(International Print/Online Journal)

SJIF IMPACT FACTOR: 4.617
PUBMED-National Library of Medicine ID-101739732

ISSN (Print): 2209-2870
ISSN (Online): 2209-2862

International Journal of Medical Science and Current Research (IJMSCR)
Available online at: www.ijmscr.com
Volume2, Issue 6, Page No: 341-343
November-December 2019

Malignant Mixed Mullerian Tumor of Ovary with Metastatic Deposits – A Case Report

Dr. Niti Dalal[1], Dr. Promil Jain[2], Dr. Arushi Goel[3], Dr. Sonu Choudhary[3], Dr. Veena Gupta[4], Dr. Rajeev Sen[5]
[1]Senior Resident [2]Associate Professor, [3]Resident, [4]Professor, [5]Senior Professor & HOD
Department of Pathology, PGIMS, Rohtak

***Corresponding Author:**
Dr. Niti Dalal
Department of Pathology, PGIMS, Rohtak

Type of Publication: A Case Report
Conflicts of Interest: Nil

ABSTRACT
Malignant mixed Mullerian tumor (MMMT) of ovary is an uncommon aggressive neoplasm, composed of both malignant epithelial and mesenchymal components. It occurs most commonly in postmenopausal women. We, herein, report a case of MMMT of ovary in a 62 years old female presented with pain and distension of abdomen.

Keywords: Mullerian tumor, Ovary, Metastasis.

INTRODUCTION

Malignant mixed mullerian tumors of ovary is a very rare tumor accounting for is < 1 % of ovarian malignancies.[1] These are most commonly seen in nulliparous and postmenopausal women.[2] It is a biphasic neoplasm having both epithelial and mesenchymal components.[3] It is a biologically aggressive tumor with poor prognosis.[4] We report a case of patient who presented with distention of abdomen and was diagnosed to be having adenocarcinoma metastatic deposits of adenocarcinoma in ascitic fluid. Later on, detailed workup, she was diagnosed with Malignant mixed mullerian tumor of the ovary.

CASE

A 62 years postmenopausal female presented with pain and distension of abdomen. The patient was a known case of hypothyroidism. Abdominal USG showed free fluid 3+. Ascitic fluid was received for cytology. The fluid was hemorrhagic and smears revealed atypical cells in groups and 3-D clusters which was consistent with metastatic deposits from adenocarcinoma. On detailed workup, her serum CA125 levels was very high (1923 U/mL). CECT abdomen showed a solid cystic lesion measuring 10 X 7 cm in adnexa with enhancing soft tissue component, left ovary was not separately visualised. A left ovarian malignancy was suspected. The patient underwent total abdominal hysterectomy with bilateral salpingo-oophorectomy and biopsies from omental deposit were also taken. On gross examination, left ovary was enlarged. Tumor was lobulated with areas of hemorrhage and necrosis. However, right ovary appeared normal. Cut section of tumor showed solid, cystic areas with irregular papillary excrescences. Microscopic examination showed a biphasic tumor revealing malignant epithelial and sarcomatous element. Sarcomatous component was homogenous. A diagnosis of malignant mixed mullerian tumor of ovary with metastatic deposits in omentum was given. The patient was started on chemotherapy (carboplatin & paclitaxel).

DISCUSSION

Malignant mixed mullerian tumors (MMMT) are also known as malignant mixed mesodermal tumors, carcinosarcomas, or sarcomatoid carcinomas.[2] It

occurs in uterus, cervix, vagina, ovaries and fallopian tubes in order of decreasing frequency.[4] MMMT of the ovary is, relatively, a rare tumor affecting the elderly population and has a poor prognosis.[2] The pathogenesis of ovarian carcinosarcoma remains a topic for discussion. The combination theory suggests that both the malignant components of the tumor originate from a common epithelial stem cell, whereas the collision theory states that they are of different origin.[5] An association between ovarian carcinosarcomas and pelvic irradiation has been suggested by Wei, et al.[6] MMMT of ovary occurs most frequently in postmenopausal women of low parity and often present with advanced disease at diagnosis.[1] Ovarian cancers are difficult to diagnose in early stage as most of them are either asymptomatic or present with vague generalized symptoms. Clinical and radiological findings of ovarian cancer are a major concern about diagnostic challenges. Histopathology, in such cases, plays an important role for better management of patient.[4] Histologically it is biphasic tumor with carcinomatous (epithelial) and sarcomatous (stromal) elements.[4] The carcinomatous component may be of serous, endometrioid, clear cell, or squamous types.[6] The malignant mesenchymal component can be homologous or heterologous. In our case report the sarcomatous component was homologous. It has been suggested that heterologous tumors have a worse prognosis.[2] Carcinomatous portion predominates in the metastatic sites and thus determines the clinical course of advanced carcinosarcoma.[4] As in our case where ascitic fluid cytology was positive for adenocarcinomatous deposits. Athavale R stated that tumors with stromal predominance and serous epithelial component have worse prognosis.[6] The presentation of the tumor is indistinguishable from epithelial ovarian cancer. Early diagnosis is very difficult because of the rarity and insidious onset.[4] The diagnostic difficulties arise when it has to be differentiated from immature teratoma and Heterologous Sertoli-Ledyig cell tumors with islands of cartilage or rhabdomyoblasts.[6] The most important prognostic factor is the stage of the disease. Therefore, it is of utmost importance to diagnose the cancer at earlier stages.[1] The main stay of management for carcinosarcoma remains cytoreductive surgery followed by chemotherapy. It is usually directed against the carcinomatous component rather than the sarcomatous component.[2] Though there is no established consensus guideline on the optimal adjuvant chemotherapeutic regimen, review of literature supports the use of platinum containing regimens with a response rate of 68% in comparison with 23% response rate in the non-platinum containing regimens.[4] The role of therapeutic radiotherapy is not established. In the present case report, the patient received 6 cycles of adjuvant chemotherapy with cisplatin and paclitaxel and patient presented with metastatic disease after stopping of chemotherapy. Clinical trials to establish the role of chemotherapy and radiotherapy are necessary, but may be difficult due to the rarity of the disease. The overall median survival is 8.2–8.7 months.[2] Due to limited reports in the literature, the prognostic factors can't be defined. Study conducted by the Gynecologic Oncology Group have found that the predictive factors for better survival were early diagnosis, presence of unilateral ovarian tumor, no pelvic lymph node metastasis, metastatic deposits less than 2 cms, omentectomy, no gross residual implants after surgery, platinum treatment, cisplatin and ifosfamide regimen.[4] Due to rarity of disease, current data in the literature is still limited to small case series and case reports. Large multi-institutional controlled trials should be required.

To conclude, MMMT are rare and aggressive tumor of ovary. It should always keep in mind as a differential diagnosis in ovarian mass and should be differentiated from mixed germ cell tumor.

ACKNOWLEDGEMENT

All the authors have contributed to concept, literature search, data acquisition, data analysis, manuscript, editing and review. There was no prior abstract/poster presentation and publications related to this topic.

FUNDING

There was no source of funding for our research.

CONFLICT OF INTEREST

We declare that there are no conflicts of interest amongst the authors.

ETHICAL APPROVAL

Not applicable as it is a case report

REFERENCES

Volume 2, Issue 6; November-December 2019; Page No.341-343

1. Ucar MG, Cakır T, Ilhan TT, Pınarkarabagli, Celik C. Primary Ovarian Malignant Mixed Mullerian Tumour: A Case Report and Brief Review of Literature. J Clin Diag Res. 2016;10(3):QD04-6
2. Charusheela RG, Meenal MP, Sulaxmi JK, Kumar H, Pradhan MP. Malignant Mixed Mullerian Tumor of the Ovary. J Obst Gynecol India. 2014; 64:S62–4.
3. Shah PA, Singh VS, Roplekar PM, Sudhamani S, Bhalekar S. Malignant mixed Mullerian tumor: A rare case report. Arch Med Health Sci. 2016;4:105-8.
4. Pushpagiri N, Dinakaran S, Chidambaram A, Pari P. Carcinosarcoma of ovary - a rare case report and literature overview. Int J Adv Med. 2016; 3:440-2.
5. Brown E, Stewart M, Rye T, Al-Nafussi A, Williams AR, Bradburn M, et al. Carcinosarcoma of the ovary: 19 years of prospective data from a single center. Cancer. 2004;100:2148-53.
6. Dasgupta S, Bose D, Bhattacharyya NK, Biswas PK. Carcinosarcoma of ovary with its various immunohistochemical expression: Report of a rare case. J Can Res Ther. 2015;11:1022.

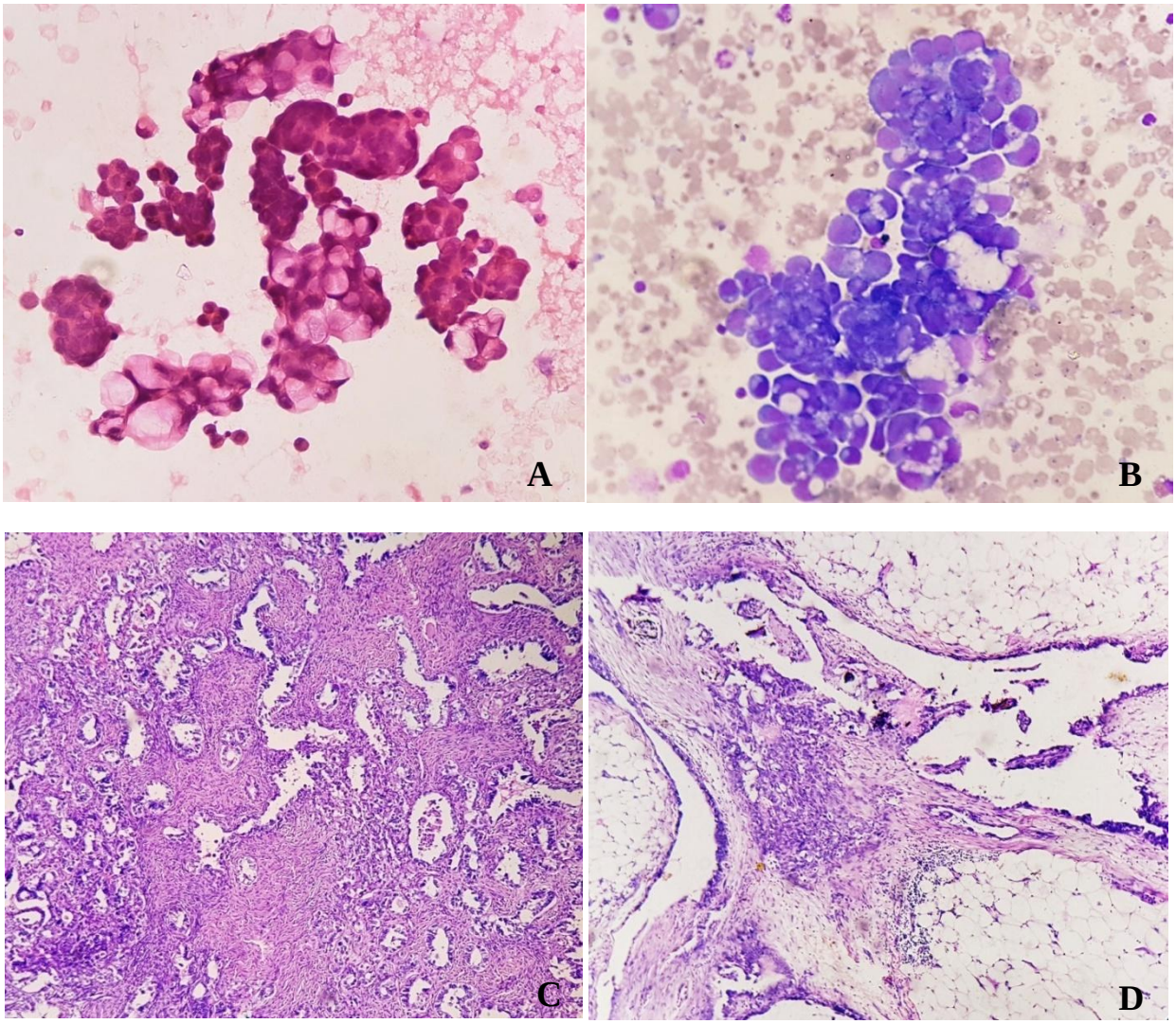

FIGURE 1: A, B: Metastatic deposits of MMMT of ovary in ascitic fluid (Cytospin : Leishaman, PAP; 400x); C : MMMT of ovary showing both carcinomatous and sarcomatous component (H & E, 100X); D : Omental deposits of MMMT of ovary (H & E, 100X)

Volume 2, Issue 6; November-December 2019; Page No.341-343