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Case Report

Hysterectomy as a life saving measure in choriocarcinoma: a case report

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ABSTRACT

Choriocarcinoma (CC) is a highly malignant tumour originating in the trophoblastic tissue. Typically occurring following molar pregnancies, its occurrence after full-term pregnancies is exceptionally uncommon. Hysterectomy has a limited role in the management of gestational trophoblastic neoplasia because of the high effectiveness of chemotherapy and the young age of patients. We present a case report of a 31-year-old patient who was referred to our hospital with massive vaginal bleeding, 20 days following evacuation of molar pregnancy.

Keywords: Choriocarcinoma, Hysterectomy, Trophoblastic tissue

INTRODUCTION

Choriocarcinoma, a type of gestational trophoblastic disease, is an uncommon and aggressive tumor. There are two main subtypes of choriocarcinoma gestational and non-gestational which exhibit distinct biological behaviours and prognoses. This disease involves uncontrolled growth and malignant transformation of placental cells, representing the most severe form within gestational trophoblastic disease.[1] While choriocarcinoma primarily affects women, it can also occur in men, typically as a part of mixed germ cell tumor.[2] Most cases of choriocarcinoma develop from the malignant transformation of a complete molar pregnancy, although it can also occur following term pregnancy, miscarriage, or even ectopic pregnancy.[3]

CASE REPORT

A 31-year-old, P1 L1 A4, previous caesarean section (CS) was referred to our hospital with torrential vaginal bleeding 20 days post evacuation of complete mole. She had her antenatal checkups from nearby hospital and was detected with molar pregnancy on ultra sound at 8 weeks gestation. She underwent suction evacuation for the same with a pre-evacuation beta human chorionic gonadotropin (hCG) >30,000. Post evacuation beta hCG showed rising trend up to 2,53,500 mIU/ml. She had massive vaginal bleeding which was not controlled by supportive medications and was referred here. She was initially hemodynamically stable at the ER. Per speculum examination showed bleeding and pelvic examination revealed a bulky uterus. TVS was done, showing distended lower endometrial cavity and cervical canal with heteroechoic lesion with cystic areas - showing significant vascularity measuring 5.1×3.6×4 cm (39 cc). There was also echogenic fluid and hyperechoic contents in the vaginal cavity suggestive of hematocolpos. She had another sudden episode of bout of bleeding after examination and managed immediately with suction evacuation and simultaneously started with uterotonics-methergine, PGE1, oxytocin followed by vaginal packing. As the bleeding persisted from lower uterine segment soaking the pads, condom tamponade was applied. But bleeding continued, hence proceeded to SR cannula and transvaginal uterine artery clamp. Despite all the measures, bleeding could not be stopped and she

developed hypotension (BP-90/50 mmHg) and tachycardia. Immediately, blood transfusion was commenced with packed cells and FFP and shifted to OT for Emergency hysterectomy and bilateral salpingectomy conserving the ovaries after consent. Intra operatively, there was serosanguinous fluid in the peritoneal cavity, ballooning of lower uterine segment and defect in the previous scar with invasion of placental tissue into the scar. Clots and placental bits was seen through the defect behind the bladder. Complete hemostasis was ensured and abdomen closed with drain in situ. Post op period was uneventful with daily monitoring of vitals and urine output. Biopsy reported as choriocarcinoma with IHC KI67 60-70% suggestive of high grade. Hence thoracic computed tomography (CT) was done to rule out metastases and referred to Oncology department. She was stratified as low risk with a FIGO Prognostic score of 6. Hence started with single agent chemotherapy with methotrexate and under continuous follow up with beta hCG negative.

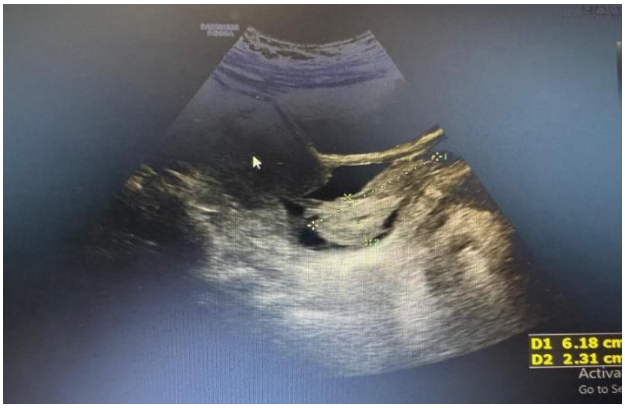

Figure 1: TVS showing heteroechoic lesion in the cervical canal and vagina.

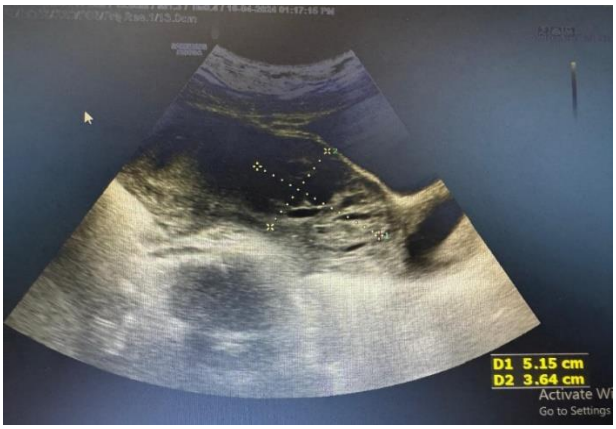

Figure 2: Hetero echoic contents in the lower uterine segment.

DISCUSSION

Gestational choriocarcinoma is a rare and aggressive cancer originating from abnormal placental trophoblastic cells. It lacks typical placental structures and predominantly affects women aged 25 to 39 years, with a higher incidence noted in Asian, Native American, and African-American populations. Risk factors include prior complete hydatidiform mole, older age, prolonged oral contraceptive use, and blood type A.[4]

The exact process by which cytotrophoblast cells transform malignantly is not fully understood but involves their potential as stem cells. Early detection and chemotherapy are critical due to the tumor's rapid growth and metastatic potential. Data on the prevalence of choriocarcinoma is limited, but it is estimated to occur in approximately 1 in 20,000 to 40,000 pregnancies.[5]

Postmolar gestational trophoblastic neoplasia (GTN) is typically identified through monitoring hCG levels, even in the absence of symptoms. During the FIGO Gynecology Oncology Committee meeting in 2000, a consensus was reached on defining postmolar GTN based on changes in hCG levels, histological findings, and specific diagnostic tests.[6]

Choriocarcinoma is known for its high tendency to spread to other parts of the body, making a thorough evaluation crucial for deciding treatment. Patients are categorized into low and high metastatic risk groups based on the FIGO-WHO 2000 score.

For low-risk patients, single-agent chemotherapy is recommended, while those at high risk require multi-drug chemotherapy regimens-EMACO, as per the FIGO-WHO 2000 classification.[7]

It responds very well to chemotherapy. The cure rate, even for cases that have spread (metastatic choriocarcinoma), is approximately 90-95%. While chemotherapy is the primary treatment approach, in some cases, surgery and radiation may be needed in addition.[4] In cases where patients are over 40 years old and no longer desire fertility, hysterectomy may be recommended as a treatment option for gestational trophoblastic tumors. Additionally, hysterectomy is warranted in situations where there is life-threatening haemorrhage.

The decision to proceed with surgery is tailored to each patient’s specific circumstances and disease stage. Surgical intervention may be necessary in cases involving severe complications such as peritonitis, uncontrollable bleeding, or resistance to chemotherapy. Laparoscopic approach of hysterectomy has also been done in GTN.[8]

CONCLUSION

Surgical intervention remains a significant component in the treatment of gestational trophoblastic tumors. While these tumors generally respond well to chemotherapy, minimizing the need for extensive surgical procedures, certain indications for surgery still exist.[9] Earliest detection and prompt initiation of chemotherapy is a key

treatment strategy for GTN. Recent advancements have focused on refining therapeutic strategies.

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