

# PRIMARY ADENOCARCINOMA OF THE FALLOPIAN TUBE - A CASE REPORT

MANDAKINI BT, HAKEEM A, RAJASHREE P, SHAGUFTA R, PATTANKAR VL  
DEPARTMENT OF PATHOLOGY & OBSTETRICS AND GYNECOLOGY  
KHAJA BANDANAWAZ INSTITUTE OF MEDICAL SCIENCES GULBARGA

DR ABDUL HAKEEM ATTAR

C/O Abdul Azeem Attar

Shameem Masala Attar Bazar

Gulbarga - 585101

Email:attar.hakeem@gmail.com

## ABSTRACT:

Primary fallopian tube carcinoma (PFTC) is a rare tumor that histologically and clinically resembles epithelial ovarian cancer. PFTC has a worse prognosis than ovarian cancer as it is not routinely suspected and so treatment may be delayed. Here we report a rare case of PFTC which was preoperatively diagnosed as ovarian tumor.

**Key words:** Primay, Fallopian tube, Adenocarcinoma, Ovarian tumor

## INTRODUCTION:

Primary fallopian tube carcinoma (PFTC) is an uncommon tumor accounting for 0.14 to 1.8% of female genital malignancies.<sup>1,2</sup> Most of the patients are post-menopausal.<sup>3</sup> The diagnosis is usually unsuspected preoperatively.<sup>4</sup> Secondary malignant lesions of the fallopian tube usually arise from the adjacent ovary or uterus, occasionally from GIT and rarely the breast or peritoneal carcinomatosis.<sup>5</sup> It is also possible that the true incidence of PFTC has been underestimated because PFTC may have been mistakenly identified as ovarian tumor during initial surgery and /or microscopic examination by a pathologist as the histological appearances of these tumors are identical.<sup>1</sup>

## CASE PRESENTATION (CLINICAL DETAILS)

A 50 year old woman, para – 1 menopausal for 8 years, was admitted with h/o pain in the lower abdomen of 2 months duration. On examination her general condition was unremarkable. Per speculum examination revealed congested cervix. P/V examination revealed fullness in the left fornix. USG findings were – a left sided loculated cyst measuring 9.1x7.8cm? Dermoid cyst of ovary. CA 125 level was 9.80 u/ml (ref range < 35 u/ml). There was no evidence of neoplastic lesion in urinary bladder, left colon-rectum or ovary. Patient was subjected to surgery and abdominal hysterectomy with bilateral salpingoophorectomy.

## GROSS/HISTOPATHOLOGICAL FINDINGS:

Uterus was atrophic measuring 6x3x2cm & showed no neoplastic lesion. Left fallopian tube was elongated and was terminally cystically dilated measuring 6.5cm in diameter and brownish in colour. On opening the cyst brown coloured fluid was seen. Inner wall of the cyst was grey brown in colour and showed multiple small papillary growths. Rt tube and both the ovaries were unremarkable.

Histopathological study of the cyst wall and the papillary growth showed complex papillary arrangement of pleomorphic, tall columnar cells with marked nuclear pleomorphism. There were frequent mitotic figures and some solid areas. The tumor tissue showed infiltration up to serosa. Serial sections from the endometrium, cervix, other tube and both the ovaries were studied. Endometrium showed – cystic atrophy. Cervix showed – chronic cervicitis with polypoidal endocervicitis. Other tube and both the ovaries were unremarkable. As there was no evidence of tumor anywhere else, this was diagnosed as a case of primary fallopian tube carcinoma. Later the patient was referred to higher oncology centre.

## DISCUSSION:

Fallopian tube cancer was first described in 1847. Since then over 2000 cases have been reported in literature. Fallopian tube carcinoma is typically an incidental diagnosis in patients undergoing exploratory laparotomy for a presumed ovaiaian malignancy<sup>5</sup>. So was our case. The etiology of this cancer is unknown. Hormonal, reproductive and possibly genetic factors thought to increase epithelial ovarian cancer risk, might also increase PFTC risk. PFTC has been described in high risk breast ovarian cancer families with germ line BRCA-1 and BRCA-2 mutatiuons.<sup>1</sup> PFTC most frequently occurs between the fourth and sixth decades of life<sup>7</sup>.

Important Clinical features include vaginal bleeding or spotting (50% to 60%), abdominal pain – colicky or dull (30% to 49%), abdominal or pelvic mass (12% to 84%) and ascitis (15%),<sup>1</sup> although CA – 125 antigen is often not diagnostic for PFTC, > 80% of patients have elevated pretreatment CA-125 levels.<sup>1</sup> In our case CA-125 levels were within normal limits. Several authors state that cervico-vaginal smear is an inadequate diagnostic tool and no one would consider using it for the diagnosis of PFTC. Positive Pap smears have been reported in only 0% to 23% of cases.<sup>1</sup> The criteria for the diagnosis of primary fallopian tube carcinoma should be very rigid, because the frequency of this tumor is only a tenth of that of direct tubal extension by uterine or ovarian carcinoma,<sup>3</sup> the microscopic features of PFTC are generally as seen in the primary serous ovarian tumor. Serous tumors that grow primarily in to the tubal lumen may exhibit prominent papillarity, where as those that invade the wall and are high grade may have solid or alveolar pattern.<sup>4</sup> Penetration of the serosa is an ominous sign associated with a poor prognosis.<sup>1,6</sup>

#### **CONCLUSION:**

Adenocarcinoma of the fallopian tubes is rare and has a papillary architecture with tubal (papillary serous) differentiation. For adenocarcinoma to be distinguished as a primary tubal cancer versus a metastasis of ovarian or endometrial origin, the bulk of the tumor must be in the tube, involve the lumen, and arise from the mucosa. Because the tumors commonly are undiagnosed when they are confined to the tube they exhibit a poor prognosis.

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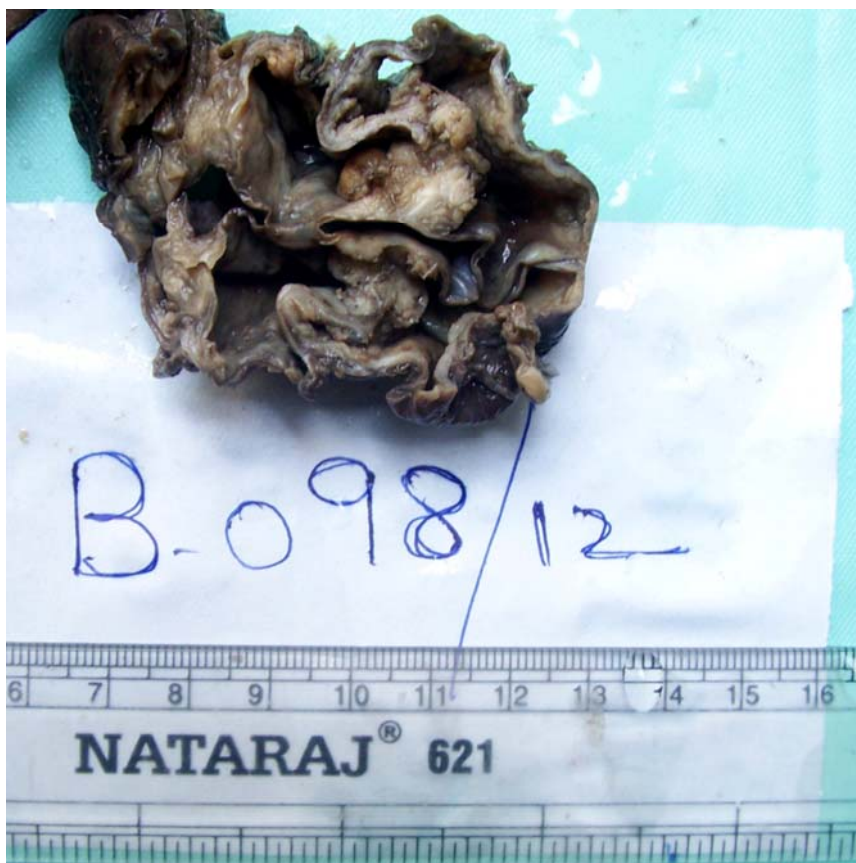
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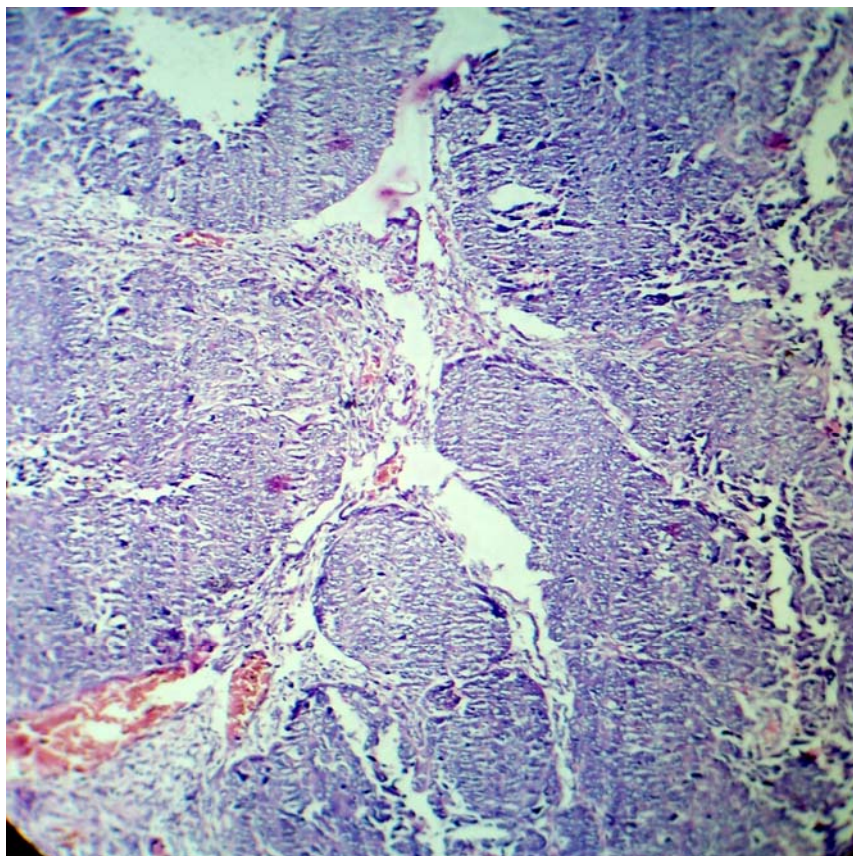
Photograph of a Hysterectomy Specimen with Bilateral Salpingo-oophorectomy.



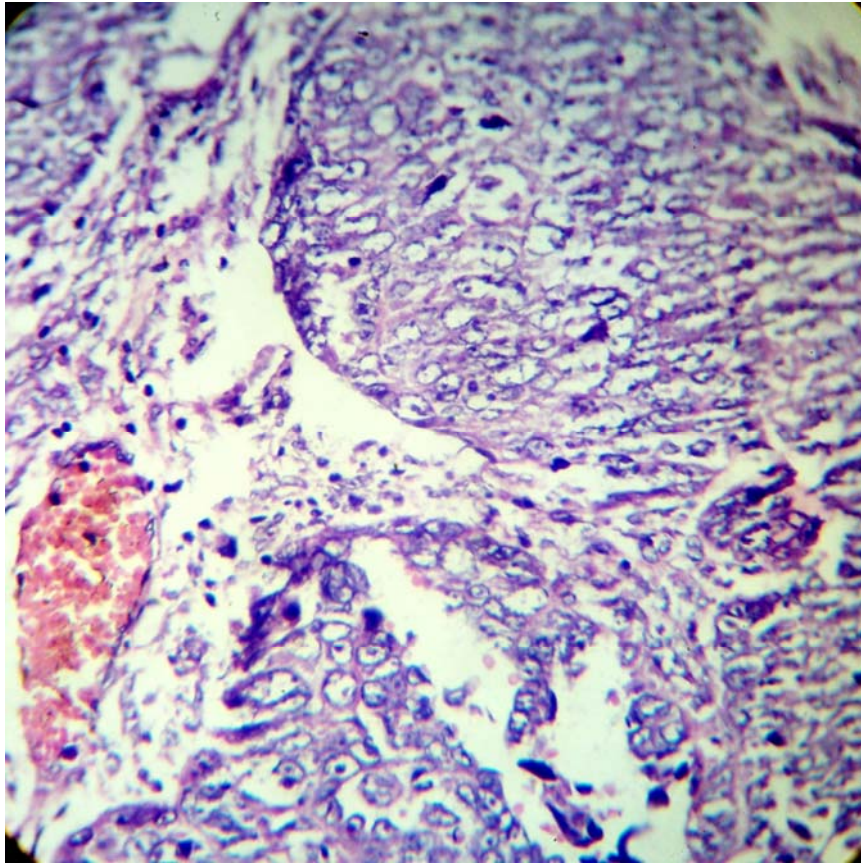
Photograph of an Atrophic uterus with elongated and terminally cystically dilated left fallopian tube.



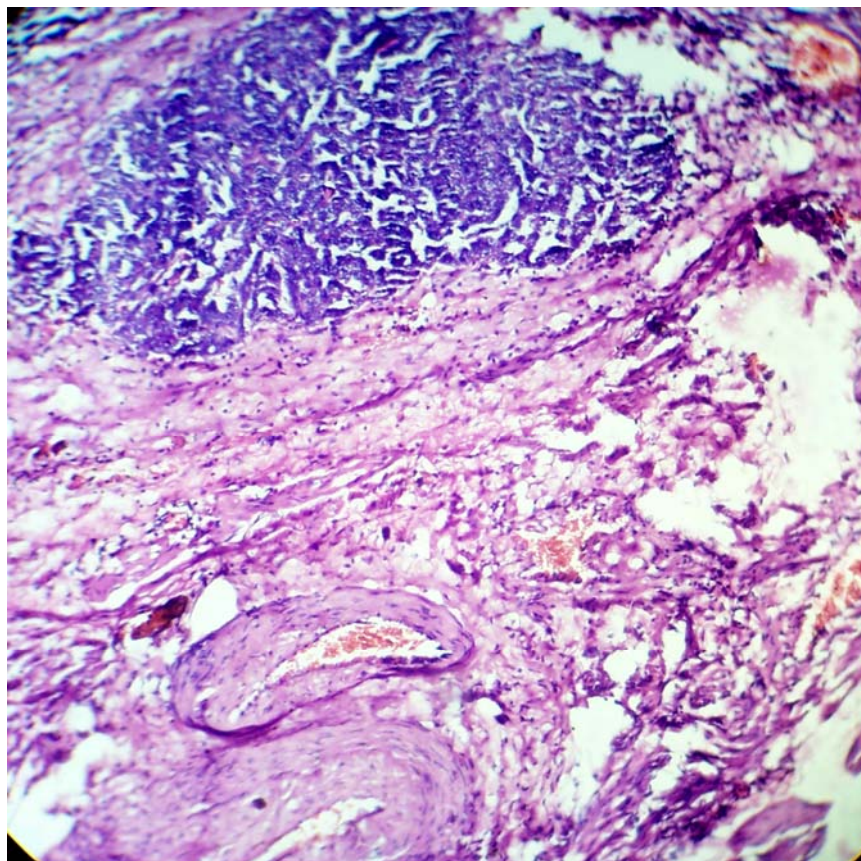
Photograph of C/S of left fallopian tube showing grey brown areas with multiple small papillary growths.



Photomicrograph of cyst wall showing complex papillary projections. (H&E,100X)



Photomicrograph showing pleomorphic tall columnar cells with marked nuclear pleomorphism and mitotic figures. (H&E,400X)



Photomicrograph of tumor tissue showing serosal invasion. (H&E,100X)