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Case Report

Rare Presentation of Non-Gestational Choriocarcinoma Ovary with Vaginal Metastasis- Case Report

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ABSTRACT

Background: Ovarian choriocarcinoma is an extremely rare entity of ovarian cancer. It is classified as gestational (GOC)and non-gestational ovarian choriocarcinoma (NGOC). NGOC is divided into two types-pure and mixed. The incidence of GOC-1 is 369,000,000, while NGOC contributes to about 0.6% of malignant ovarian germ cell tumors.

Case Report: 22-year-old nulligravida presented to ER with c/o heavy bleeding PV since 1 month with unstable vitals, CT scan 11/9/23- s/o? large subserosal fibroid of size 10x7cm/? adnexal mass with vaginal metastasis. She was taken up for laparotomy to achieve hemostasis and intraoperatively 9*8cm solid, multinodular dark red mass replacing almost the entire right ovary with dense adhesions to the fallopian tube, uterus, and lateral pelvic wall, proceeded for adhesiolysis and right salpingo-oophorectomy. HPE S/O NGOC.

Conclusion: NCGO mostly spreads to the adjacent organs, and often commonly metastasizes to distant organs, considered to have a poor prognosis compared to GCO

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INTRODUCTION

Ovarian choriocarcinoma is an extremely rare entity of ovarian cancer. It is classified as gestational (GOC)and non-gestational ovarian choriocarcinoma (NGOC). NGOC is divided into two types and mixed. The incidence of GOC-1 is 369,000,000, while NGOC contributes to about 0.6% of malignant ovarian germ cell tumors [1].

NGOC unrelated to pregnancy usually forms by RETRODIFFERENTIATION to an earlier embryonic cell stage of somatic tumors that have previously undergone neoplastic transformation [2]. NGOCs grow rapidly and relatively have worse prognosis and Imaging studies can detect metastatic lesions in the lungs, pelvis, vagina, and liver.

AIMS AND OBJECTIVE

Reporting a rare case of NGOC with recurrent torrential bleeding episodes from vaginal metastasis with timely surgical intervention, chemotherapy, and radiotherapy in a multidisciplinary approach for a better prognosis.

CASE REPORT

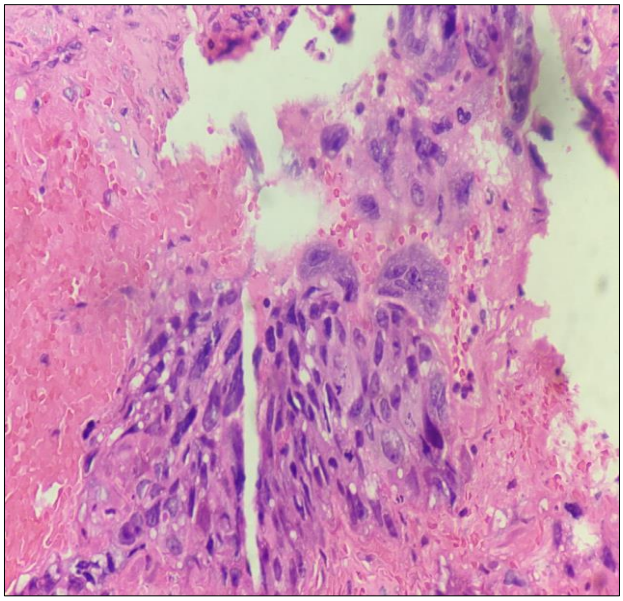
22-year-old nulligravida presented to ER with c/o heavy bleeding PV since 1 month with unstable vitals. She was evaluated at a local hospital and conservatively managed with 4 pints of blood transfusions for anemia. USG on 10/9/23- Bulky uterus with submucosal fibroid with necrosis with active bleeders. CT scan 11/9/23- s/o? large subserosal fibroid of size 10x7cm/? adnexal mass with vaginal metastasis. She was therefore referred to a higher center for multidisciplinary management. Her preoperative labs showed Hb of 8 g/dl and a coagulation profile within the normal range. Serum tumor markers were: β-hCG of 9,97,220 mIU/ml (normal, 0–5 mIU/ml) and Ca 125 was 171.6 U/ml (normal <35 U/ml, both parameters elevated. The other markers like CA19.9, CEA, and AFP were within range. These values of tumour markers strongly favored the diagnosis of malignant ovarian germ-cell tumors. X-ray chest detected few lung opacities. Per speculum examination revealed torrential bleeding from a 2*2cm mass in the vagina suspicious of vaginal metastasis.

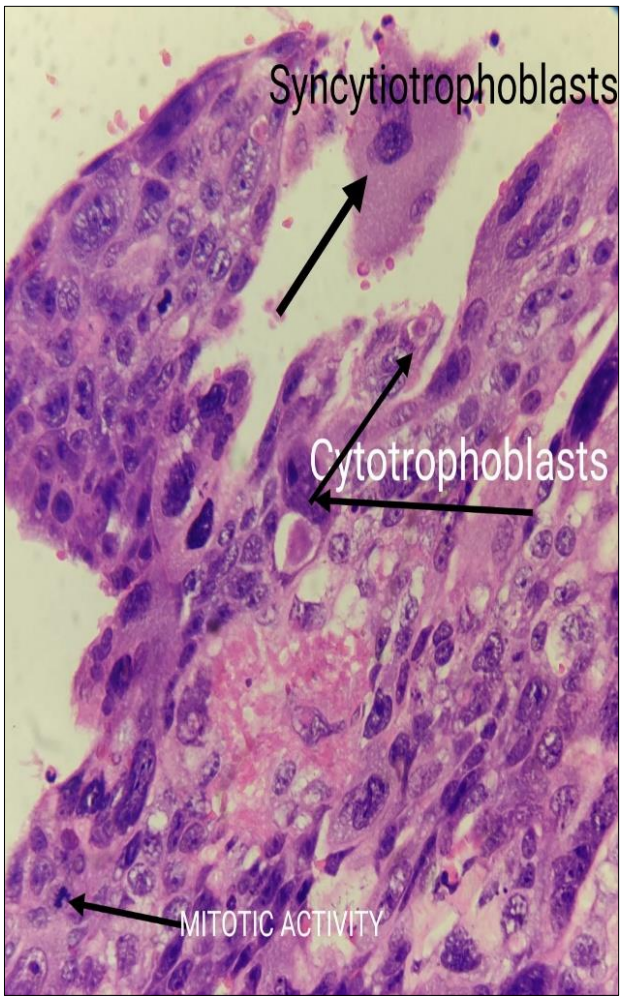
She was taken up for laparotomy to achieve hemostasis and intraoperatively 9*8cm solid, multinodular dark red mass replacing almost the entire right ovary with dense adhesions to the fallopian tube, uterus, and lateral pelvic wall, proceeded for adhesiolysis and vaginal metastasis biopsy, right salpingo-oophorectomy and to preserve patients fertility another ovary was left intact. Blood and blood products were transfused intraoperatively and postoperatively she was shifted to ICU and she had 2nd episode of bleeding from vaginal metastasis, so she was taken up for hemostatic radiotherapy. Further proceeded with other cycles of radiotherapy and chemotherapy as per the advice of the medical oncologist and radiation oncologist

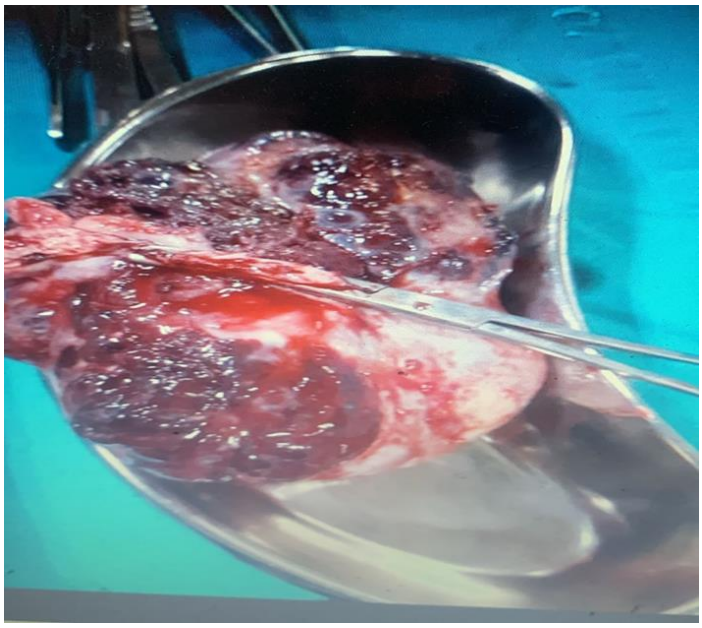
Thereafter our patient was treated with 5 cycles of Bleomycin, Etoposide, and Cisplatin chemotherapeutic agents with close follow-up of serum beta hCG levels which declined after 90 days post-surgery.

HPE Report

- Mixed germ cell tumor with non-gestational choriocarcinoma and probable admixed embryonal carcinoma.
- A tumor is seen involving the right ovary with capsular breach and is adherent to the right fallopian tube wall. Vaginal growth also shows similar tumor morphology
- No lymphovascular emboli.







DISCUSSION

Pure non-segmental ovarian choriocarcinoma is a high-grade malignancy and extremely rare, has no association with pregnancy, and only fewer than 100 cases reported to date.

NGCO predominates in adolescents, young females, and sometimes in postmenopausal women and presents with clinical symptoms like pain abdomen, bleeding per vagina, amenorrhea, nausea, vomiting, weight loss, pelvic mass, precocious puberty, and other endocrine abnormalities [3][4]. One of the differential diagnoses of NGCO is GCO and both have the same clinical manifestations and histology. Although no significant immunohistochemical differences were noted between the both, however, the chemotherapeutic agents vary. GCO can be treated with a single chemotherapeutic agent with methotrexate, actinomycin D etoposide, or in combination therapy. NGCO is however generally treated with a BEP regimen (Bleomycin, Etoposide, Cisplatin). Both of these tumors potentiate to have early hematogenous spread to various organs that include the vagina, liver, lung, brain, bone and other viscera.

Fisher et al diagnosed choriocarcinoma first in 1992 by analyzing DNA polymorphisms by site-specific microsatellite probes to detect RFLP (restriction fragment length polymorphisms of tumour tissue by comparing the blood samples from patients as well as their partners. However due to expensiveness of the method it has not been used much in clinical practice [5].

NGCO management protocols include surgical ablation combined with postoperative chemotherapy in most of cases. NCGO usually has a poor prognosis, however, data documented showed that approximately 76% of cases manifested with no disease and were followed until 2–84 months later.

CONCLUSION

NCGO often spreads to the adjacent organs, and most commonly metastasizes to distant organs like the lungs and brain, and it is unresponsive to single-agent chemotherapy with a poor prognosis compared to GCO.

Overall survival of FIGO stages 1,2, and 3 is 100% over 3 years, with a survival rate of FIGO stage 4 is 25% at 3 years, of which pure type has 94%, while mixed type has just 50% overall survival at 3 years. Therefore, it is vital to distinguish NGCO from GCO.

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