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Case Report

Bilateral serous papillary adenocarcinoma of fallopian tube: a case report

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ABSTRACT

Primary carcinoma of fallopian tube is rare and accounts for only 0.7-1.5% of all gynecological malignancies. Majority of the patients are postmenopausal with mean age of 61 years. Study present a case of 48-year-old lady, who underwent total abdominal hysterectomy with bilateral salpingo oophorectomy for a clinical diagnosis of fibroid uterus. Histopathological examination revealed, in addition to intramural fibroids, bilateral serous papillary adenocarcinoma of fallopian tube. We present this case due to its rarity.

Keywords: Bilateral, Fallopian tube, Serous papillary adenocarcinoma

INTRODUCTION

Primary carcinoma of fallopian tube is considered rare and accounts for only 0.7-1.5% of all gynecologic malignancies, with an incidence ranging from 0.3-0.5 per 100000 women. Patients have a wide age range (25-95 years), but majority are post-menopausal with a mean age of 61 years. Primary fallopian tube carcinoma resembles clinically and histologically epithelial ovarian tumours. Majority of tubal carcinomas are unilateral, with bilateralism seen in only 2%-13% of cases.[1]

Clinical manifestations are non-specific and variable and include, serosanguinous vaginal discharge, colicky abdominal pain, abdominal or pelvic mass. However, the diagnosis of primary fallopian tube carcinoma is considered rarely pre-operatively and is often appreciated by the pathologist.[2] Carcinomas of various surface epithelial type encountered in ovary have been reported in fallopian tube. But over half of tubal carcinomas are serous.[1] Stage and residual tumour are the most important prognostic factors determining the outcome.[3]

CASE REPORT

A 48-year-old female presented with abdominal mass of 3 months duration. It was gradually increasing in size, and was associated with low back ache and increased menstrual flow with passage of clots. She also had discharge per vaginum, but no mass per vaginum, loss of appetite or loss of weight. There was no significant family history, menstrual history, past medical or surgical history except for a recently detected hypertension for which she was on medication. On examination, she had an abdominal mass of about 24 weeks size. Per vaginal examination revealed an irregularly enlarged uterus of about 24 weeks size. All other systems were within normal limits. With a clinical diagnosis of fibroid uterus, which was supported by the ultra sound scan findings, they went ahead with total abdominal hysterectomy with bilateral salpingo oophorectomy and the specimen was sent for histopathological examination. On gross examination uterus showed multiple fibroids, including sub serous and intramural fibroids. Both fallopian tubes were dilated and showed grey white granular area on cut section. On microscopy, section from both tubes showed

a neoplasm composed of cells arranged in papillary pattern, cords and singly. Individual cells were highly pleomorphic with moderate amount of eosinophilic cytoplasm and pleomorphic vesicular nucleus with coarse clumped chromatin and a few showing prominent nucleoli. Mitotic figures (2-3/high power field) and areas of necrosis were noted. With this a diagnosis of bilateral serous papillary adenocarcinoma fallopian tube was given. The patient was referred for post-operative chemotherapy.

Lab findings

- Routine blood investigations were as follows
- Haemoglobin - 10.8gm/dl.,
- Total white blood cell count - 8500/mm3 with predominantly neutrophils.
- Platelet count 2 lakhs.
- All other investigations were within normal limits.

USG abdomen and pelvis

- Enlarged uterus measuring14.8x12.2x10.2 cm
- Multiple fibroids,largest in subserous location measuring 9.5x8x3cm
- Endometrial thickness-7mm
- Both ovaries not visualised clearly
- No adnexal mass.

Study received irregularly enlarged uterus with attached bilateral adnexa and separate cervix. Uterus measured 18.5x12.5x13 cm. Cut section showed multiple intramural and sub serous fibroids. Right tube measured 10 cm in length and was dilated over an area 4.5x2.5x2 cm. cut section showed a grey white granular area measuring 2x2 cm. left tube measured 7.5 cm and was dilated over an area 4.5x3x2 cm. cut section showed a grey white granular area measuring 1.5x1.5 cm. Both ovaries showed corpus luteum and cervix showed nabothian cyst.

Figure 1: Gross photograph showing irregularly enlarged uterus with large sub serous fibroid.

Figure 2: Cut section of right tube showing grey white granular growth.

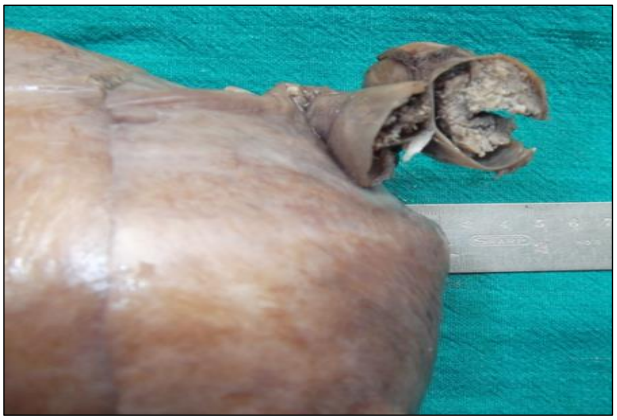

Figure 3: Cut section of left tube showing grey white granular growth in the lumen.

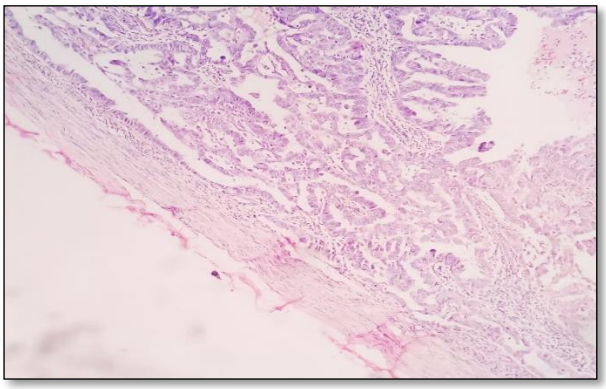

Figure 4: Photomicrographs showing neoplasm arising from lining epithelium of fallopian tube.

Histologically, section from both tubes showed a neoplasm arising from the lining epithelium composed of cells arranged in papillary pattern, cords and singly. Individual cells were highly pleomorphic with moderate amount of eosinophilic cytoplasm and pleomorphic vesicular nucleus with coarse clumped chromatin and a few showing prominent nucleoli. Mitotic figures (2-3/high power field) and areas of necrosis were noted.

Serosa of both tubes were free of neoplasm. Endometrium, both ovaries and cervix showed normal histology.

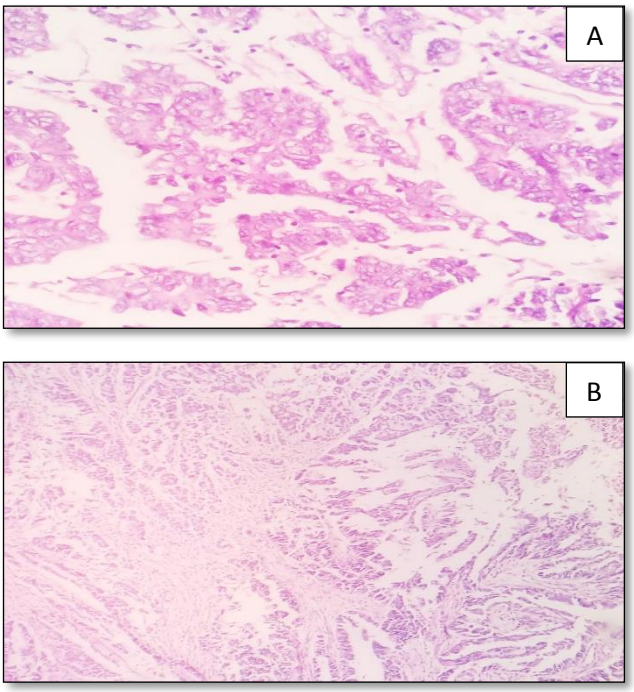

Figure 5: Photomicrographs of section from right fallopian; (A) Tube low power; (B) High power.

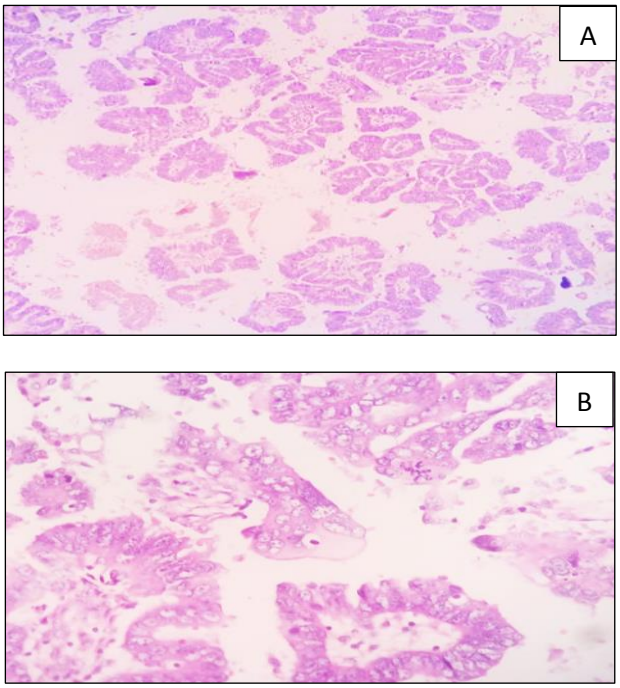

Figure 6: Photomicrographs of section from left fallopian; (A) Tube low power; (B) High power.

DISCUSSION

Primary carcinoma of fallopian tube is rare accounting for about 0.7-1.5% of all gynecologic malignancies. Most of the patients are post-menopausal though it can occur in a wide age range.[1]

It resembles epithelial ovarian carcinomas clinically and histologically, and so a pre-operative diagnosis is made only rarely. Usually, it is unilateral, with bilaterality seen in only 2-13% of cases. The classic symptoms of hydrops tube profluens-intermittent colicky abdominal pain, relieved by profuse watery vaginal discharge-considered pathognomonic of fallopian tube carcinoma is seen infrequently. Most common symptoms are abnormal vaginal bleeding or discharge, followed by abdominal pain, a palpable pelvic and/or abdominal mass. Primary fallopian tube carcinoma must be considered in differential diagnosis when vaginal bleeding persists after a negative curettage. In a small subset of cases,tubal carcinoma is detected incidentally when surgery is performed for some other causes as in our case.[1,4,5]

Tubal carcinomas appear as fusiform swelling similar to hydrosalpinx or hematosalpinx. Ampulla is the most common site, though it can originate in fimbrial end. About half of tubal carcinomas are serous, one-fourth are endometrioid, one fifth are transitional or undifferentiated, and the rest are of other rare epithelial cell tumours.[3]

Diagnostic criteria for primary fallopian tube carcinoma was first established by Hu et al in 1950 and was later modified by Sedlis in 1978 and it is as follows.[6]

- The tumour should arise from the endosalpinx
- The histological pattern reproduces the epithelium of fallopian tube mucosa
- Transition from benign to malignant epithelium is found
- The ovaries are either normal or with smaller tumour than the tube.[6]

All the above-mentioned criteria were fulfilled by the tumour detected in our case and hence a diagnosis of primary fallopian tube carcinoma was given.

CA-125 is a useful marker for diagnosis, assessment of response to treatment, and detection of tumour recurrence during follow up with some limitations. Imaging techniques do not safely rule out the presence of malignancy. The lesions can have the appearance of a small, solid, lobulated mass on CT scan or MRI. Cervico vaginal smear is an inadequate tool for diagnosis of primary fallopian tube carcinoma. Thus, the diagnosis of primary fallopian tube carcinoma depends on histopathological examination.[2,3]

The immunopheno type of fallopian tube adenocarcinoma is similar to that of ovarian carcinoma of same histologic type. Primary tubal carcinomas are usually CK 7 positive and CK 20 negative, and they show diffuse strong nuclear positivity for PAX- 8. Serous carcinoma of fallopian tube shows diffuse strong nuclear positivity for WT-1.[3]

Tubal carcinoma spreads in much the same manner as epithelial ovarian cancer, principally by trans coelomic spread, and also by contiguous invasion, trans luminal migration and hematogenous dissemination. Patients with primary fallopian tube carcinomas are seen to have a higher rate of retroperitoneal and distant metastasis than those with epithelial ovarian cancer according to data from literature. Penetration of serosa is an ominous sign associated with poor prognosis.[2] But in our case, serosa was free of neoplasm. There is no uniform staging system because of its rarity.[7]

Surgery, with or without adjuvant combination chemotherapy is the recommended treatment options, depending on the stage of the disease.[2] In a study of 36 cases of primary fallopian tube carcinoma, Ying Ma and Wei Duan found that the early mortality rate (stage I and II) was 11.8% and advanced mortality rate (stage III) was 42.1%. The overall survival rates for 3 years and 5 years were 80.7% and 65.4% respectively.[8]

CONCLUSION

Papillary serous adenocarcinoma of fallopian tube is a challenge to both clinician and pathologist, as most of the tumours may be silent, and similar morphological picture can be seen in carcinomas of ovary and uterus which may extend into fallopian tube. Careful examination and sampling of the specimen especially the fimbrial end is very essential in detecting primary fallopian tube carcinoma. This should be done, not only in suspected cases, but in all cases where fallopian tube is received as a part of surgery for some other reasons, because primary fallopian tube carcinoma is sometimes diagnosed incidentally, as in our case.

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