

Bilateral Primary Adenocarcinoma of Fallopian Tube: A Case Report

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Abstract

Primary fallopian tube carcinoma (PFTC) is a rare gynecological malignancy. Historically, the first case of PFTC was described by Renaud in 1847. The majority of PFTC are papillary serous adenocarcinoma. Histologically and clinically these tumors resemble malignant epithelial ovarian tumors. It usually arises in old women with a wide range of age with the mean age being about 52.7 years. Pre-operative diagnosis is usually not established in most of the cases. The tumor is usually unilateral and only one in five cases show bilateral tubal involvement. We hereby report a case of bilateral primary adenocarcinoma of the fallopian tube in a 51-year-old woman. This case is being reported owing to its rarity.

Key words: Chemotherapy, Dysfunctional uterine bleeding, Malignancy, Metastasis, Papillary adenocarcinoma, Peritoneal, Salpingo-oophorectomy

INTRODUCTION

Primary carcinoma of the fallopian tube is a rare gynecological malignancy accounts for <2% of all gynecological cancers.^{1,2} The pre-operative diagnosis of primary fallopian tube carcinoma (PFTC) is very difficult, especially in earlier stages, as it is not routinely suspected.³ Most patients are peri-post menopausal. The tumor is usually unilateral and only 20% of the cases show bilateral tubal involvement. The fallopian tubes are frequently involved secondarily from other primary sites, most often the ovaries, endometrium, gastrointestinal tract, or breast.

CASE REPORT

The 51-year-old female gravida-2, para-2, who attained menopause 4 years earlier, presented with complaints of excessive white vaginal discharge and a backache since 5 months and profuse vaginal bleeding from 3 weeks. On general examination, the patient was cachectic weighing

46 kg. There was mild pallor and no lymphadenopathy. An abdominal examination showed no ascites/organomegaly/any mass. Per speculum examination showed the cervix hyperemic and drawn-up. Cervical OS showed a brownish odorless discharge. On vaginal examination, the exact size of uterus could not be appreciated, and all fornices were free. Laboratory work-up revealed mild anemia with rest routine investigations within normal limits. Trans-abdominal USG showed normal uterus with size measuring 8.5 cm × 5 cm × 3.5 cm with normal endometrium. There is a small to moderate size balloon-shaped, elongated, well-defined, solid density lesion in the right adnexal region measuring 7.5 cm × 3.5 cm × 2 cm. Right ovary could not be separately identified. Left ovary appears normal. No localized or free pelvic/peritoneal collection was seen. Pre-operative endometrial curettage revealed dysfunctional uterine bleeding. The patient underwent trans-abdominal hysterectomy with bilateral salpingo-oophorectomy. Total hysterectomy specimen already cut open measuring 8.5 cm × 5.2 cm × 3.8 cm with both side-tube and ovaries was received (Figure 1). Endometrium was 0.2 cm and myometrium was 3.0 cm thick. Right-sided tubal mass measures 7.5 cm × 3.5 cm × 2 cm. On cut, solid gray-white with areas of hemorrhage and necrosis was noted. The right ovary measures 3 cm × 2 cm, on cut, it was solid gray-white while left-sided tube measures 5 cm × 1.5 cm × 1.0 cm, and on cut, it was solid gray-white with areas of necrosis. Separate left ovary measuring 3 cm × 2 cm already

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punctured. On cut, cystic with the solid area was seen. Under light microscopy, both fallopian tubes showed features of papillary well-differentiated adenocarcinoma as shown in Figure 2(a), in low-power view & in Figure 2(b) whereas right ovary was unremarkable and the left ovary showed simple serous cyst. The patient was advised post-operatively to have a course of combined adjuvant chemotherapy. The patient received six cycles of chemotherapy and was on regular follow-up and well clinically. However, the patient denied for second-look laprotomy.

DISCUSSION

The carcinoma of the fallopian tube is the least common of all gynecological malignancies and accounts for approximately 0.14-1.8% of all female genital tract malignancies. The annual incidence is about 3.6 per million women per year.⁴ The primary carcinoma of the fallopian tube is rarer, accounting for about 1% of primary genital tract malignancies.⁵ The establishment of the pre-operative diagnosis of tubal carcinoma is rare.² Because of its rarity and the non-specific symptoms, the primary diagnosis is rarely made and it is usually misdiagnosed as ovarian carcinoma. A correct diagnosis of PFTC was made pre-operatively in only 4.6% cases in the series of Alvarado-Cabrero *et al.*¹ It usually arises in old woman with a wide range of age and a mean of 52.7 years.⁶ 90% of tubal carcinoma have symptoms such as prominent watery vaginal discharge, i.e., hydrops tubac profluens, irregular vaginal bleeding, pelvic mass, and pain.⁷ The Latzko's classical triad of symptoms and signs associated with fallopian tube cancer is vaginal discharge, pelvic pain, and mass, which is noted in fewer than 15% of patients.⁸ Atypical vaginal bleeding is the most common form of presentation.⁹ Symptom of pain and vaginal discharge are more characteristic of tubal inflammation, which is also commonly present. There are no known predisposing factors of PFTC, but it has been found to be associated with nulliparity and infertility, as well as with a pelvic inflammatory disease. Primary carcinoma of the fallopian tube should be included in the differential diagnosis, especially in patients with clinical symptoms of vaginal discharge or abnormal genital bleeding with negative curettage.⁴ CA-125 is also a useful marker for diagnosis and follow-up. Grossly, the affected tube resembles a distorted sausage and tends to feel firm. Cut-surface shows a solid or papillary tumor filling the lumen. Microscopic appearance is usually that of an invasive papillary adenocarcinoma of varying degree of differentiation. The close proximity of the fallopian tubes to the ovaries and the uterus sometimes makes it difficult to identify a true primary carcinoma. The criteria for diagnosis of primary tubal carcinoma

should be rigid because the frequency of this tumor is only a tenth of that of direct tubal extensions by uterine or ovarian carcinoma. The diagnostic criteria for PFTC is that tumor should clearly arise from endosalpinx, histologically represents epithelium of tubal mucosa, transition from benign to malignant epithelium should be seen, and ovary and endometrium are normal or have tumor smaller than the one in the tube. By convention, carcinoma extensively involving the endometrium and ovary associated with the tube is regarded as endometrial and ovarian carcinoma respectively. The management of fallopian tube carcinoma is principally the same as that for ovarian cancer. The surgery is the mainstay of the treatment followed by adjuvant combination chemotherapy, that similar to that used for ovarian carcinoma. Taxol and cisplatin combination chemotherapy offers the possibility of long-term control as this combination is today's drug of choice. The prognosis of tubal carcinoma depends more on staging than histological grading. Fallopian tube cancer is staged according to FIGO.¹⁰ The stage of the disease at the time of diagnosis is the most important factor affecting the prognosis. Metastasis to the para-aortic lymph nodes has been documented in 33% of the patients with all stages of disease. More than 50% women present with Stage I or Stage II disease, 40% with Stage

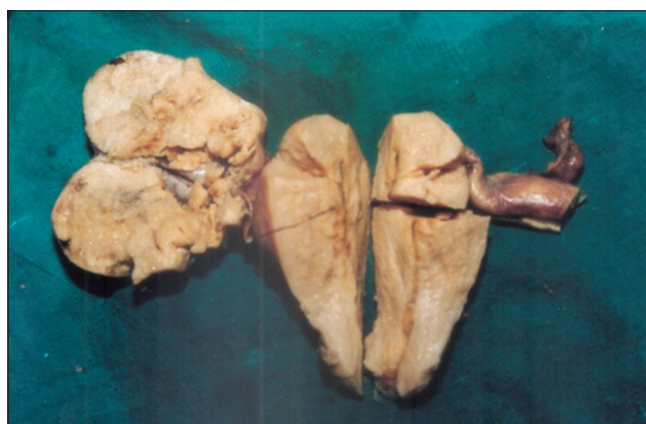


Figure 1: Gross-specimen of uterus, cervix with both tubes and ovaries: Already cut open dissected right fallopian tube showing grayish white, friable tumor mass and with areas of Hemorrhage and necrosis which is pushing ovary (Rt). Left fallopian tube is swollen at fimbrial end

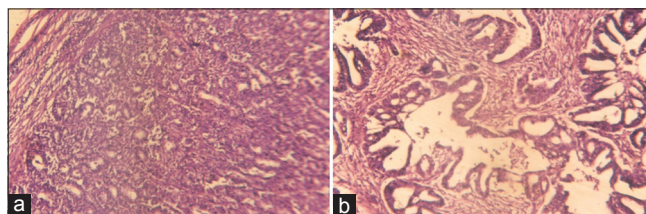


Figure 2: (a) Tumor cells arranged in solid pattern with few areas showing small papillae (H and E x100), (b) tumor cells arranged in papillary pattern with fibrovascular core (H and E x400)

III and 5-10% with Stage IV disease. A somewhat lower incidence of the advance disease is these women than in those with epithelial ovarian carcinoma, which may be because of earlier occurrence of symptoms, vaginal bleeding or discharge.¹¹ The survival rate of the tumor studied by Semrad *et al.*¹² shows the 5-year survival rate of about 68-76% disease for Stage I, 27-42% for Stage II and 0-6% for Stage III and IV disease.

CONCLUSION

Primary carcinoma of the fallopian tube is rare, and its bilateral occurrence is even more rare. PFTC should be taken into account for making the differential diagnosis of a suspicious adrenal mass or tubo-ovarian mass/abscess in all peri- and post-menopausal women as its diagnosis at an early stage provides better prognosis and longer survival.

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