Primary uterine choriocarcinoma presented as suspected ectopic pregnancy: A case report

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Abstract
Choriocarcinoma is a trophoblastic tumor belonging to the malignant end of the spectrum in gestational trophoblastic disease. It usually occurs after a molar pregnancy, but may develop after a normal pregnancy. We report a case of 28-year-old female who presented with two-month amenorrhea and bleeding per vagina for 2-3 days. Patient was conscious, cooperative. General examination revealed severe pallor with Hb-3 gm/dl. PV findings uterus 6 weeks size, anteverted and anteflexed, on right fornix mass felt and slight bleeding present. Abdominal ultrasound shows right tubo-ovarian mass 10x8 cm size and free fluid seen in pouch of Douglas suspecting ectopic pregnancy. Histology findings show choriocarcinoma.

Keywords: Choriocarcinoma, ectopic pregnancy, amenorrhea, gestational trophoblastic disease

Introduction
Choriocarcinoma, a persistent gestational trophoblastic neoplasia (GTN), is a highly malignant tumor arising from the chorionic epithelium. The incidence of choriocarcinoma is estimated to be 0.133 per 100000 woman-years [1]. About 3 to 5 % of choriocarcinoma occurs after molar pregnancy, where there is malignant transformation of chorionic tissue [2]. GTN after the molar pregnancy can either be Invasive mole or Choriocarcinoma but following non-molar pregnancy, GTN is always a choriocarcinoma. Though the molar pregnancy is the commonest cause for choriocarcinoma, it can sometimes occur following term pregnancy, spontaneous abortion, and even after ectopic pregnancy [2-3]. Choriocarcinoma usually present with nonspecific symptoms and can mimic with different other clinical presentations like Hemorrhagic ovarian cyst, Tubo-ovarian abscess, Ovarian torsion, and ectopic pregnancy. Postpartum choriocarcinoma presents mainly as prolonged vaginal bleeding. Approximately 30% cases present with advance disease, having metastasis to various organs like lungs, vagina, liver and brain. Therefore, high index of suspicion is required for diagnosis. Delay in diagnosis and treatment can increase the morbidity and mortality. Different investigations like USG and Serial measurement of β HCG level can help in early diagnosis and prompt initiation of chemotherapy for the better prognosis.

Case
A 28 years old female gravida 2 with two months amenorrhea and bleeding per vagina for 2-3 days was presented to the emergency unit of the gynaecology department. Patient was conscious, cooperative. General examination revealed severe pallor, BP 110/70 mmHg, PR-106/Min. Laboratory evaluation showed Hb-3 gm/dl, LFT and RFT within normal range. BT is 3.5 and CT is 7.5 min. The chest x ray was normal. PA- lower abdomen tenderness. PV-findings uterus 6 weeks size, antverted and anteflexed, on right fornix mass felt and slight bleeding present. Abdominal ultrasound shows right tubo-ovarian mass 10x8 cm size and free fluid seen in pouch of douglas (POD)? Ectopic pregnancy (figure-1).

Patient taken for laparotomy and intraoperatively uterine posterior wall near fundus had severe bleeding and there was a fragile, hemorrhagic and necrotic growth with erosions involving the right sided interstitium of fallopian tube, right cornua of the uterus and was invading the ovary so subtotal hysterectomy with bilateral salpingo-oophorectomy was done. Post op day 3 patient had vaginal bleeding so vaginal sample also taken for HPE and stitch applied at site of bleeding. Histologic findings show sheets of anaplastic cytotrophoblasts and syncytiotrophoblasts without chorionic villi in placental specimen and vaginal metastasis specimen confirms choriocarcinoma (figure-2).
Fig 1: Abdominal ultrasound shows right tubo-ovarian mass 10x8 cm size and free fluid seen in pouch of douglas (POD)

Fig 2: Histologic findings of sheets of anaplastic cytotrophoblasts and syncytiotrophoblasts without chorionic villi

Discussion
Choriocarcinoma is a persistent gestational trophoblastic neoplasia, and is a highly malignant tumor arising from the chorionic epithelium. The most common site of origin of choriocarcinoma is uterus and occurs mainly after the malignant transformation of molar pregnancy, but sometimes it has been seen after term pregnancy, spontaneous abortion or ectopic pregnancy at various sites [2, 3]. Choriocarcinoma after an ectopic pregnancy (0.76% to 4%) is a rare entity [4]. The occurrence of choriocarcinoma in very variable ranging 5 weeks to 15 years after gestation and can occur even after menopause [4]. The incidence of choriocarcinoma after ectopic gestation is less but is very aggressive disease with around 30% presenting with metastasis at time of diagnosis. Lung is the most common site of metastasis (80%) followed by vagina (30%), liver and brain (10%) [5]. Choriocarcinoma, including those arising in an ectopic location, is highly responsive to chemotherapy, even in advanced stages. Early identification of the disease is very important as it carries excellent prognosis. It presents as nonspecific symptoms like amenorrhea, vaginal bleeding, pelvic pain with increase in serum β hCG level and can mimic ectopic pregnancy.

In our patient suspicion of choriocarcinoma arise from clinical presentation, serum beta hCG level (56500mIU/ml) and intraoperative finding. Ultrasonography both Transabdominal and Transvaginal, Color flow Doppler, MRI, and even hysteroscopy plays a significant role in the diagnosis of gestational choriocarcinoma [4, 5]. Overall, the gold standard for diagnosing choriocarcinoma is the histopathological confirmation.

These tumors are chemo-sensitive and regimen depends on the risk score of the patient. The Prognostic scoring system classify gestational trophoblastic neoplasia into low risk (risk score ≤<6) and high risk (risk score >6) depending upon various parameters. This patient falls under low risk on WHO prognostic scoring and FIGO stage II so she was started with single cycle chemotherapy with Methotrexate and Folinic acid. Patient had completed her 5th cycle of single agent chemotherapy and is under regular follow up. After 5 cycle post chemotherapy beta hCG level is 60mIU/ml.

Conclusion
Physicians should be aware of the possibility of choriocarcinoma after normal delivery. The most common clinical presentation is vaginal bleeding, but other symptoms could present. Early suspicion, clinical and sonographic findings, beta hCG level, and histology could aid in a timely diagnosis. Early detection, early surgical intervention followed by chemotherapy depending on the risk-score, has favourable outcome.

References