A REPORT ON RARE CASE OF CARCINOMA FALLOPIAN TUBE

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ABSTRACT: The Primary Fallopian Tube Carcinoma (PFTC) is an uncommon tumor accounting for approximately 0.14%–1.8% of female genital malignancies. PFTC is a rare tumor that clinically & histologically resembles epithelial ovarian cancer. PFTC has a worse prognosis than ovarian cancer, as it is not routinely suspected and so diagnosis & treatment may be delayed. The early clinical manifestations and a prompt investigation can often lead to a correct diagnosis at an early stage. The preoperative diagnosis is usually difficult, and most patients with PFTC undergo laparotomy with the presumed diagnosis of ovarian carcinoma according to the presence of an adnexal mass. We report here a case of PFTC at Regional Cancer Centre, IGIMS who presented as pelvic mass and was diagnosed intraoperatively.

KEYWORDS: Fallopian Tube, Fallopian Tubecarcinoma, Prognosis, Chemotherapy, Surgery, CA 125.

INTRODUCTION: Fallopian tube carcinoma is the most uncommon carcinoma of the mullerian system, accounting for 3.6 cases per million women per year [1]. This rarity has prevented prospective trials that could answer questions of optimal treatment and prognostic factors. Only through large retrospective studies significant prognostic factors for this disease have been found.

Fallopian tube adenocarcinoma carries 5 year survival rates of about 68~76% for Stage I disease, 27~42% for Stage II disease and 0~6% for Stage III and IV disease (2). So it is very important to diagnose these neoplasms at the early stages (3). The typical presenting symptoms include abdomino-pelvic pain or pressure symptoms and vaginal bleeding (4) However, a correct diagnosis is rarely achieved preoperatively and in many cases, the diagnosis is made after incidental surgery for unrelated conditions (5). PFTC is often mistaken for benign pelvic disease or ovarian cancer. Primary adenocarcinoma of the fallopian tube with papillary features is the most common histological type of primary tubal cancer (>90%). Especially, serous carcinoma appears to be the most common histologic type. Compared with ovarian carcinoma, PFTC more often presents at early stages, but it has a worse prognosis. PFTC is usually managed in the same manner as ovarian cancer (6). We report here a case of PFTC that presented as an adnexal mass and we have briefly reviewed the relevant published literature.

CASE REPORT: A 55-year-old woman (Para 5), who attained menopause at the age of 45, reported to the Department of Gynaecological Oncology, at Regional Cancer Centre with complaints of severe lower abdominal pain, nausea, vomiting, constipation, discharge and bleeding per vaginum, for about preceding 30 days. She had undergone laparotomy one month back at her local place where the abdomen was closed after opening as surgery was not possible. Her temperature was 38°C, her blood pressure was 150/100 mmHg and the pulse rate was 88/ minute. Bilateral lower quadrant tenderness was noticed upon physical examination. On pelvic examination, she had adnexal

tenderness however uterus could not be felt separately and mobility was restricted. The computerized tomography (CT) scan revealed heterogenous mass arising from adnexal region having dimensions of 6.7x 4.4 cms (axially) and 8.5 x 7.4 cms (coronally) which was infiltrating fundal area of uterus and adjacent small and large bowel with loss of fat planes. Few para-aortic lymph nodes were found to be affected. Bilateral renal cortical cyst and scar dehiscence were present. The CA 125 antigen level was 388 U/mL and the CA 19-9 level was normal. The white cell count on admission was raised and rests of the reports were within normal range.

Laparotomy was carried out wherein small gut, caecum, uterus and omentum were found to be adherent With careful dissection, whole of the omentum was removed. We managed to enter the pelvis and a tumor of 7cms x 10 cms seemed to be arising from the right fallopian tube which was infiltrating the posterior abdominal wall. The whole of tumor tissue along with the fallopian tube and right ovary was removed. The uterus and ovary of left side was also removed. Both the ovaries were normal in shape and size. Pelvic and para-aortic lymphadenectomy of right side was carried out. A staging workup was performed.

The histopathologic examination revealed poorly differentiated serous adenocarcinoma of the right fallopian tube with infiltration of the muscularis propria and showing vascular invasion. The omentum showed large numbers of malignant cell deposits. The uterus, both the ovaries, left fallopian tube and lymph nodes were free of malignant cells. The patient was administered six cycles of postoperative adjuvant therapy with Carboplatin and Taxol at three weeks interval. After three months of last chemotherapy session, the serum CA-125 level was observed to be normal and the CT scan was also found to be normal.

DISCUSSION: The rarity of fallopian tube carcinoma has inhibited the definition of its natural history and the delineation of optimal treatment. The peak incidence is between the ages of 60 and 64 years, with the mean age of incidence being 55 years (age range: 17~88 years) (7). A correct diagnosis of PFTC was made preoperatively in only 4.6% of cases in the series of Alvarado-Cabrero et al. (8). There are no known predisposing factors, but it has been found to be associated with nulliparity and infertility, as well as with pelvic inflammatory disease (9). The pathogenesis is obscure. PFTC should be included in the differential diagnosis and especially if the patient has clinical symptoms such as vaginal discharge or abnormal genital bleeding with negative diagnostic curettage. Making the preoperative diagnosis of PFTC could be assisted by measurement of the serum levels of CA 125, which is elevated in 65% of PFTC patients (10). The CA 125 antigen is expressed in fallopian tube carcinoma. Therefore, CA 125 should be used in the diagnosis and follow-up. Although rare, PFTC must be considered in the differential diagnosis of adnexal masses, and particularly in the presence of incomplete septations and a highly vascular, solid component. The lesion can have the appearance of a small, solid, lobulated mass on a CT scan or MRI. On a CT scan, the lesion has attenuation equal to that of other soft tissue masses and its enhancement is less than the myometrium. PFTC spreads by local invasion, transluminal migration, via the lymphatics and the bloodstream (9).

The FIGO system for staging of fallopian tube carcinoma is similar to surgical staging criteria for ovarian carcinoma. Patients with PFTC have a higher rate of retroperitoneal and distant metastases than those patients with epithelial ovarian cancer (9). Metastases to the para-aortic lymph nodes have been documented in 33% of the patients with all stages of disease. The stage of

disease at the time of diagnosis is the most important factor affecting the prognosis, and the 5-year survival rate for all the patients with fallopian tube carcinoma has been reported to range from 30% to 50% (11). The other clinicopathologic prognostic factors include residual disease after cytoreduction, the presence of ascites and the histologic grade. Surgery is the treatment of choice for PFTC, and the surgical principles are the same as those used for ovarian cancer. The procedure of choice is abdominal total hysterectomy, bilateral salpingo-oophorectomy, omentectomy, selective pelvic and para-aortic lymphadenectomy for any stage for fallopian tube carcinoma. Postoperative adjuvant chemotherapy that's similar to that used for ovarian carcinoma is employed with intravenous taxol and cisplatin being today's drug combination of choice. The role of postoperative radiotherapy is even less clear (11). The diagnosis of PFTC is rarely considered preoperatively and it is usually first appreciated at the time of operation or after operation by the pathologist. PFTC should be taken into account for making the differential diagnosis of a suspicious adnexal mass or a presumptive tubo-ovarian abscess in all post-menopausal women and also in the pre-menopausal women who fail to respond to antibiotic therapy and drainage.

Some authors have recommended the routine use of second look laparotomy (SLL) in fallopian tube carcinoma as a guide to further treatment.[12,13] Treatment of rare malignancies is always problematic as there is usually no standard therapy based on randomized studies and this holds true in fallopian tube carcinoma, as well. Since fallopian tube carcinomas resemble ovarian carcinomas they have usually been treated in a similar fashion. [14, 15]. Our case was suspected and diagnosed intraoperatively and was confirmed by histopathology. It would not be imprudent to conclude that such cases call for rather more extensive clinical research so as to be able to establish definite etiologic diagnosis and congruent optimal management model be made regimental and may be suitable prognostic markers can be looked into.

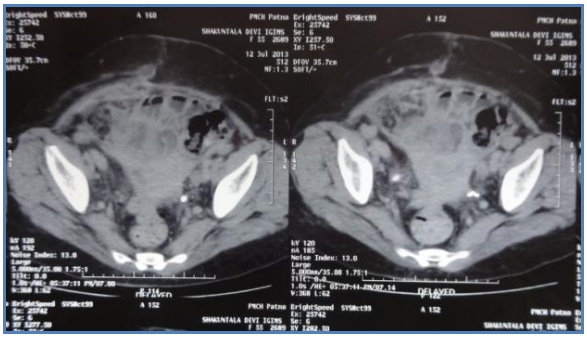

Fig. 1: Axial section showing infiltration of mass

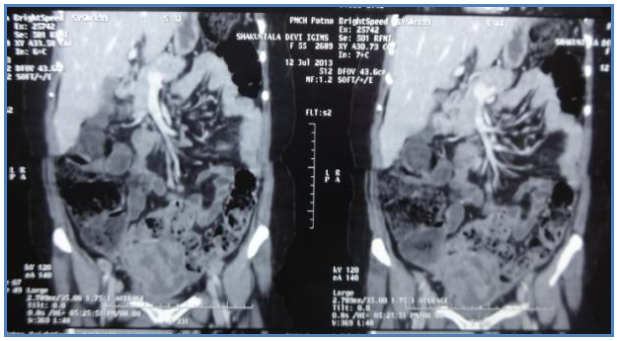

Fig. 2: Coronal section of mass

Fig.3: Tubal mass on right,uterus and bilateral ovaries are normal

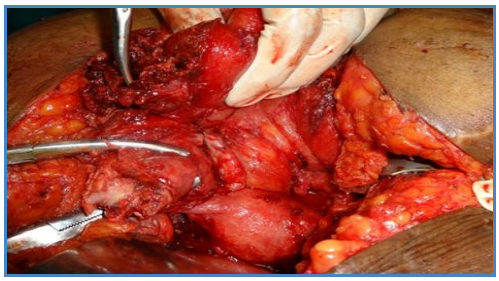

Fig. 4: Tubal mass showing fimbrial involvement

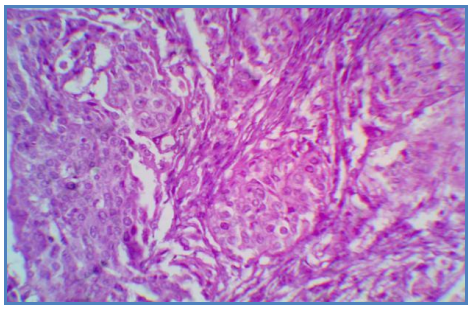

Fig. 5: Shows irregular clusters of malignant cells in form of sheets and nests, infiltrating the muscularis propria of Fallopian tube.

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