A rare case of choriocarcinoma ovary: Case report

Divya[1*], Sarita Singh[2], Achla Batra[3], Rupali Dewan[4]

[1,2]Assistant Professor, [3]Professor and Consultant, [4]Professor and HOD, [1-4]Dept. of Obstetrics and Gyncology, [1]Employees' State Insurance Model Hospital, Basai Dara pur, Bali Nagar, [2-4]Vardhman Mahavir Medical College and Safdarjung Hospital, Delhi

***Corresponding Author: Divya**
Email: divambbs@gmail.com

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Abstract
Introduction: Choriocarcinoma ovary is a rare neoplasm. It is gestational or nongestational. Very few cases of NGCO have been reported.
Case Report: We describe a case of a multiparous 31 year old woman who came to gynae receiving room with acute pain abdomen in shock. On examination abdominal distension with ascitis was present. On pervaginal examination uterus was bulky, os was closed and tenderness in right fornice was present. Her UPT was positive and blood was aspirated in culdocentesis. Emergency laprotomy was done with a provisional diagnosis of ectopic pregnancy, followed by right sided salpingoophrectomy with left sided tubal ligation. A right ovarian mass around 6X7 cm was found ruptured and was bleeding profusely. There was 2 liters of haemoperitoneum. Patient was transfused 2 units of PCV and 4 units of FFP. Postoperative period was uneventful. Her βhcg levels were 42,416, 48 hours postsurgery. Histopathological and immunohistochemical report were suggestive of nongestational Choriocarcinoma ovary showing sheets of cytotrophoblastic and syncytiotrophoblastic cells and extensive areas of haemorrhage and necrosis. Patient was started on BEP chemotherapy. Computed tomographic scan revealed no brain or lung metastases. Though she took 3 cycles and went LAMA.She was followed up on phone and was reportedly alive and healthy.

Keywords: Choriocarcinoma, Non gestational, Ovarian cancer.

Introduction
Choriocarcinoma ovary is of two types, non gestational or gestational.The gestational type arises from an ovarian pregnancy or is of metastatic origin from uterine choriocarcinoma, The estimated incidence is 1 in 369 million pregnancies[1]whereas the nongestational type is an extremely rare entity with ≤0.6% of all ovarian neoplasms.[2] pure non gestational choriocarcinoma ovary with such clinicopathologic features is extremely rare. Herein we discuss the diagnosis and treatment together.

Case Report
A 31 year old P3L3 female presented in gynae emergency room. Her last child birth was 1year back through vaginal route with no history of molar gestations or abortions. She had acute pain abdomen, severe pallor, hypotension and tachycardia. On examination abdominal distension with ascitis was present. On pervaginal examination uterus was bulky, os was closed and tenderness in right fornice was present. An informed written consent was taken for an emergency laprotomy in view of provisional diagnosis of ruptured ectopic pregnancy. Laparotomy was done with right sided salpingoophrectomy and left sided tubal ligation. A right ovarian mass around 6X7 cm was found ruptured and was bleeding profusely. (Fig. 1)There was 2 liters of haemoperitoneum. Two units of packed cell volume and 4 units of fresh frozen plasmawere transfused to the patient. Postoperative period was uneventful. Her βhcg levels were 42,416, 48 hours postsurgery. Histopathological and immunohistochemical report were suggestive of nongestational Choriocarcinoma ovary showing sheets of cytotrophoblastic and syncytiotrophoblastic cells and extensive areas of haemorrhage and necrosis. (Fig. 2) Patient was started on bleomycin, etopside and cisplatin chemotherapy. Computed tomographic scan revealed no brain or lung metastases. Though she took 3 cycles and she left hospital against medical advice.She was followed up on phone and was reportedly alive and healthy.She was requested to come to hospital but did not come.

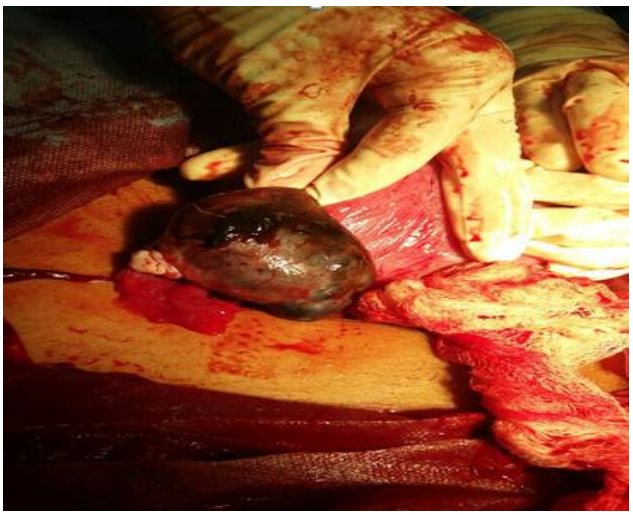

Fig. 1: This image shows 5x7 cm ovarian mass bleeding profusely

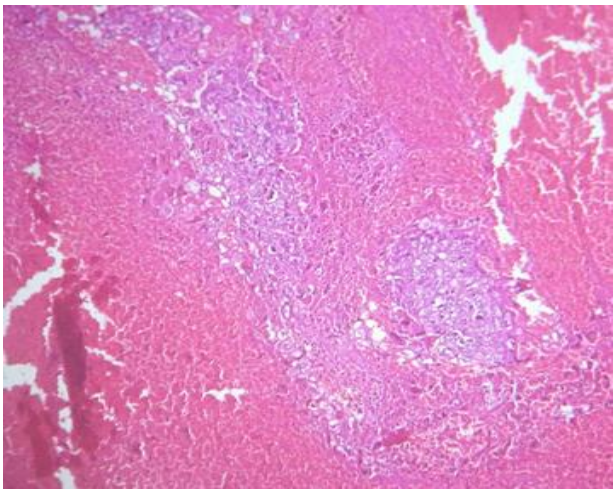

Fig. 2: trophoblastic cells shows pleomorphic and irregular hyperchromatic nuclei

Discussion

Choriocarcinoma constitutes 10 to 20% of mixed germ cell tumours.[2] The diagnostic criteria for NGCO was described by Saitoetal in 1963. - uterine cavity to be empty and not diseased,,histopathologically confirmation to be present and molar pregnancy to be ruled out[3]

Pure non gestational ovarian choriocarcinoma is very difficult to diagnose preoperatively specially with a clinical picture like this. Presence of an adnexal mass with an elevated serum β-hCG level, irregular vaginal bleeding with positive culdocentesis in a patient of reproductive age group goes in favour of ectopic pregnancy pre-operatively. Diagnosis is confirmed by histopathologic finding. Indeed, the presence of malignant cytotrophoblasts and syncytiotrophoblasts, immunohistochemical staining with β-hCG, and placental lactogen are diagnostic for pure NGCO. There are no distinctive ultrastructural or immunohistochemical differences between gestational and non-gestational choriocarcinomas. Thus, to distinguish a gestational ovarian choriocarcinoma from a pure non-gestational ovarian choriocarcinoma Molecular genetic analysis or paternal genotyping is a reliable method.[4-7] However, since such techniques are always expensive and not generally available in all medical centers, the application is limited.

Nongestational choriocarcinoma of the ovary is unilateral and treatment is done by salpingo-oopherectomy and BEP regime of chemotherapy is administered. In gestational cases total abdominal hysterectomy with bilateral salpingo-oophorectomy is done and EMACO regime is administered.Serial beta hcg level monitoring should be done for follow up and to evaluate the therapeutic response.[8] In our case, the patient was 31 years old young female complained of severe pain abdomen and was in hypovolemic shock. Emergency left sided salphingo-oophorectomy was done. Postoperative beta – hcg was high 42,416 miu/ ml. Grossly, the ovarian tumour measured 6x7 cm and the cut section was brown in colour (Fig. 1). On microscopic examination there were areas of haemorrhage and necrosis with viable tumour cells at the periphery showing syncytiotrophoblasts and cytotrophoblasts. Trophoblast cells showed hyperchromatic nuclei (Fig. 2). On sectioning of the specimen, no germ cell elements other than choriocarcinoma were detected. In addition, no history of pregnancy was present and no corpus luteum was detected in the ovarian tissue section. So we diagnosed the case as nongestational pure choriocarcinoma. Postoperative chemotherapy was given Bleomycin, Etoposide & Cisplatin of which she took 3 cycles. Though unfortunately patient went LAMA and her treatment was incomplete. She was followed up on phone and was reportedly alive and healthy.

Conclusion

This is a case of pure non gestational choriocarcinoma ovary. There was no other germ cell component and absence of any uterine or molar pregnancy. It is important to distinguish the origin of pure extrauterine choriocarcinomas for suitable treatment.

Conflict of Interest: None.

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