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# CHORIOCARCINOMA

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**Abstract :**
An interesting case of choriocarcinoma is presented here for its rarity. The incidence of gestational trophoblastic diseases range from 1 in 500 in India to 1 in 300 in USA. The malignant potential is 10-15 percent in Southeast Asia compared to 2-4 percent in Western countries. The malignant nonmetastatic or metastatic low risk gestational trophoblastic neoplasia have an almost 100 percent possibility of cure with chemotherapy. Even the high risk neoplasia group has 75 percent cure rate. Hence a rare neoplasia with very good prognostic outcome has been presented here.

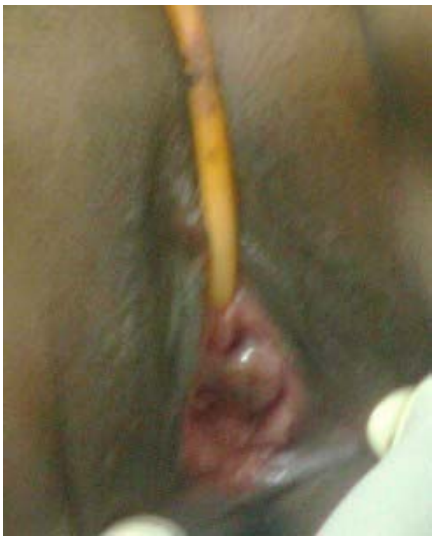
**Keyword :**Choriocarcinoma, gestational trophoblastic diseases, canon ball secondaries,methotrexate, FIGO staging, EMA -CO regimen

## CASE REPORT

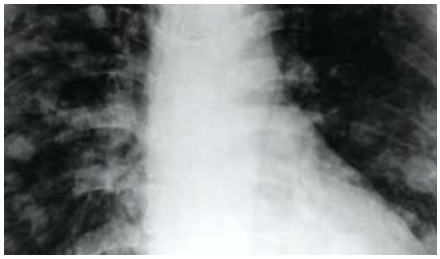
A 26 year old para1 live1 abortion1, previous LSCS admitted on 30.8.2010 with history of breathlessness for 10 days. Her last menstrual period was on 4.5.2010. Her last child was born on 8.8.2009. Patient had 2 months of regular cycles following 6 months of lactational amennorhea of previous child birth. Subsequently she had 3 months of amenorrhea followed by bleeding per vaginum for 20 days. She went to private hospital where dilation and curettage done and the specimen was not sent for histopathological examination. She continued to have profuse bleeding per vaginum.

On examination her vitals were stable barring a mild tachycardia and pallor. Blood pressure was 110/70 mm Hg. On per abdomen examination, abdomen was soft, nontender. Suprapubic transverse scar was present. No organomegaly or free fluid was found. Local examination showed a suburethral 2*1 cm nodule.There was a vaginal nodule of 2 *3 cm size. On per vaginal examination cervix was pointing downwards, uterus was retroverted and bulky, and fornices were free. CVS- S1, S2 heard in all areas, no murmurs. RS- normal vesicular breath sounds heard equally in all areas. CNS examination showed no focal neurological deficits.

Her hemoglobin was 7.2 grams. RFT and LFT values were within normal limits. Ultrasound examination of the pelvis revealed- uterus bulky, endometrial cavity showed collection of irregular specked echoes with blood clots. Biopsy of the nodule after securing hemostasis and 2 units of PRBC transfusion, revealed sheets of trophoblasts with areas of haemorrhage and necrosis and no chrionic villi structures were seen. Since this finding is suggestive of choriocarcinoma we did a chest X ray which revealed multiple cannon ball shadows of varying size in both lung fields suggestive of secondaries. Her hCG levels were 40,000 mIU/ml. Thyroid functions were within normal limits. MRI/ CT abdomen and pelvis showed no intraabdominal metastasis. CT Chest showed lung metastasis. MRI Brain showed no intracranial metastasis. Sites of metastasis were in lower genital tract and the lung. Total number of metastasis were 7 and the largest tumor size was 4 cm. Diagnostic biopsy of the nodule after securing hemostasis and 2 units PRBC transfusion, revealed sheets of trophoblasts with areas of haemorrhage and necrosis. No chorionic villi structures were seen in the biopsy.



Patient had FIGO stage 3 choriocarcinoma. WHO modified prognostic score was 8. She was started on EMA-CO chemotherapy regimen and was on periodic follow up. hCG levels are being monitored every week initially which showed marked reduction in hCG levels to 1500 mIU/ml.



## DISCUSSION:

Gestational trophoblastic diseases are classified into hydatidiform mole, invasive mole, choriocarcinoma and placental site trophoblastic tumor. Those that invade locally or that metastsize are collectively called gestational trophoblastic neoplasia. Histologically, choriocarcinoma has no villi, but they have sheets of trophoblasts and haemorrhage. Choriocarcinomas are aneuploid and can be heterozygous depending on the type of pregnancy from which it arose. Of choriocarcinomas, 50% are preceded by hydatidiform mole, 25% by an abortion, 3 % by an ectopic pregnancy and other 22% by a normal full term pregnancy. Lungs are the commonest site of metastasis followed by liver, lower genital tract, brain and kidneys.

Clinical presentation is usually bleeding per vaginum. Metastasis to lower genital tract presents as purple to blue black papules or nodules. Abdominal tenderness may be present if gastrointestinal or liver metastasis has occurred. Bleeding from metastasis could result in signs of haemorrhagic shock. Neurologic deficits from lethargy

to coma can be encountered if brain metastasis has occured. Symptoms of thyrotoxicosis can occur due to high hCG levels.

Semi-quantitative hCG levels are used to assess the disease activity and the response to therapy. hCG titres fail to become negative or remain plateau or re-elevate 8 weeks post molar evacuation in case of neoplasia. A CBC may detect anemia secondary to bleeding. Liver enzymes show elevation in case of liver metastasis. Pelvic ultrasonography shows the molar tissue and the site. Chest radiograph and CT Chest is done for detecting the lung metastasis. CT/ MRI of the abdomen and pelvis and MRI of head are recommended to rule out metastasis and for staging purposes. Suction and careful sharp curettage can be performed in patients being observed for a hydatidiform mole who have persistent vaginal bleeding. A uterine dilation and curettage performed in a woman with abnormal vaginal bleed and positive pregnancy test may reveal choriocarcinoma.

The Official International Federation of Gynaecology and Obstetrics staging of gestational trophoblastic neoplasia is as follows: STAGE 1- Confined to uterus. STAGE 2- Limited to genital structures. STAGE 3- Lung metastasis. STAGE 4- Other metastasis. The currently used prognostic scoring index is a modification of WHO classification. The FIGO Oncology Committee at its 2000 meeting that patients could be assigned to a low risk group if prognostic score was 0 - 6, and high risk if score was 7 or higher. PROGNOSTIC SCORING INDEX:Patients with nonmetastatic gestational trophoblastic neoplasia ( GTN) or low risk GTN are treated with single agent chemotherapy, usually one course of Methotrexate (30 mg/sq.m. 1 week/ cycle). Actinomycin D can be used in patients with severe liver disease. hCG levels are monitored every week. One additional course of chemotherapy is administered after a normal serum hCG levels. After 3 to 4 normal serum hCG levels, the levels are observed once per month for one year.

Patients with prognostic score > 7 are usually treated with combination of Etoposide, Methotrexate, and Actinomycin D administered in the first week of a 2 week cycle and Cyclophosphamide and Vincristine administered in the second week. This is known as EMA-CO regimen. Two additional courses of EMA-CO are administered after normal serum hCG levels. Patients with brain metastasis recieve whole brain irradiation (3000 cGy) in combination with chemotherapy. Dexamethasone is used to reduce the cerebral edema. Hysterectomy is usually reserved in cases of uncontrolled vaginal bleeding. Hysterectomy may reduce the number of chemotherapy cycles. Uterine artery or feeding artery embolization may be needed to control the haemorrhage.

PROGNOSTIC SCORING INDEX:

| Prognostic Factor | Points |
|---|---|
| Age 40 y | 1 |
| Antecedent pregnancy terminated in abortion | 1 |
| Antecedent full-term pregnancy | 2 |
| Interval of 4-7 mo between antecedent pregnancy and start of chemotherapy | 1 |
| Interval of 7-12 mo between antecedent pregnancy and start of chemotherapy | 2 |
| Interval of more than 12 mo between antecedent pregnancy and start of chemotherapy | 4 |
| Beta-hCG level in serum is 1,000 to < 10,000 mIU/mL | 1 |
| Beta-hCG level in serum is 10,000 to < 100,000 mIU/mL | 2 |
| Beta-hCG level in serum is ³100,000 mIU/mL | 4 |
| Largest tumor is 3 cm to < 5 cm | 1 |
| Largest tumor is >5 cm | 2 |
| Site of metastases is spleen or kidney | 1 |
| Site of metastases is gastrointestinal tract | 2 |
| Site of metastases is brain or liver | 4 |
| Number of metastases is 1-4 | 1 |
| Number of metastases is 5-8 | 2 |
| Number of metastases is >8 | 4 |
| Prior chemotherapy with single drug | 2 |
| Prior chemotherapy with multiple drugs | 4 |