

Primary Fallopian Tube Carcinoma-A Case Report

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Abstract

Primary Fallopian Tube Carcinoma [PFTC] accounts for 1-2 percent of all gynecological malignancies. Preoperative diagnosis of PFTC is difficult because of vague and non-specific presentation, and it is the mostly intra-operative or pathological diagnosis. PFTC histologically and clinically resembles ovarian epithelial carcinoma, and thus the evaluation and treatment are also necessarily the same. We report a case of PFTC diagnosed postoperatively

Keywords

PFTC, Serous carcinoma, Histopathological diagnosis

I. Introduction

PFTC is a rare tumor of the female genital tract whose incidence is raising during the last decades and varies between 2.9 to 5.7/10,00,000. It was first described by Renaud in 1847. The first case was reported by Orthmann in 1888. The tumor is often an adenocarcinoma though choriocarcinoma may develop in ectopic tubal pregnancy or tubal mole. Here we report a case of PFTC in a premenopausal woman diagnosed by histopathology.

II. Case Report

A 42-year-old premenopausal woman, a P1L1, presented at Preethashree Hospital, Tirumangalam, in 2017, with complaints of watery vaginal discharge and dull abdominal pain for two months. She is a known hypothyroid on Tablet Thyroxine 100 microgram once daily. Her personal and family history was not relevant. Marital history: she lives separate from her husband due to marital disharmony.

Menstrual history: She has regular menstrual periods.

LMP: 10 days back.

Obstetric history: She is a P1L1; Delivery was spontaneous vaginal. On physical examination, abdomen appeared normal. On palpation, no tenderness elicited. Speculum examination revealed mild vaginitis. Pelvic examination revealed an anteverted bulky uterus with full-ness in the left fornix. There

was no tenderness in left fornix or on movement of cervix.

Investigations:

Her complete blood counts, renal and liver function tests were normal. Serum HBsAg, HIV1&2 were negative. Blood sugar and urine examination were normal. Chest Xray was normal. Ultrasound revealed bulky anteverted uterus with three intramural and subserous myomas. Both ovaries were normal. Left adnexa shows a mass suggestive of Tubo-ovarian inflammatory mass. CT abdomen with MRI screening revealed uterus with a subserosal fibroid at fundus posteriorly. Both ovaries show normal morphology. An elongated enhancing lesion at left adnexa, adjacent and anterior to left ovary, suggestive of fallopian tubal mass. Her CA-125 level was 34U/ml. [Normal up to 35U/ml]. Liquid-based cervical cytology was negative for malignancy.

With a provisional diagnosis of Tubo-ovarian inflammatory mass, total abdominal hysterectomy with bilateral salpingo-oophorectomy was proceeded. Intraoperative picture was like inflammatory mass. To rule out malignancy, omentectomy and peritoneal fluid wash cytology were done.

The pathological examination of the specimen, on gross examination showed two intramural fibroids. Both ovaries were normal. The right tube was normal. The left tube cut section showed dilated lumen filled with friable grey white tumor.

Microscopy findings of left tubal mass were suggestive of high grade papillary serous carcinoma with metastasis in left ovary. Stage: T2a-N0-M0.

Since it was a postoperative pathological diagnosis, the patient was referred to the Medical Oncology Department, Government Rajaji Hospital, Madurai, where she received six cycles of platinum-based chemotherapy and was followed up with CA-125 levels and CT abdomen and pelvis there and was found free of disease. She underwent surgery 27 months back. The patient is now alive and in good general condition and on regular follow up at Medical oncology department.

III. Discussion

PFTC is mostly adenocarcinoma. The peak incidence is between 60-64 years of age. Its occurrence in adolescence is rare and was reported by Gatto in a 16-year-old.

The etiology of this tumor is not proved; Probable associations are Infertility, chronic tubal inflammation, tubal endometriosis, tuberculous salpingitis. Mutations associated with PFTC are BRCA & TP53. Meng et al. observed the occurrence of PFTC fivefold higher in infertile than in fertile patients [1]. High parity, pregnancy, use of Oral contraceptive pills decreases the risk of PFTC significantly [2]. Our patient neither had any predisposing factors nor in the high incidence group.

Latzko's triad of symptoms and signs are prominent watery vaginal discharge [Hydrops tubae profluens], pelvic pain and pelvic mass. Forced tubal peristalsis causes colicky lower abdominal pain or tubal distension causes dull pain [3]. In our case, apart from dull abdominal pain and serous

discharge per vaginum, all other symptoms were absent.

A Pap smear is positive in 10-36 percent. Liquid-based cytology and diagnostic curettage were negative in our patient. CA125 level is a useful marker for diagnosis, assessment of tumor response to treatment and to detect recurrence. In our case CA125 levels were equivocal.

According to Hu et al. the diagnostic criteria for PFTC (which were revised later by Sedlis et al), are

- 1) The main tumor should arise from endosalpinx.
- 2) The histological pattern reproduces the epithelium of tubal mucosa.
- 3) The transition from benign to malignant should be demonstrable.
- 4) The ovaries and endometrium should be normal or contain tumor that is smaller than in the tube. Our case fits into all these criteria.

A study (published in January 2016) that mentions 'ultrasonographic features in the preoperative diagnosis of primary malignant tumors of the fallopian tube' concluded that a complex pelvic and/ or cystic mass associated with papillary projections and low resistance neovascularization are strong arguments for the diagnosis of tubal cancer [4]. MRI is a better diagnostic tool compared to CT. On T1 weighted image the tumor is hypo intense, and on T2 weighted MRI, the tumor is homogeneously hyper intense.

The staging is based on the FIGO staging system. Since our case had metastasis in ovary, it comes under stage 2A.

Total abdominal hysterectomy with Bilateral salpingo oophorectomy [TAH+BSO], omentectomy, selective para-aortic and pelvic lymphadenectomy is the treatment of choice

for PFTC. Postoperatively, platinum-based chemotherapy is useful. Since our diagnosis was postoperative pathological, CA125 was equivocal; intraoperative picture was like inflammatory mass, we did TAH+BSO with omentectomy & peritoneal wash cytology.

IV. Conclusion

For peri- and post-menopausal women-with an unusual, unexplained or persistent vaginal discharge, even in the absence of bleeding, the clinician should have a suspicion of occult tubal cancer.

Stage and residual tumor are the most important prognostic factors for outcome. Early-stage at diagnosis and optimal cytoreduction are the most significant factors in prolonging the survival of women with PFTC.

Our purpose of reporting the case is, since the incidence of PFTC is on the rising trend, a high degree of suspicion and optimal management should be considered in perimenopausal women presenting with tubal mass.

VI. References

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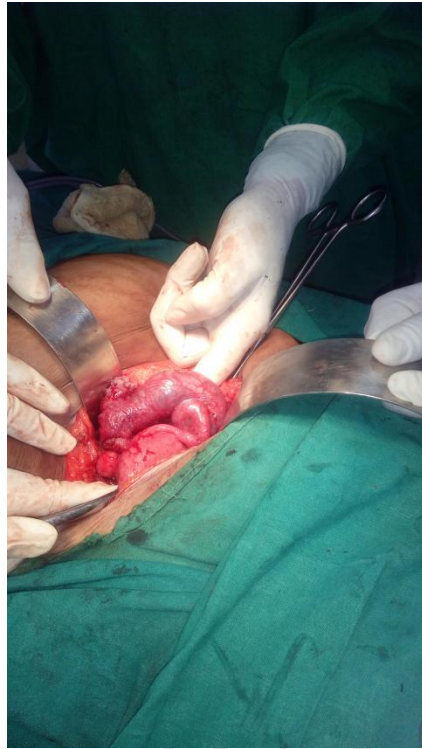


Figure 1: Intra-operative image showing left tubal mass.

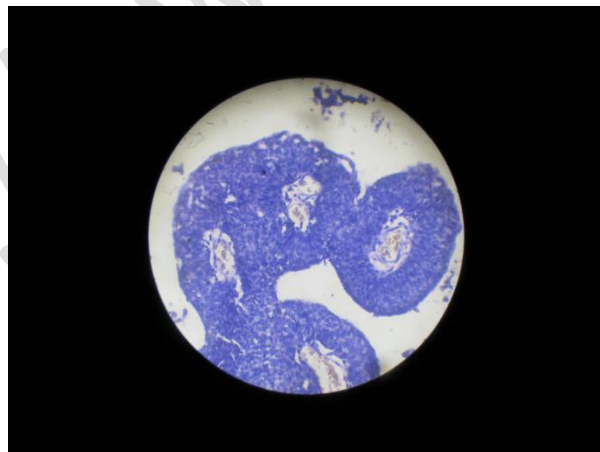


Figure 2: Immuno-Histo-Chemistry positive for Wilms Tumor1 and CytoKeratin7

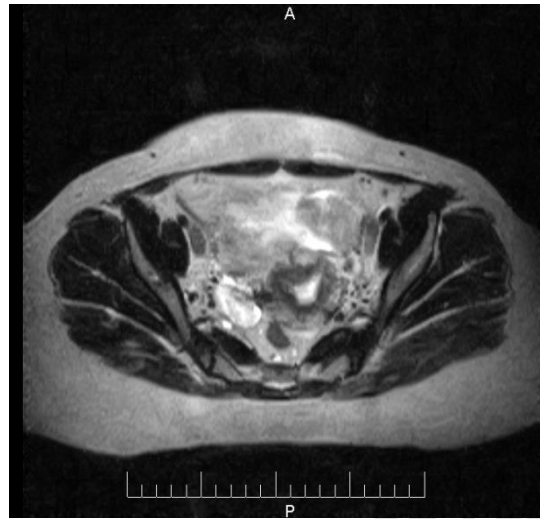


Figure 3: MRI image of the pelvis showing left tubal mass