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Case Report

A Case Report of a Rare Cause of Diagnostic Dilemma in the Management of Gestational Choriocarcinoma

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Abstract

Choriocarcinoma belongs to one extreme of molar pregnancy, the other end is hydatidiform mole. It is a fast-growing tumor that occurs in a woman's uterus but can easily metastasize to the lungs, liver, and brain. The abnormal tumor cells start in the tissue that would normally become the placenta. Choriocarcinoma developed after a normal pregnancy in 1 in 50,000, miscarriages in 1 in 15,000, and complete mole 1 in 40. The tumor may mimic uterine fibroid, especially when it presents as a uterine mass (which is not the common presentation) posing an initial diagnostic dilemma, as seen in our patient. The patient was an 18years P0+1 whose last normal menstrual period was a year before presentation. She presented with a history of loss of 14-week conception, then followed by 11months history of abnormal scanty vaginal bleeding lasting 21-27 days monthly, the patient was found to be mildly pale but had stable vital signs, she had a uterine mass of about 22weeks size, abdominal ultrasound scan revealed uterine fibroid. In the process of investigation serum pregnancy test was done and was found to be positive, with markedly elevated serum beta hcg. We made an assessment of choriocarcinoma and we commenced her on chemotherapy, she received 4 courses but with no decline in beta HCG. She had a total abdominal hysterectomy and histology confirmed choriocarcinoma, serum beta HCG was then immediately noticed to decline, she had further chemotherapy, and the patient did well subsequently. Huge choriocarcinoma may be mistaken for uterine fibroid, hence a high index of suspicion for choriocarcinoma is important if a patient presents with a recent history of miscarriage, uterine mass, vaginal bleeding, and a positive pregnancy test.

Keywords: ATBUTH, Choriocarcinoma, uterine fibroid.

INTRODUCTION

Choriocarcinoma is a tumor that is very responsive to chemotherapy but is a fatal disease if not diagnosed and treated early. The diagnosis is based on history, physical examination, and laboratory investigations. The diagnosis can be difficult if a serum beta HCG level is low and the characteristic features on abdominopelvic ultrasound can be confusing (as seen in our patient). Irrespective of the imaging modality used, choriocarcinoma may appear as a mass in the uterus [1]. The manifestation may be that of a discrete, central infiltrative mass. Its heterogeneous appearance correlates with tissue death and hemorrhage.

The risk factors for choriocarcinoma are molar pregnancy, history of miscarriage, ectopic pregnancy, or being pregnant at the age of less than 20 years, among others. The patient was less than 20 years old and had a miscarriage at 14 weeks.

Choriocarcinoma may present with an irregular vaginal bleeding, vomiting, and abdominal pain. Features of metastasis to the lungs, liver, and brain may also be observed. They may rarely present with abdominopelvic mass, as in this patient. On examination, the patient may be pale with hypotension and tachycardia, an enlarged uterus, and an ovarian cyst. Feature of vaginal metastasis may be seen in 30% of

cases. The full blood count may show anemia. Ultrasound may reveal a bulky mass in the uterus.

The study's objective is to emphasize an early presentation and correct diagnosis to allow early treatment to reduce morbidity and mortality from the pathology.

CASE REPORT

The patient was an 18-year-old P0+1 whose last normal menstrual period was a year before presentation. She presented with a history of loss of 14-week pregnancy, then followed by an 11-months history of abnormal scanty vaginal bleeding lasting 21-27 days monthly. The patient had an associated history of lower abdominal pain and lower abdominal swelling. There was also a history of a miscarriage during a 14-week pregnancy following which she had a manual vacuum aspiration, she was transfused two units of blood. There was no associated history of headache, fever, or dizziness. No associated history of weight loss, cough, respiratory difficulty, or yellowish discoloration of the eyes.

On examination, she was found to be a young girl, looking worried and anicteric, acyanosed, afebrile, but mildly pale. Her pulse rate was found to be 80b/min, BP 100/60mmHg, respiratory rate was 16 cycles/min. She was found to be fully conscious and alert, oriented in time place, and person. There was a uterine mass of 22- week -size which was non-tender, firm, and mobile. Vaginal examination revealed normal external genitalia and speculum examination revealed a closed cervix. The investigation result revealed a positive pregnancy test, serum beta HCG of 170,041 miu/mil. An abdominal pelvic ultrasound scan revealed a huge endometrial mass with a differential diagnosis of submucosal uterine fibroid and endometrial polyp. Chest x-ray suggested cardiomegaly (hypertensive heart disease), although features of lung metastasis such as cannonball appearance and lymphadenopathy were not observed. The full blood count, Electrolyte urea creatinine, and liver function test were normal. Based on the high level of serum beta HCG, her age, and previous history of miscarriage, she was assessed to be a high-risk patient having a WHO risk score of 10, she was commenced on chemotherapy using EMA-CO (Etoposide, Methotrexate, Dactinomycin, Cyclophosphamide, and Oncovin) regimen. She received four courses but there was no remarkable decrease in serum beta HCG levels or the size of the uterine mass. The patient was then counseled for TAH which she consented. Intra-op findings were those of a bulky uterus with multiple perforations on the posterior aspect and fundal region probably by trophoblastic tissue and the tumor was assessed to be at least FIGO stage 2. On the first post-operative day, serum beta HCG was found to be 1.3 miu/mil. The mass was taken for histology which revealed choriocarcinoma. She had 3 more courses of EMA-CO, and serum Beta HCG remained normal, she had a weekly serum beta HCG which was normal for three consecutive weeks, then monthly serum beta HCG for six months, which also remained normal at less than 1.4miu/mil each time. The patient subsequently was lost to follow-up.

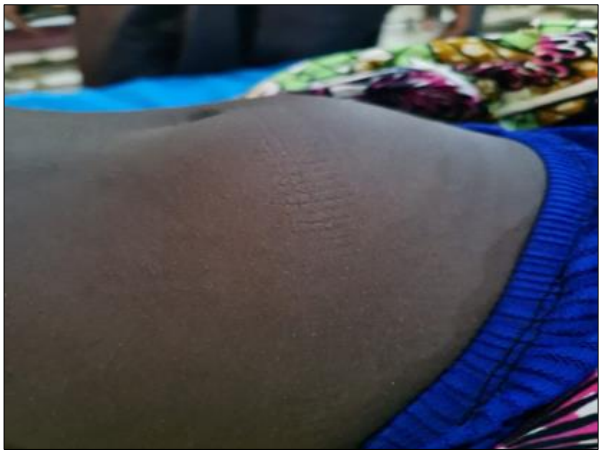

Figure 1: The Above Figure Showed a Uterine Mass of About 20 Weeks Sizes Before the Surgery

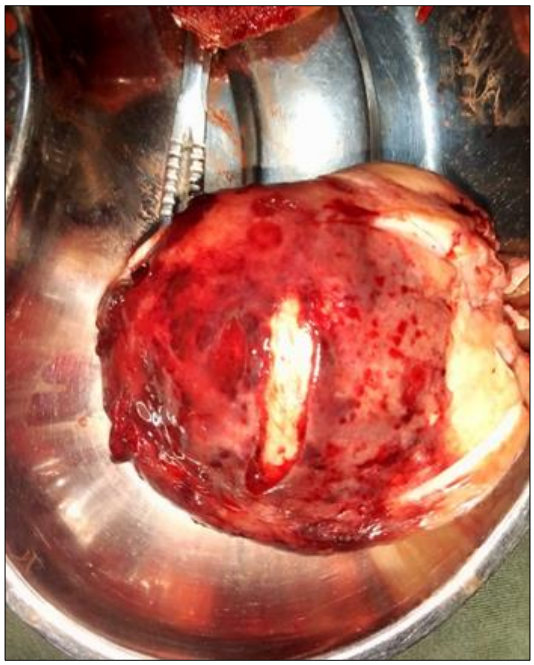

Figure 2: The Above Figure Showed the Uterus Removed, Showing Some Areas of Trophoblastic Invassion

DISCUSSION

Choriocarcinoma is the only female cancer curable with chemotherapy especially if the patient presents early. It constitutes gestational choriocarcinoma and non -gestational choriocarcinoma, the gestational choriocarcinoma belongs to the group of gestation trophoblastic disease whose common denominator is excessive secretion of human chorionic gonadotrophin [3]. The frequencies of choriocarcinoma in both Europe and North America are estimated to be 0.2 – 0.7/1000 of pregnancies each [4]. Choriocarcinoma occurs in nearly 50% of cases after vesicular mole and 25% of cases after

Abortion, 22.5% after a normal pregnancy, 2.5% after extra-uterine pregnancy [5]. It does not have chorionic villi, but complex sheaths of both anaplastic cytotrophoblastic and syncytiotrophoblastic cells. Figure 1 above shows our patient ready to have an abdominal examination, showing a uterine mass of about 22- weeks in size. The tumor may erode into the uterine vessel causing vaginal bleeding (or perforate myometrium, as seen in our patient, fig 2.) causing hemoperitoneum [6].

No specific ultrasonography features are described to diagnose choriocarcinoma, unlike vesicular mole, which has a characteristic snow-storm appearance on ultrasound scans [7]. In our patient, an abdominopelvic ultrasound scan revealed a huge endometrial mass with a differential diagnosis of submucosal uterine fibroid and endometrial polyps A retrospective analysis of sonographic and Doppler findings on a diagnosis of a GTD concluded that the abnormal sonographic findings are confined to the endometrial cavity in all cases of complete hydatidiform mole whereas soft tissue invasion, and cystic vascular spaces in the myometrium, were observed in invasive mole and choriocarcinoma [7].

Sonographic features in cases of proven choriocarcinoma were described as being variable: nodular type, submucosal type, macrocystic type, multicystic form, and compact and microcystic types with involvement of the surrounding areas [11]. They were also found to resemble other conditions of the uterine endometrium and myometrium [1]. A case report by Kovacs *et al*., presented a woman with an ultrasound diagnosis of uterine fibroid, but histology revealed mixed choriocarcinoma with epithelioid trophoblastic tumor of the uterus [8]. Fibroid appears as well-defined solid masses having a whorled appearance, and usually with a similar echogenic appearance to the myometrium, they can sometimes be hypoechoic. However, degenerative fibroids have complex features with cystic change [9]. In choriocarcinoma, magnetic resonance imaging of the uterus may show a high signal pattern outside the mass and an irregular low signal pattern inside the mass lesion of the T2 – T2-weighted image. The lesion is hypervascular and heterogeneous, and changes the normal appearance, sometimes extending to the parametrium [12]. Magnetic Resonance Imaging is highly reliable in the diagnosis of fibroids; non-degenerated fibroids are well-defined lesions of low signal intensity when compared with the myometrium in T2 –weighted images, and isointense on T1 – weighted images; but they can also be seen to have a high-intensity rim on T2 – weighted images. All types of degeneration in uterine fibroid produce low signals on T2 – T2-weighted images and may have heterogenic characteristics [12]. Hence, where facilities are available and affordable, an MRI is suggested in the case of choriocarcinoma rather than an ultrasound scan.

One of the management challenges in patients with choriocarcinoma is the side effects of the drugs, cost is also on the higher side, most of our patients get the drugs with difficulty because of poverty. Some of the drugs are also not readily available.

Spontaneous uterine perforation can be seen (as seen in our patient) as an initial choriocarcinoma presentation and also when resolution occurs while the patient is on follow-up for continuation of chemotherapy [10].

CONCLUSION

Choriocarcinoma may be mistaken for uterine fibroid, hence a very high index of suspicion for choriocarcinoma is important if a patient presents with a recent history of miscarriage, uterine mass, vaginal bleeding, and a positive pregnancy test.

Declaration of Patient Consent

We certify that appropriate consent forms were filled. She consented that her clinical information including images can be used in journals. She understood that efforts will be made to conceal her identity and that her name or initials will not be published, but anonymity cannot be guaranteed.

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REFERENCE

1. Goldfarb, J. A., Dinoi, G., Mariani, A., & Langstraat, C. L. (2020). A case of multi-agent drug resistant choriocarcinoma treated with Pembrolizumab. *Gynecologic Oncology Reports*, *32*.
2. Savage, P., Winter, M., Parker, V., Harding, V., Sita-Lumsden, A., Fisher, R. A., ... & Seckl, M. J. (2020). Demographics, natural history and treatment outcomes of non-molar gestational choriocarcinoma: a UK population study. *BJOG: An International Journal of Obstetrics & Gynaecology*, *127*(9), 1102-1107.
3. Shehu, C. E., Omembelede, J. C., Nnadi, D. C., & Ango, I. G. (2019). Management of Choriocarcinoma in a Tertiary Institution in North West Nigeria. *Age*, *15*(24), 25-34.
4. Boufettal, H., Coullin, P., Mahdaoui, S., Noun, M., Hermas, S., & Samouh, N. (2011). Complete hydatiforme mole in Morocco: epidemiological and clinical study. *Journal de gynecologie, obstetrique et biologie de la reproduction*, *40*(5), 419-429.
5. Hui, P. (2022). Gestational trophoblastic neoplasms. *Benirschke's Pathology of the Human Placenta*, 791-820.
6. Joshi, S. M., Das, T., Dagar, M., Srivastava, M., Ganguli, I., & Koul, R. (2020). A Rare Case of Choriocarcinoma. *IJOPARB*, 33.
7. Cecil, G. H., Chandramohan, A., & Peedicayil, A. (2021). Imaging in Gestational Trophoblastic

Disease and Implication of Uterine Artery Doppler Study. *Gestational Trophoblastic Disease: Benign to Malignant*, 53-65. Dasari, P. (2015). Missing choriocarcinoma may be easy but not suspecting it in a high-risk case can be potentially fatal. *Case Reports*, *2015*, bcr2014208526.

8. Kovacs, P., Mc Govern, P., Osmanagaoglu, M. A., & Furuhashi M. A (2013). Fibroid or cancer? A rare case of mixed Choriocarcinoma and Epitheloid Trophoblastic Tumor case report, Article ID 492754| https://doi.org/10.1155/2013/492754.
9. Anyanwu, M., Gassama, K., & Kandeh, M. (2019). Diagnostic dilemma of hyaline cystic degeneration of uterine fibroids. *Obstet Gynecol Int J*, *10*(3), 202-5.
10. Pushpalatha, K., Singh, B., Devalla, A., Sasidharan, S., & Panwar, H. (2021). Spontaneous Uterine Perforation in a Choriocarcinoma Presenting with Pyoperitoneum. *Journal of South Asian Federation of Obstetrics and Gynaecology*, *13*(4), 272-274.
11. Dasari, P. (2015). Missing choriocarcinoma may be easy but not suspecting it in a high-risk case can be potentially fatal. *Case Reports*, *2015*, bcr2014208526.
12. Huang, H., Ran, J., Xiao, Z., Ou, L., Li, X., Xu, J., ... & Li, F. (2019). Reasons for different therapeutic effects of high-intensity focused ultrasound ablation on excised uterine fibroids with different signal intensities on T2-weighted MRI: a study of histopathological characteristics. *International Journal of Hyperthermia*.