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POSTMENOPAUSAL CHORIOCARCINOMA: AN OVERVIEW OF A RARE MALIGNANCY

Obstetrics & Gynaecology

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KEYWORDS

INTRODUCTION

Gestational trophoblastic disease (GTD) involves both benign and malignant entities that include hydatidiform mole (complete and partial), choriocarcinoma, invasive mole, epithelioid trophoblastic tumor (ETT), and placental site trophoblastic tumor (PSTT) .[1] Gestational trophoblastic neoplasia (GTN) involves the malignant entities of GTD, including choriocarcinoma, invasive mole, epithelioid trophoblastic tumor (ETT), and placental site trophoblastic tumor (PSTT), all of which can metastasize and be fatal if not treated in a timely and effective manner.[2] The mortality of GTNs was improved greatly by follow-up after hydatidiform mole and the development of anticancer drugs, human chorionic gonadotrophin (hCG) measurement, and drugs for adverse effects by chemotherapy.[3]

In this case report, we present the diagnosis of a choriocarcinoma in a 50-year-old lady with postmenopausal bleeding . Diagnosis was established by imaging, endometrial biopsy and measurement of serum beta-human chorionic gonadotropin (hCG) levels.

CASE REPORT

A 50-year-old woman presented with complains of intermittent vaginal bleeding in the months prior. She attained menopause at the age of 48 years. All her deliveries were vaginal, uncomplicated , term pregnancies , her last pregnancy being 20 years back . She had no history of gestational trophoblastic disease. On General examination , Pallor was present. On abdominal examination , uterus was just palapable, no tenderness was ilicited . Pelvic examination revealed vulva and vagina normal, Cervix multiparous and Uterus of 12- 14 weeks, soft, non-tender, B/L fornices non-tender and free. Pelvic ultrasound scan showed Uterus of 14 x 9 cm with several heteroechoic lesions, no internal vascularity, and moving echoes inside the endometrial cavity (? Clot). After which she was planned for Endometrial biopsy . Following the discovery of tiny vesicles during the endometrial biopsy (Figure 1) , the serum beta-hcg was investigated which was found out to be 101050 microIU/mL. Histopathology of endometrium showed fibrin hemorrhage and small fragments with atypical trophoblastic cell proliferation comprising of intermediate trophoblast and synctiotrophoblast (Figure 2 and 3).Mitotic activity also noted. Diagnosis of Choriocarcinoma was suspected. Tumor cells were positive for beta-human chorionic gonadotrophin (beta-hCG) and KI 67 on immunohistochemistry (Figure 4 and 5). An abdominal/pelvic computerized tomography (CT) scan with intravenous (IV) contrast injection revealed uterus of size 13 x 11x 8 cm , showing multiple irregular heterogeneously enhancing lesion largest of 2 x1x1 cm . There is loss of interface with overlying myometrium with its infiltration . Rest of endometrial cavity shows peripheral hyperdense and central hypodense fluid collection . Renal function tests, liver enzymes, thyroid profile, and coagulation profile were within normal limits. Brain MRI scans were normal. CECT of thorax revealed 3 solid lung nodules in left lower lobe (Figure 6) . The tumor was classified as a high-risk stage 1 gestational trophoblastic neoplasm (GTN) with a staging score of 11 according to the guidelines of the International Federation of Gynecology and Obstetrics (FIGO) with metastasis to lungs . Total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed and cut-section showing vesicles and areas of hemorrhage (Figure 7). Pathological finding in the specimen sent for histopathological examination concluded the diagnosis of Choriocarcinoma. Patient was started on combination of Etoposide , Methotrexate , Dactinomycin followed by Cyclophosphamide and Vincristine. Patient responded well , her beta-HCG value decreased to 7531 mIU/ml after first cycle and she was advised for follow-up chemotherapy regimen which was repeated every 2 weeks for 5 cycles. After 5 cycles of chemotherapy , beta-HCG level dropped below 5 mIU/ml .She was followed up weekly till 3 consecutive normal values of serum beta-HCG . After that additional 2 cycles of chemotherapy given according to FIGO guidelines for treatment of high risk cases of GTN. Patient was followed up with serum beta-HCG levels monthly for 1 year. After which , she is planned to be followed up every 6 monthly for atleast 3-5 years.

DISCUSSION

Choriocarcinoma is a rare but aggressive form of gestational trophoblastic neoplasm, typically associated with pregnancy. Its occurrence in postmenopausal women is particularly unusual and presents unique diagnostic and management challenges.Gestational choriocarcinoma has an incidence of one in 20,000 to one in 25,000 in western countries.[4] One report from India quotes the incidence of choriocarcinoma as one in 2958 pregnancies.[5] When diagnosing choriocarcinoma in postmenopausal women, it can be challenging to distinguish it from other types of cancer, especially if there is a possibility of it being related to endometrial carcinoma.Histological examination (looking at tissue samples under a microscope) is crucial for diagnosis. In some cases, choriocarcinoma has been found alongside other cancers, which complicates the diagnosis. Khuu *et al*. reported a case of uterine carcinosarcoma with choriocarcinomatous dedifferentiation in a 71-year-old woman.[6] Even if metastatic, choriocarcinoma is considered to be a curable gynecologic cancer; the overall survival rates are over 80%.[7] Chemotherapy has improved the survival rates from 19% to 90% .[8] In summary, the management of choriocarcinoma involves quick diagnosis, immediate chemotherapy, and ongoing monitoring to ensure successful treatment.

CONCLUSION

This case highlights the necessity for awareness of choriocarcinoma in postmenopausal women and emphasizes the importance of prompt diagnosis and treatment for improved outcomes. Continuous follow-up is crucial to detect any recurrence.

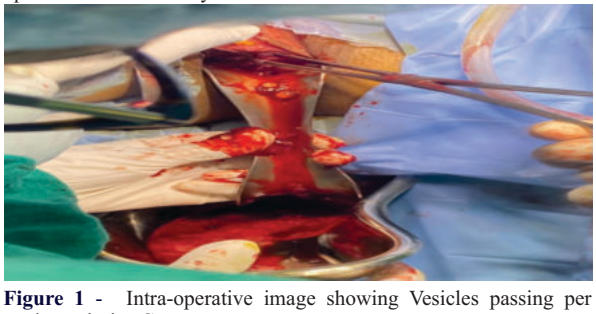

Figure 1 - Intra-operative image showing Vesicles passing per vaginum during Curettage

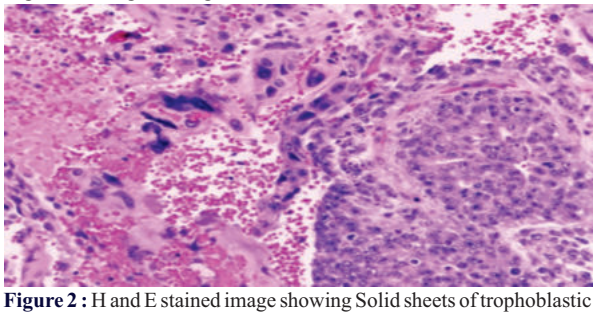

Figure 2 : H and E stained image showing Solid sheets of trophoblastic

cells without chorionic villi in a background of haemorrhage and necrosis.

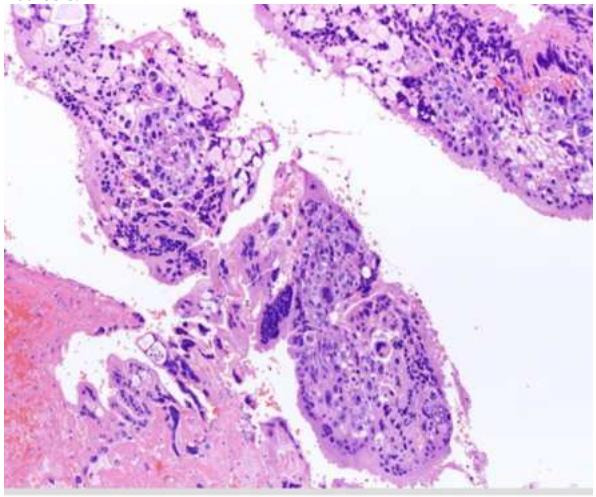

Figure 3: Microscopic images shows cytotrophoblast , Synctiotrophoblast and Intermediate trophoblast

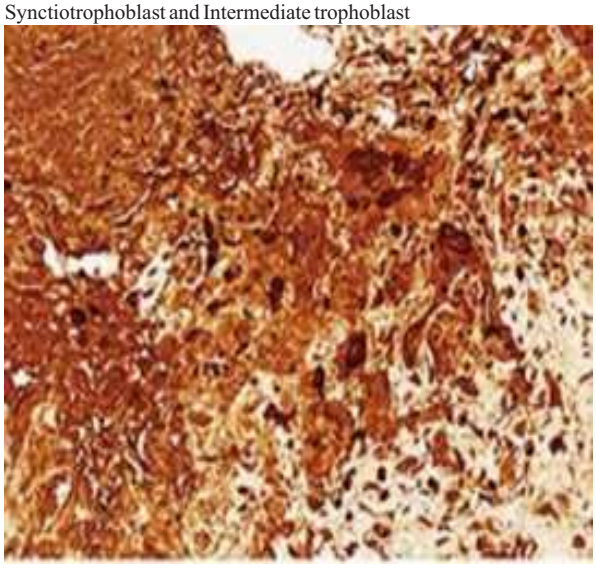

Figure 4-Immunohistochemistry image showing positive staining for beta-HCG

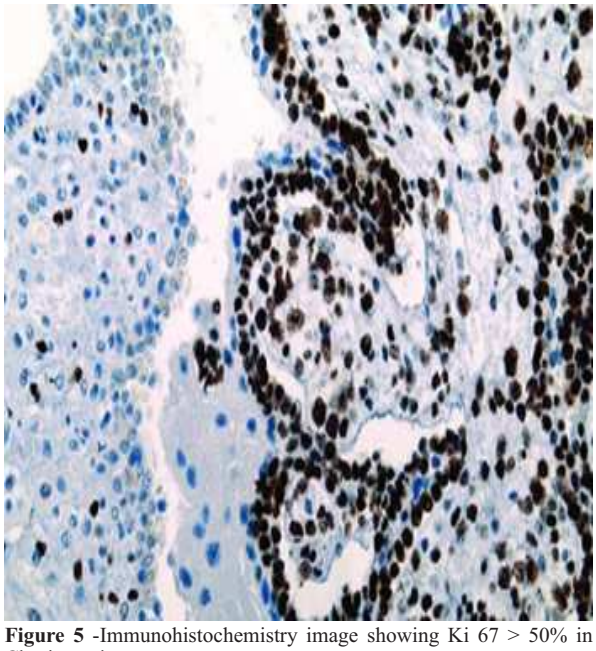

Figure 5 -Immunohistochemistry image showing Ki 67 > 50% in Choriocarcinoma

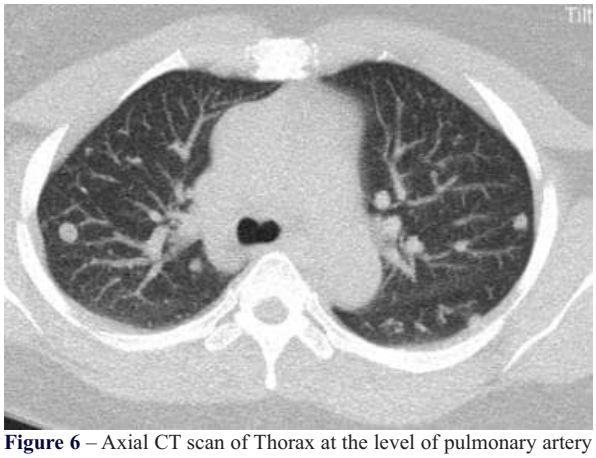

Figure 6 – Axial CT scan of Thorax at the level of pulmonary artery bifurcation demonstrating multiple round nodules.

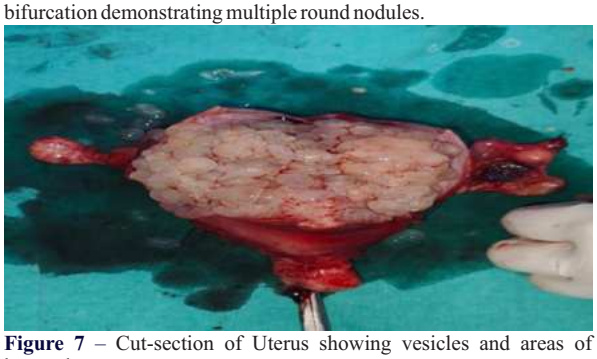

Figure 7 – Cut-section of Uterus showing vesicles and areas of hemorrhage

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