramohan K, et al. Unusual presentation of choriocarcinoma. World J Surg Oncol. 2003; 1:1-4.
2. Gari A. Placental site trophoblastic tumor and choriocarcinoma: an unusual presentation. BMC Res. 2015; 8:1-4.
3. Worster A, Sharma S, Mookadam F, et al. Acute presentation of choriocarcinoma: A case study and review of the literature. Can J Emerg Med. 2002; 4:111-114.
4. Reilley MJ, Pagliaro LC. Testicular choriocarcinoma: A rare variant that requires a unique treatment approach. Curr Oncol Rep. 2015; 17:2.
5. Nkanza, NK, King N. Choriocarcinoma presenting as an intussusception-A case report. Cent Afr J Med. 1989; 35:389-392.