Case Report

Choriocarcinoma of uterine cervix with cerebral and lung metastasis

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Abstract: Uterine cervical choriocarcinoma was diagnosed in a 22-years-old woman, admitted to the hospital with irregular vaginal bleeding, hemoptysis and intermittent fever for three months. She had undergone dilatation and curettage for incomplete abortion in the past and had a full term normal vaginal delivery. Pelvic examination revealed a tumor mass occupying the uterine cervix. Ultrasound of the abdomen and pelvis showed an ill defined heterogeneous predominantly isoechoic mass lesion arising from the cervical part of the uterus with invasion to the posterior wall of urinary bladder with bilateral ovarian cysts. Chest radiograph revealed multiple nodular soft tissue density radiopaque shadows of various sizes in lower zones of both lung fields. CT scan of the abdomen revealed heterogeneous soft tissue density mass lesion with central areas of hypodensities, arising from the cervical part of uterus. Fat plane with inferior wall of the bladder and rectum were lost. The mass shows heterogeneous enhancement after administration of contrast material. CT scan of head revealed multiple hemorrhagic lesions in the supratentorial compartment with perilesional edema. Urine pregnancy test was positive. Urine hCG in high dilution was also positive (upto I: 1024) and Serum B-hCG was 181.3(7) mUL/ml. Histopathological findings led to the diagnosis of choriocarcinoma of the cervix.

Introduction

The incidence of choriocarcinoma is high in Asian countries including Nepal. Choriocarcinoma is one of the malignant tumours of trophoblastic cells characterized by the secretion of human chorionic gonadotrophin (hCG) from syncytiotrophoblastic cells.[1,2,3] It grows rapidly, with wide spread hematogenous dissemination which may be fatal before the diagnosis is even suspected. The most common sites of systemic metastatic disease are lungs, liver and brain via hematogenous spread.[1] Primary extra-uterine choriocarcinoma is very rare, found mostly in the genital tract (tube cervix, ovary, and vagina) in patients with coincidental or antecedental pregnancy. Choriocarcinoma that appears as a primary process of the uterine cervix can easily be misdiagnosed as cervical pregnancy, benign, or malignant uterine cervical neoplasia.[4,5,6] Here we report a case that is diagnosed to have choriocarcinoma of the uterine cervix.

Case Report

A 22 years old female underwent dilatation and curettage for incomplete abortion in 2001. She had one full term normal vaginal delivery and had occasionally used hormonal contraceptives. On January 2005, she was brought to the emergency with complains of passage of blood in urine, coughing out blood and intermittent fever for 3 months. Ultrasound of the abdomen was done which revealed an ill defined heterogenous predominantly isoechoic mass lesion arising from the cervical part of the uterus with invasion to the posterior wall of urinary bladder with bilateral ovarian

cyst (Fig: 1). No ascitis or lymphadenopathy was noted. Chest radiograph revealed multiple nodular soft tissue density radiopaque shadows of various sizes in the lower zones of both lung fields. CT scan of the abdomen revealed heterogenous soft tissue density mass lesion with central areas of hypodensities arising from the cervical region of uterus with heterogenous enhancement after intravenous contrast (Fig: 2 A and B). Fundic part appeared normal. Bilateral ovaries were separate from the mass lesion and showed simple cysts. Fat plane with inferior wall of bladder and rectum was lost. CT scan of head revealed multiple haemorrhagic lesions in the supratentorial compartment with perilesional oedema (Fig: 3. A and B). Urine pregnancy test was positive. Urine hCG in dilution was also positive (upto I:1024). Serum Beta hCG:181.3(7)mIU/ml. No malignant cells were seen in urine cytology of three consecutive morning samples. The diagnosis of choriocarcinoma with lung and cerebral metastasis was made.

Discussion

Gestational trophoblastic disease most commonly follows molar pregnancy and may also occur following normal or ectopic pregnancies and spontaneous or therapeutic abortions. Its incidences varies with figures as high as 1 in 120 pregnancies in some Asian countries and South America, compared to 1 in 1200 in United States. After local management of hydatidiform mole, metastatic diseases may occur in 4% of patients. The incidence of choriocarcinoma after complete hydatidiform mole is about 1000 times more than after a normal pregnancy.[7] It may occur possibly ab initio.[8] In western countries, the incidence is 1 in 45,000 pregnancies.[9] Choriocarcinoma of the cervix is an extremely rare tumor. Higher incidence is reported from Africa, Asia and South America.[9] Majority of the cases of choriocarcinoma occur in women less than 35 years.[9]

Choriocarcinoma is suspected when there is persistent or irregular uterine hemorrhage, following abortion or hydatidiform mole. Rapid growth and hemorrhage make the tumor a medical emergency. Metastasis may occur in lung, pelvis and vagina. The rare site of metastasis includes gastrointestinal tract, spleen and vagina. Metastasic disease occurs in 4% of patients after local management of hydatidiform mole and very rarely after term pregnancy or abortions.[10] Some times they may be combined with malignant germ cells components and occasionally it may be difficult to differentiate a primary tumor from metastasis. For females in non reproductive age group, the tumors may arise from ovarian germ cells which are histopathologically similar to gestational uterine choriocarcinoma.[9]

Chemotherapy is highly effective for all forms of gestational trophoblastic disease. For stage-I disease hysterectomy and single agent chemotherapy is effective. For advanced diseases salvage regimes are available for managements. Malignant transformation in a hydatidiform mole is a rare event. The diagnosis of uterine cervical choriocarcinoma is extremely difficult. The clinical presentation in our case, as well as in previously reported cases, was abnormal vaginal hemorrhage in a woman of child bearing age. Among 11 cases studied, only one occurred in a 54-year-old postmenopausal patient.[6] Pelvic examination, Beta hCG level and transvaginal color Doppler Ultrasonography (TVUS) are essential in early diagnosis of this disease. Though our patient was already in metastatic phase, diagnosis was delayed because gynecological, ß hCG and TVUS exams were not performed. Choriocarcinoma was treated as if it were dysfunctional uterine hemorrhage in another hospital for four months because transabdominal ultrasonogarphy performed at the onset of the disease revealed no alteration in the uterine corpus and surrounding tissues.

Choriocarcinoma, in women, is often preceded by a gravid state which is more often hydatidiform mole (50%), less frequently abortion (25%) and normal term pregnancy (15%). Rarely, it is derived from germ cells in the ovary. In men, it commonly arises from germ cells in the testis.[1, 2, 3] Choriocarcinoma is notorious for its tendency of hematogenous dissemination. The most common metastatic sites are in the descending order of frequency; lung (60-95%), vagina (40-50%), vulva (10-15), brain, liver (10%), kidney and spleen (<5%).

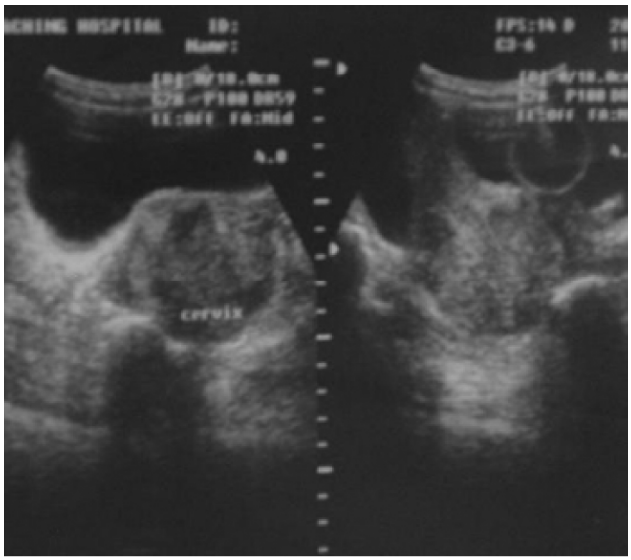

Fig: 1. An ill defined heterogeneous predominantly isoechoic mass lesion arising from the cervical part of uterus with invasion of the posterior wall of bladder.

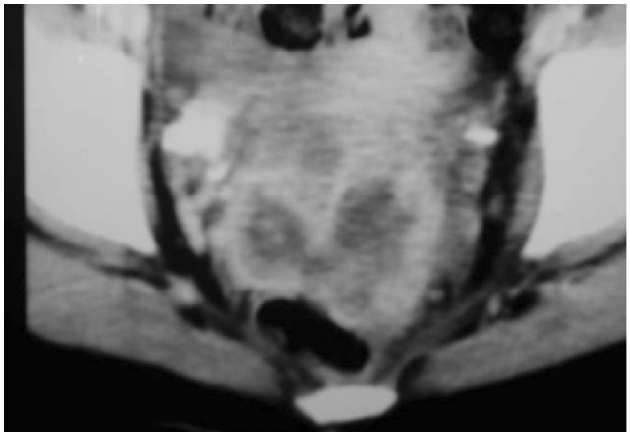

Fig: 2 A. Heterogenous soft tissue density mass lesion with central areas of hypodensities, arising from the cervical region of uterus.

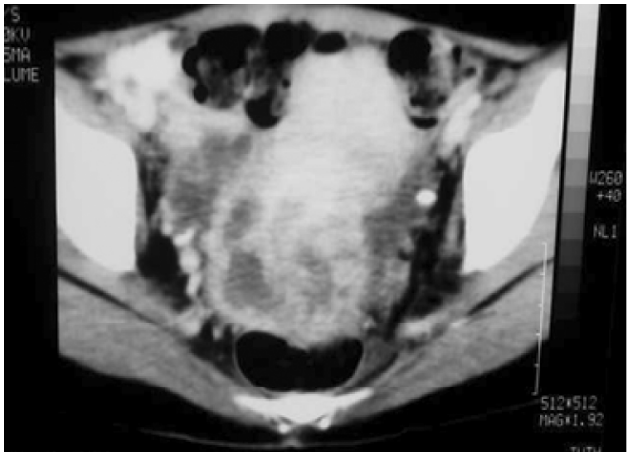

Fig: 2 B. The mass shows heterogeneous enhancement after I/V administration of contrast.

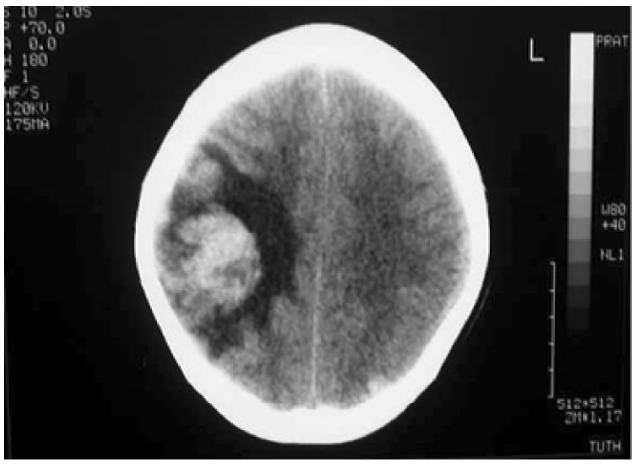

Fig. 3 A.

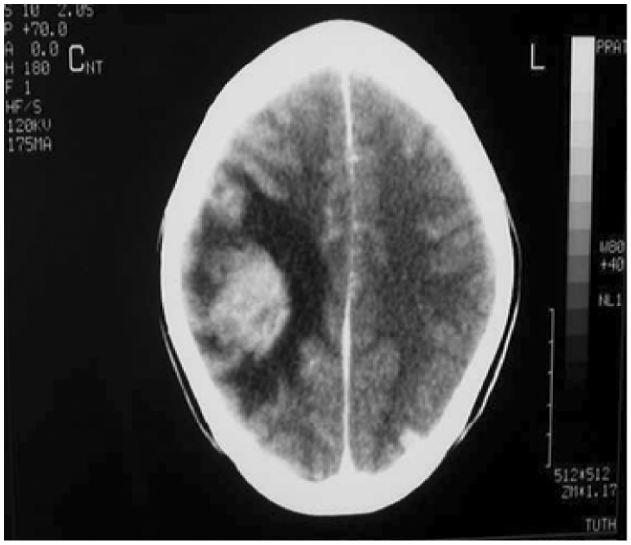

Fig: 3 B. Plain and contrast enhanced CT scan of head shows haemorrhagic lesion in the right parietal region with perilesional oedema.

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