

# PRIMARY CARCINOMA OF THE FALLOPIAN TUBE

## (Report of Two Cases)

by

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Primary carcinoma of the fallopian tube is the least common malignancy of the female genital tract. Because of its rarity every authentic case should be reported and documented. It is advisable that cancer of the fallopian tube be declared a notifiable disease when diagnosed, so that the recording of the cases is thereby stepped up.

This paper is a report on two cases of tubal carcinoma which were almost simultaneously diagnosed at the Medical College Hospitals, Nagpur.

### Case Report I.

R. B., a 45 year old Hindu woman made her first visit to the hospital on the 14th of August 1961, and got admitted on the same day. Her complaints on admission were intermittent profuse white discharge per vaginam, intermittent colicky pain in the abdomen, swelling of the inguinal region and irregular menstruation, all of which were of 6 months' duration. Menarche was at the age of 14 years, with a 28 day cycle, the bleeding lasting from four to five days. During the last six months, however, period occurred at intervals of 40, 50 and 60 days, the bleeding lasting for about ten days. She had 2 full-term deliveries followed by an abortion 9 years back. Physical examination revealed a moderately built middle-aged woman, slightly anaemic. No oedema over the dependant parts. Inguinal group of glands on both sides were enlarged to about  $\frac{1}{2}$ " x  $\frac{1}{2}$ " mobile, discrete, not tender,

but more so on the right side than on the left. Systemic examination revealed nothing in particular.

**Pelvic examination.** Cervix backwards and conical, uterus anteverted and bulky, about 8 to 10 weeks of pregnant uterine size. Right fornix: a firm mobile mass, about 4" x 3" and connected to the uterus with a pedicle, was felt. The mass was firm, craggy, irregular to feel and not tender. There were masses on the anterior, posterior and the left side of the uterus, each of about  $1\frac{1}{2}$ " x 1" in size and firm in consistency, which could not be separated from the uterus. Speculum examination: the cervix was healthy. There was unhealthy discharge per vaginam but the vaginal walls were normal. Laboratory investigations consisted of a complete blood picture and urine analysis. They were normal. The patient was tentatively diagnosed as genital tuberculosis, or cancer body of uterus. She was examined under anaesthesia and curettage was done. Endometrium was in proliferative phase. The patient was taken for laparotomy on 29-8-1961. The uterus with multiple myomata, arising from the anterior, left lateral and posterior walls, along with a tumour of about 5" x 3" arising from the right fallopian tube, was removed together with a good cuff of the vagina. Both ovaries were normal. But the left tube although normal had a fimbrial cyst and was adherent to the pouch of Douglas. It was also removed. As the diagnosis of carcinoma of fallopian tube was made while operating, the liver, mesenteric and para-aortic group of glands were palpated but were all found clinically free from meta-



states. The patient had an uncomplicated post-operative period. On receipt of the pathological report, which confirmed the tubal carcinoma, she was given an external radiation of 3400 r to the pelvis.

**Macroscopic.** The specimen consisted of an uterus enlarged to about 8 to 10 weeks' pregnant uterine size. Myohyperplasia was present. There was no growth on the endometrial surface. Two intramural myomas which had a tendency to become subserous were found; one on the fundus and another on the posterior wall. The third myoma which was arising from the left lateral wall of the uterus had encroached between the two layers of the broad ligament. The right fallopian tube had enlarged to a size measuring 5" x 4" x 2". While the wall of the tube was intact, it had an irregular surface and was firm (Fig. 1).

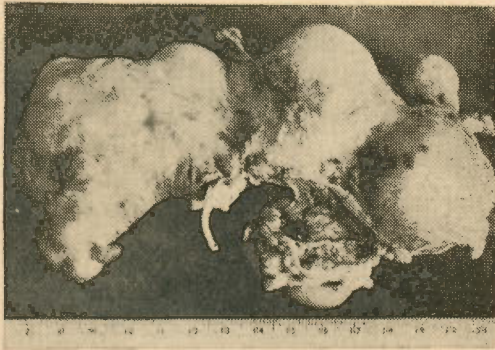


Fig. 1

On cutting through the specimen, purulent blood-stained fluid came out. The lumen of the tube was occupied by a friable, granular, greyish tumour mass. Both the ovaries were normal, but the left tube had a fimbrial cyst.

**Microscopic.** B 61—4228—32. Leiomyoma of the uterus. The tube showed anaplastic carcinoma with areas of necrosis and haemorrhage. The tubal wall had thinned out with invasion of tumour in some of the sections. The tumour mass also showed anaplastic type of carcinoma with areas of haemorrhage and necrosis (Fig. 2). Endometrium was in a proliferative phase. Ovary did not show any evidence of primary or metastatic tumour.

On following up the case, while no evidence of any recurrence of the growth was found, the physical condition was not found to be satisfactory. On 23-8-1962 she got readmitted with complaints of haemoptysis and free fluid in the abdomen. There were secondary metastases in the liver, mesenteric glands and lungs. On 30-8-1962, exactly a year after the date of operation, the patient expired. No post-mortem was available.

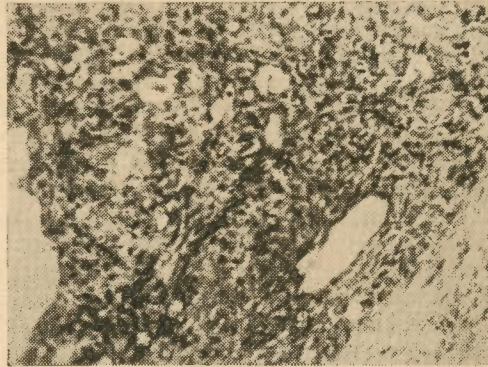


Fig. 2

**Case Report II.** G. S., a 57 years old muslim patient came to the out-patients' department with complaints of blood-stained discharge per vaginam and pain in abdomen, both of 8 weeks' duration. She had menopause 9 years back. She had one full-term normal delivery 25 years back. Past medical history was non-contributory.

Physical examination revealed that she was an obese elderly woman. There was no lymphadenopathy. Oedema was not present on the dependant parts; cardiovascular and respiratory systems were normal. Anterior abdominal wall was thick; but no lump or mass was palpable per abdomen.

Pelvic examination: cervix was flush with vagina. Uterus was anteverted and of normal size. It could not, however, be made out separately from a firm mass of about 2" x 2½" size situated in anterior and right fornix. A separate mass about 1" in diameter and firm in consistency, was felt in the left fornix. Cervix was healthy on speculum examination. On rectal examination the findings of the vaginal examination were confirmed. A tentative diagnosis of



malignant ovarian tumour was made and the patient was examined under anaesthesia. Endometrial curettage could not be done as the cervix was not dilatable. Laboratory investigations of the complete blood picture and urine analysis were done. They were found to be essentially normal. Patient had a laparotomy on 27-7-1962. The uterus which was smaller than normal in size, the left tube which was carcinomatous, the left ovary which was infiltrated by the growth and a broad ligamentous fibroid on the left side, together with the right tube and right ovary, which had a retention cyst, were removed. Stump of the cervix was left behind as it was technically difficult to excise the same due to firm adhesions. A small nodule infiltrating the pelvic colon was present and could not be removed. The post-operative period was uneventful. Patient received post-operative deep x-ray therapy of a dose of 3000 r to pelvis and 3000 r to paraortic nodes.

**Macroscopic.** Uterus was found smaller than normal in size, and the endometrial surface was smooth. The left tube was enlarged and measured 2" x 1". It was firm. Tubal wall was intact, except on the posterior side. On cutting through the specimen, plenty of unhealthy polypoidal growth protruded out. The right tube and the ovary were found to be normal.

**Microscopic.** The tube showed adenomatous papillary growth infiltrating the wall of the tube (Fig. 3). In myometrium there was no evidence of infiltration. Leiomyoma of the uterine wall was present.



Fig. 3

Left ovarian cyst wall showed adenocarcinomatous deposit. The right ovary was normal. Endometrium was in proliferative phase.

At present, the patient has no complaints and on examination does not reveal any recurrence of the growth. The last follow-up examination was made on 23-11-1963.

### Comment

**Incidence.** During the last two centuries, sporadic cases of cancer of the fallopian tube have been reported. Nearly 600 cases have been recorded up-to-date. The overall incidence, as reported by different institutions, ranges from 0.31 per cent to 1.6 per cent of the total genital malignancy.

As reported by Boschann (Alexander, 1961), the relative frequency is one in 1000 gynaecological abdominal operations. Emge et al. (1948) reported 6 cases of tubal carcinoma out of 1350 total gynaecological malignancies i.e. an incidence of 0.49 per cent. During a period of ten years, as reported by Arthur (1956), there were 435 cases of cancer of the genital tract at the Bath Israel Hospital. Seven of these were cases of primary carcinoma of the fallopian tube i.e. an incidence of 1.6 per cent. In our country, 6 cases have been reported so far. Not a single case has been reported from the Tata Cancer Hospital, Bombay (Masani, 1963). In our series we had 2 cases of tubal carcinoma out of 2288 total gynaecological malignancy admitted during the past 11 years i.e. an incidence of 0.87 per cent.

**Aetiological Factors.** No definite aetiological factors have so far been assigned to this condition. The high incidence of malignancy of the cervix and the uterus as compared with the



low occurrence of malignancy of the vagina and the tubes has repeatedly been pointed out by most of the authors. Oviducts are less susceptible to obstetrical trauma, as compared to the cervix and uterus. It has been claimed in the past that chronic inflammation of the adnexae, fibromyoma and pelvic tuberculosis create conditions responsible for the development of the carcinoma in the tube. No definite conclusions can, however, be drawn from this observation since pelvic tuberculosis, fibromyoma and pelvic inflammatory diseases are fairly common and tubal carcinomas are rare. However, in both the cases of our series fibroids were associated with tubal carcinoma.

*Age.* In his review, Alexander (1961) has analysed 232 cases of carcinoma fallopian tube in relation to the age of the patients. The highest incidence of carcinoma of the fallopian tube is reported as between the ages 40 to 60 years. But cases occurring at extreme ages have also been reported. Johnson and Miller (Leroy, 1952) recorded a case of a girl aged 18 years in the year 1931. Leroy (1952) recorded a case in a woman aged 80 years.

*Pathology.* Cancer affects the middle third or outer third of the tube and is bilateral in about 30 per cent of the cases. The tube becomes enlarged and is more or less retort-shaped with a narrow end at the isthmus. The abdominal ostium may be open or closed. On section, friable growth is found filling the lumen. The tube wall is thin and is rarely invaded by the growth.

*Microscopic.* There are papillae covered by a malignant epithelium of

several layers. The tips of the papillae tend to adhere to each other giving rise to a papillary adeno-carcinoma (pseudo-alveolar). The epithelial layer is heaped up and very actively growing. The individual cell shows frequent mitosis.

*Mode of Spread.* The malignancy spreads directly either through the tubal ostium involving the peritoneum and the surrounding organs, viz., ovary, omentum and intestines or from the isthmus portion to the uterine cavity. It can also spread by way of lymphatics. Involvement of lungs, liver, spleen, large intestine, diaphragm and skin takes place by blood borne metastases.

*Symptoms.* The three symptoms consisting of pain, metrorrhagia and leucorrhoea were considered, in early literature, as an almost pathognomic manifestation of tubal carcinoma. This may be true in an elderly patient, but in younger age groups these symptoms may not help in the crucial diagnosis. Profuse serosanguinous vaginal discharge occurs in spurts with unilateral pain in the lower abdomen. Post-menopausal bleeding is the characteristic feature of tubal carcinoma. Palpable unilateral or bilateral masses in the abdomen indicate that the disease is at an advanced stage.

*Diagnosis.* Early cases of fallopian cancer are extremely difficult to detect. Symptoms of the disease in their early stage are often not significant enough to require medical attention. Patients usually seek medical advice only from about 3 months onwards. Pre-operative diagnosis is extremely difficult except when facilities for cytological study of the



vaginal and cervical secretions are available. During cytological study, the cervical and uterine malignancy should be excluded by cervical biopsy and endometrial curettage. This might favour the diagnosis of either tubal or ovarian malignancy. The place of hysterosalpingogram in the diagnosis of tubal malignancy has been discussed by Autonowitsch and Burgdeff (Alexander, 1961). Pedunculated wart-like excrecency pattern is a typical feature of tubal carcinoma. However, the use of radio-opaque material for diagnostic purposes, has been abandoned largely because of the danger of its spread by spill. Colposcopy and culdoscopic study had been advised by Bochann (Alexander, 1961), but laparotomy with frozen section study remains the ideal means for diagnosis. Unfortunately carcinoma of fallopian tube presents a diagnostic challenge and hence bears a gloomy prognosis.

*Treatment.* There is no uniformity of opinion among authors regarding the treatment of tubal carcinoma. This may be because of the limited and sporadic number of cases reported, making it difficult to carry out a comparative method of study. Whatever may be the line of treatment, 75 to 80 per cent of the patients die within 1 to 4 years. The 5 year survival rate is hardly 23.3 per cent (Alexander, 1961). Panhysterectomy followed by post-operative deep x-ray therapy is a treatment of choice; 2000 to 3000 air administered to each part over a period of 2-3 months. From the follow-up of these cases it has been found that mortality is very high during the first 2 years following operation. Use of nitrogen mustard

post-operatively has been recommended by some authors.

#### *Summary*

(1) Two cases of primary carcinoma of fallopian tube have been reported.

(2) Incidence of carcinoma of fallopian tube is given in Medical College Hospital, Nagpur and is compared with others.

(3) Review of literature has been given.

#### *Acknowledgement*

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