Primary Fallopian Tube Carcinosarcoma: A Rare Case Report

Eliza Shrestha[1], Kumar Bahadur Bista[1], Radhika Kunwar[2], Jasma Mally[1], Trishala Basi[1], Hari Rana Bhat[3]

[1]Department of Gynecologic oncology, Bhaktapur Cancer Hospital, Bhaktapur, Nepal.
[2]Department of Obstetrics and Gynaecology, Paropakar Maternity and Women's Hospital, Thapathali, Kathmandu, Nepal.
[3]Department of Radiology center, Dr Manavendra Upadhaya imaging center, Rabi Path, Bhairahawa, Nepal.

Abstract
The carcinomasarcoma of Fallopian tube is a rare gynecologic tumor. Fewer than 100 cases are reported in the literature. We present the case of a 51-years-old with irregular per vaginal bleeding since 4 months. Magnetic resonance imaging (MRI) revealed a solid, lobulated left ovarian mass measuring 6.9 × 4.9 × 4.4 cm, with a dilated and tortuous fallopian tube measuring 1.6 cm in diameter. Her CA-125 level was 217 U/mL. Surgical staging included total abdominal hysterectomy, bilateral salpingo-oophorectomy, bilateral pelvic lymph node dissection, and infracolic omentectomy. Histopathology confirmed carcinosarcoma of the left fallopian tube with ovarian surface involvement. She subsequently received three cycles of carboplatin (500 mg) and paclitaxel (285 mg). At 6 months' follow-up, tumor markers and imaging remained normal with no evidence of recurrence. Given the rarity of this condition, case reporting with follow-up details adds valuable insight into diagnostic and treatment efficacy.

Keywords: Carcinosarcoma; fallopian tube; surgical staging.

Introduction
Carcinosarcoma of the fallopian tube is an extremely rare malignancy with fewer than 100 cases reported in the literature. It accounts for 0.14-1.8% of all genital malignancies.[1, 2] Usually fallopian tube carcinosarcoma develop in the fifth to sixth decade in postmenopausal women, and the preoperative non-specific features and mult [Grab your reader's attention with a great quote from the document or use this space to emphasize a key point. To place this text box anywhere on the page, just drag it.] Carcinosarcoma of the fallopian tube is an extremely rare malignancy with fewer than 100 cases reported in the literature. It accounts for 0.14-1.8% of all genital malignancies.[1]-[2] Usually fallopian tube carcinosarcoma develop in the fifth to sixth decade in postmenopausal women, and the preoperative non-specific features and multiple similarities to hydrosalpinx, ovarian malignancies or tuboovarian abscess lead in most cases to a misdiagnosis.[3] Due to all the mentioned elements, a diagnosis of certainty is extremely difficult to confirm, which often is verified only by the final histology result.[4] We report a rare case of carcinosarcoma arising from the left fallopian tube.

Case Report
A 51-year-old multigravida presented to the outpatient department (OPD) reporting irregular per vaginal bleeding since 4 months. She denied any changes in bowel or urinary function, appetite, weight, or night sweats. She reported regular monthly menses before 4 month and denied any pertinent medical, surgical, or family history. On bimanual examination cystic mass felt in left adnexa.

Ultrasound showed (6×5) cm bulky left ovary with hemorrhagic component, uterus and another ovary was normal. The findings were corroborated with MRI which showed a lobulated left ovarian mass measuring (6×4.9×4.4) cm (Figure 1). The lesion is predominantly solid with minimal cystic area, heterogenous enhancement in post contrast images, restriction of diffusion is seen. Left fallopian tube is dilated and tortuous measuring 1.6cm in diameter.

Correspondence: Eliza Shrestha, Department of Gynecologic onchology, Bhaktapur Cancer Hospital, Bhaktapur, Nepal.
E-mail: elizashrestha@hotmail.com, Phone number: 9841268816

Fluid level is seen within. No enhancing solid component seen. MRI was suggestive of diffuse endometrial hyperplasia with likely solid ovarian tumor (thecoma/fibroma) and left hydrosalpinx. Endometrial biopsy done and histopathology examination (HPE) shows disordered proliferative endometrium with superimposed secretory changes.

Tumor markers were cancer antigen 125 (CA-125) was 217 U/mL, carbohydrate antigen 19-9 (CA 19-9) 5.92 U/mL, CEA 2.76 were reviewed. The decision was done to attempt total abdominal hysterectomy with bilateral salphingo- Oophorectomy, bilateral pelvic lymph node dissection and infracolic omentectomy. Intraoperative findings was Uterus (7×4×3)cm, Left fallopian tube dilated, and mass at the fimbrial end measure (3×3)cm. Left ovary (3×3) cm, right tube and ovary look normal. Final HPE revealed carcinosarcoma of left fallopian with left ovarian surface involvement and left fallopian tube surface involvement. The histological section shows epithelial and spindle components (Figure 2 and 3). Omentum and lymph node were free of tumor. On Immunohistochemistry tumor cell was positive for epithelial membrane antigen (EMA), PAX8, WT1, P53 (mutant pattern) and ER with impression consistent with High grade serous carcinoma.

She was counseled for medical oncology for chemotherapy. Since then, she has received 3 cycles of paclitaxel 285mg and carboplatin 500mg. She is on follow up 3 monthly with normal tumor marker and normal USG abdomen and pelvis report. She is doing well without evidence of recurrence 6 months after surgery.

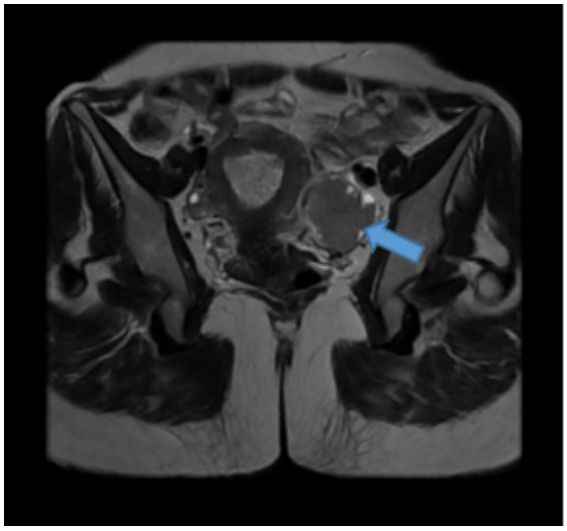

Fig. 1: T2 weighted coronal view showing left adnexal mass

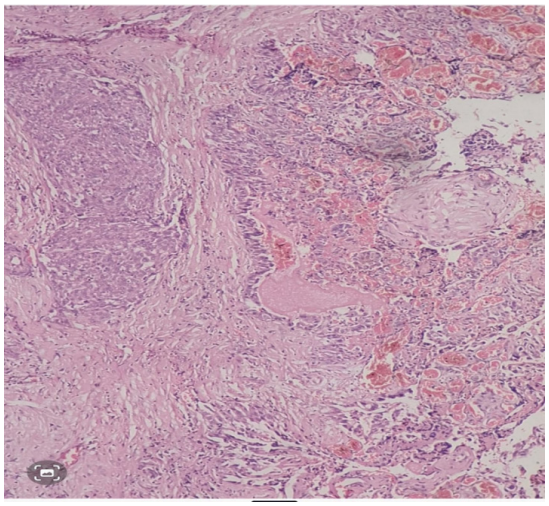

Fig. 2: Sheets of epithelial component of Carcinosarcoma arising from the lining epithelium of fallopian tube and infiltrating into wall. Magnification (X40)

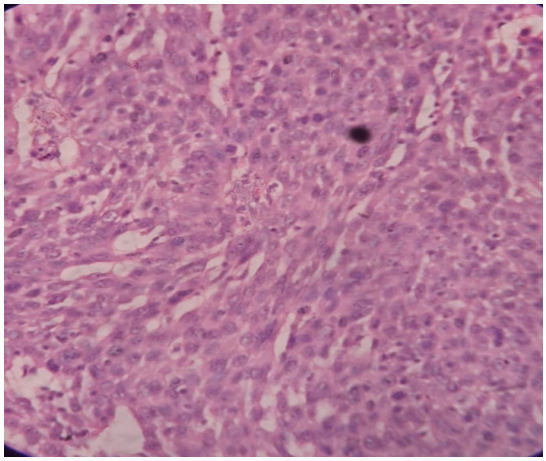

Fig. 3: Spindle component of Carcinosarcoma infiltrating into the wall. Magnification (X40)

Discussion

Carcinosarcoma of the fallopian tube is one of the extremely rare malignancy with high rates of metastasis, frequent recurrence, and a poor prognosis.[5] Usually fallopian carcinosarcoma develop in postmenopausal women, in fifth to sixth decade of life.

The clinical symptoms are nonspecific which include abdominal pain and enlargement, intermenstrual spotting and postmenopausal bleeding. The mass is often misdiagnosed as ovarian cancer or hydrosalpinx as in present case. So fallopian malignant mixed mullerian tumors (MMMT'S) should be considered as a differential diagnosis in all postmenopausal patient presenting with pelvic mass, vaginal bleeding, abdominal pain or distension and with no other significant findings.[6]also known as malignant mixed Müllerian tumor (MMMT

Carcinosarcomas (CS) also known as malignant mixed mullerian tumours (MMT) are biphasic tumours having both malignant epithelial and sarcomatous component of monoclonal origin.[7]

In our case, the tumor had epithelial and mesenchymal components, including serous carcinoma and undifferentiated sarcoma. In our case both components were positive for epithelial membrane antigen (EMA), PAX8, WT1, P53 (mutant pattern) and ER which is consistent with high grade serous carcinoma.

Concerning fallopian tube carcinosarcoma a proper surgical staging is essential to adopt a therapeutic strategy, the survival rates directly depends on this parameters. As meta-analysis demonstrated, FIGO stage I presented the best survival outcome. The prognosis of a primary fallopian tube malignancy is usually poor and depends rather on staging than on histological criteria, such as tumor type or grade.[8]

In gynaecological malignant diseases, the combination of paclitaxel and carboplatin has intensely studied and has gained popularity, due to its important activity, acceptable toxicity and ease of administration.[9] Thus, the current standard treatment for primary fallopian tube cancer is cytoreductive surgery followed by postoperative combination chemotherapy with paclitaxel and carboplatin.[10] To evaluate for recurrence of fallopian tube cancer follow-up with PET/CT imaging, in combination with CA-125 and physical examination may be superior to CT alone, which may also prevent the need for invasive surgical assessment.[11]computed tomography (CT)

Conclusion

Proper identification and reporting of rare malignancies, such as this fallopian tube carcinosarcoma, with treatment and follow up, provide oncologists with the necessary information to advance treatment.

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