CASE REPORT

A Case of Postpartum Choriocarcinoma: Delay in Diagnosis and Lessons Learnt

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Introduction

Pregnancy related causes must always be ruled out in women with irregular vaginal bleeding in the reproductive age group even if she is postpartum and lactating. Ultrasound diagnosis of presumed incomplete miscarriage should be followed up with histology or clinically to rule out gestational trophoblastic neoplasia. We describe a woman who was treated with progestogens for irregular vaginal bleeding and eventually she was diagnosed to have stage IV choriocarcinoma.

Case Report

A 23-year-old para 1 attended the accident and emergency department for irregular vaginal bleeding of one and half month's duration. She was on progestogen pills for more than a month for the same symptoms from a private

physician. She had delivered about 4 months ago and was breast feeding her infant. There was no history of fever, abdominal pain, nausea, or vomiting. She was not using any contraception. There was no history of passing clots. There was no other significant past or family history.

General examination was unremarkable and abdominal examination was normal. The uterus was normal size on bimanual examination with a closed cervical os. There was no tenderness on cervical movements or in the adnexa. Urine pregnancy test was positive and serum beta human chorionic gonadotropin (β -hcg) was 850 IU. A transvaginal ultrasound scan showed an endometrial thickness of 22 mm and normal ovaries. A provisional diagnosis of incomplete miscarriage was made based on her symptoms and ultrasound findings and three options were discussed with her—expectant management with observation, vaginal misoprostol and surgical evacuation of the uterus. The patient opted for vaginal misoprostol and she returned after a week with moderate vaginal bleeding when the general and pelvic examination was unchanged but on transvaginal scanning some cystic changes were noted in a thick endometrium and the ovaries were normal. Vesicular mole was suspected and a repeat β -hcg was 946 IU. She declined surgical evacuation of the uterus. She was reviewed again after a week when the β -hcg was 1,665 IU and she continued to have intermittent vaginal bleeding. The ultrasound showed mixed hypo/hyper echoic changes in the uterus with normal adnexa and she consented to surgical evacuation.

Evacuation of the uterus was carried out and minimal products were obtained and sent for histology. Serum

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Fig. 1 Section shows cyto and syncytiotrophoblastic in apposition demonstrating marked pleomorphism (arrow) and atypical mitosis (arrow head) associated with hemorrhage (H&E $\times 200$)

β -hcg after evacuation was 1,489 IU. Histology of the products examined revealed extensive hemorrhage and tumor necrosis associated with viable tumor cells showing

aposition cyto and syncytiotrophoblastic elements. These cells had large pleomorphic nuclei and prominent nucleoli and the impression was choriocarcinoma (Fig. 1). Chest X-ray showed metastases which were confirmed in computed tomography (CT) of the chest. A CT of the chest and abdomen showed two lung lesions, a focal lesion in the liver in segment V measuring 2 cm in diameter and a hyperechoic mass of about 3 cm in the uterus (Fig. 2). A repeat β -hcg after 4 days of evacuation of the uterus was 1,529 IU. She was referred to medical oncologist for chemotherapy and she was responding well to combination chemotherapy. Thyroid function tests were normal.

Discussion

Postpartum choriocarcinoma is a very rare complication of pregnancy with a reported UK incidence of 1 in 50,000 live births [1]. The main presenting complaint of the patient reported here was irregular vaginal bleeding 3 months after spontaneous vaginal delivery. She was prescribed progestogens and pregnancy test was done after a month of

Fig. 2 A contrast CT of the chest and abdomen showing metastases in the lungs (white arrow head in A), metastasis in the liver (arrows in B and C) and hyperechoic area in the uterus (white arrow in D)

hormonal treatment. Pregnancy and related disorders must be the initial diagnosis in young women with irregular vaginal bleeding as most of the women with vesicular mole (benign form of choriocarcinoma) present with irregular vaginal bleeding and diagnosed as delayed miscarriage or anembryonic pregnancy, as in this patient [2, 3]. Dobson et al. [4] reported nine cases of postpartum choriocarcinoma and in their series the time interval from antecedent pregnancy to onset of symptoms (vaginal bleeding) was 0–12 weeks. The same authors also reported a patient who was on progestogens for irregular vaginal bleeding postpartum [4].

The initial diagnosis of miscarriage in this patient was based on her symptoms, low levels of human chorionic gonadotropin and ultrasound findings. Historically majority of women with spontaneous miscarriage had surgical evacuation of the uterus. With the development of more refined diagnoses with transabdominal and transvaginal ultrasound standard management with surgical evacuation has changed to medical management with misoprostol and sometimes expectant management with no intervention. However, the role of medical management with misoprostol is an alternative only in cases of confirmed miscarriage either missed or incomplete [5]. As viable pregnancy was not documented in this patient at any stage, products should have been sent for histologic examination after misoprostol termination but unfortunately it was an outpatient treatment [6]. The diagnosis of molar pregnancy was suspected only in her second visit. In view of the maternal risks associated with ectopic and molar pregnancy, it was recommended that tissue obtained at the time of uterine evacuation (medical or surgical) has to be sent for histologic examination [5].

Gestational trophoblastic neoplasia (GTN) includes vesicular mole, choriocarcinoma, and placental site trophoblastic tumor (PSTT). The levels of serum β -hcg in this patient were in favor of PSTT, an extra villous infiltrating tumor, which causes invasion of myometrium and mainly consists of intermediate trophoblasts. PSTT can occur after a normal pregnancy, spontaneous abortion, termination of pregnancy, ectopic or molar pregnancy [7]. However, the immuno histochemistry in this patient was strongly positive for human chorionic gonadotropin and not for human placental lactogen (HPL) and the histology was choriocarcinoma.

Vaginal bleeding is the most common presenting symptom of choriocarcinoma diagnosed after miscarriage,

therapeutic termination of pregnancy or postpartum [8, 9]. The prognosis for women with choriocarcinoma after non-molar pregnancies may be worse, in part owing to delay in diagnosis or advanced disease, such as liver or CNS disease and this patient had metastases in the lung and liver at presentation [8, 9].

In conclusion, irregular vaginal bleeding in postpartum or lactating woman should be investigated for pregnancy related causes including GTN and medical/surgical methods of termination should always be followed up with histology if viable pregnancy had not been documented by scan.

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