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A CASE OF PRIMARY ADENOCARCINOMA OF THE FALLOPIAN TUBE

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PRIMARY ADENOCARCINOMA of the fallopian tube is a rare condition and is the least common malignancy of the female genital tract. Its incidence has been reported to be between 0.1 to 1.6%. In this paper, we report the first case of primary adenocarcinoma of the fallopian tube seen in the University Hospital, Kuala Lumpur.

CASE HISTORY

O.S., a 60 year old Chinese, para 9, was first seen in March 1973 complaining of watery, smelly vaginal discharge for 8 months, and post-menopausal bleeding per vaginam for 3–4 months. General physical examination and vaginal examination revealed no abnormality. Investigations, including full hematological examination, blood urea, serum electrolytes, urine for microscopic and bacteriological examination, chest X-ray and electrocardiogram were all normal. A Pap smear taken on 1-3-73 revealed spindle-shaped epithelial cells resembling transitional cells of the bladder, and parabasal squamous cells. Occasional abnormal cells with hyperchromatic nuclei and irregular margins were present, strongly suggesting malignancy.

Further investigations along the diagnosis of a genito-urinary fistula were done, including a 3-swab methylene blue test, intravenous pyelogram and examination under anaeesthesia with cystoscopy, but all were negative.

A repeat Pap smear on 13-3-73 showed no malignant cells. This was followed by a diagnostic curettage but no curettings were obtained from the endocervical canal or the endometrial cavity.

Repeat Pap smear on 15-3-73 revealed the reappearance of clusters of abnormal cells. A 24-hour urine sample for cytological analysis was negative.

At follow-up, she was still complaining of "leaking" vaginally. This time, she had slight tenderness in the left iliac fossa on abdominal palpation. Vaginal examination revealed a discrete, tender nodule 2 × 2 cm in size, rather fixed to the left border of the uterus. A diagnosis of carcinoma of the fallopian tube was made and a laparotomy decided upon.

Laparotomy was performed on 23-4-73. This showed the uterus to be of normal size, the right fallopian tube and ovary were normal, and the left ovary was normal. The left fallopian tube was enlarged by a nodular, elongated growth (Figure 1) with adhesions to the anterior rectal wall, left ovary and left lateral pelvic wall. The tumour involved the outer half of the tube, leaving the initial proximal half intact and normal. The right lateral pelvic wall was clear, but there were some friable, bleeding nodules on the left lateral pelvic wall. There was no evidence of any secondaries in the peritoneal cavity, pouch of Douglas, liver and the para-aortic nodes.

A total hysterectomy and bilateral salpingo-oophorectomy was done and 800 mg of cyclophosphamide (Endoxan) instilled intraperitoneally.

Histological examination of the operative specimen revealed that sections of the left fallopian tube showed a papillary carcinoma infiltrating its muscle

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coat. The tumour involved the fimbrial end of the tube and was adherent to the ovary. The left ovary was, however, not infiltrated and was free from any primary carcinoma (Figure 2). The right ovary showed normal structural components and was free from any primary neoplasm. The adenocarcinoma showed both a papillary pattern as well as an alveolar pattern in some places (Figure 2), and was composed of cells showing nuclear irregularities, nuclear hyperchromatism and mitotic figures (Figure 3).

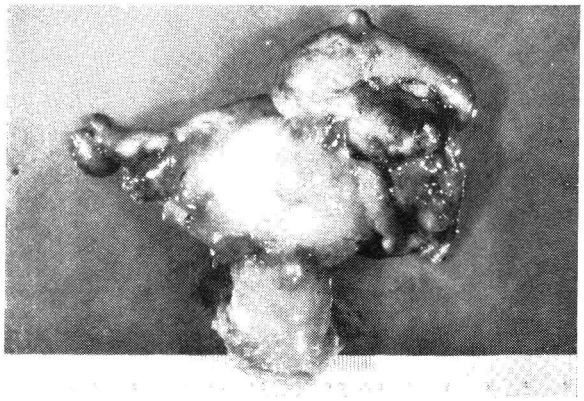

Figure 1

Operative specimen of uterus and appendages, showing the left fallopian tube enlarged by a nodular, elongated mass. The right fallopian tube is normal.

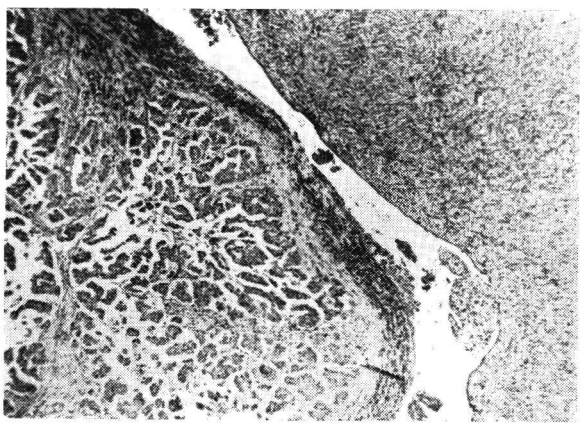

Figure 2

Photomicrograph showing tumour cells in the left fallopian tube arranged in papillary and alveolar patterns. The left ovary is not infiltrated and is free from any primary carcinoma. (× 62.5)

Sections of endometrium and uterine wall in the left cornual end showed no evidence of endometrial cancer. The endometrium was atrophic and the myometrium was fibrotic. The cervix was fibrotic and showed no evidence of cancer.

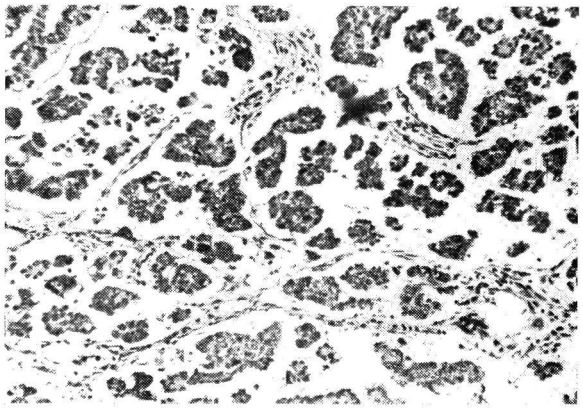

Figure 3

Photomicrograph showing carcinomatous cells with marked hyperchromatism of nuclei and nuclear irregularities. (× 125)

Further treatment was instituted in the form of intermittent massive dose infusions of Endoxan at monthly intervals, viz: 1600 mg on 1-5-73, 1000 mg on 1-6-73, 1000 mg on 1-7-73, and 1000 mg on 28-7-73. Abdominal and vaginal examinations at follow-up visits revealed no recurrence of tumour.

In June, 1975, she complained of neck swelling, lower abdominal pain and low back pain. Examination revealed 4 enlarged lymph nodes in the right supraclavicular region, and a firm fixed mass above the vaginal vault. A biopsy of one of the supraclavicular nodes on the right side revealed metastatic carcinoma. Chest X-ray was clear and X-ray of the lumbo-sacral region showed no evidence of any secondaries. She was given another course of Endoxan 1600 mg.

She requested continuation of therapy in Alor Star General Hospital. She died in November, 1975 of metastatic carcinoma.

DISCUSSION

Tumour staging in this patient is Stage IV, FIGO Classification. Prognosis for this stage is a 5-year survival of less than 15% (Boutselis and Thomson, 1971; Erez, Kaplan and Wall, 1967; Schiller and Silverberg, 1971). In fact, the overall 5-year survival rate for primary tubal cancer is poor, less than 35% in most reports (Boutselis and Thomson, 1971; Erez, Kaplan and Wall, 1967; Green and Scully, 1962; Schiller and Silverberg, 1971; Sedlis, 1961).

Treatmentwise, most authors recommend initial total hysterectomy and bilateral salpingo-oophorectomy supplemented by radiotherapy (Boutselis and Thomson, 1971; Erez, Kaplan and Wall, 1967; Fogh, 1969; Sedlis, 1961), and in some instances, by chemotherapy as well (Boutselis and Thomson, 1971; Erez, Kaplan and Wall, 1967; Green and Scully, 1962; Phelps and Chapman, 1974). The main chemotherapeutic agents used are alkylating agents.

Although most reports indicate that post-operative radiotherapy is not that beneficial, Boutselis and Thomson (1971), and Fogh (1969) have reported improved survival especially with super-voltage therapy. Phelps and Chapman (1974) noted an improved survival in those patients who received supplementary chemotherapy. Our patient received supplementary Endoxan therapy but survived for only $2\frac{1}{2}$ years after initial surgery.

Most patients with primary tubal cancer are between 50–60 years of age when first seen (Boutselis and Thomson, 1971; Erez, Kaplan and Wall, 1967; Fogh, 1969; Persaud and Burkett, 1971; Sedlis, 1961). Our patient was 60 years of age.

The problem in primary tubal cancer is usually one of diagnosis prior to surgery. As Persaud and Burkett (1971) put it "the clinical diagnosis is extremely difficult and is almost never made prior to surgery". The diagnosis was, nevertheless, made pre-operatively in our patient. Clinical suspicion was based on the following features in our patient: postmenopausal bleeding, watery vaginal discharge, positive cytology, negative endometrial curettage and no cervical lesion. The presence of the adnexal mass helped to strengthen the diagnosis.

The laparotomy and histopathological findings in this patient conform to the pathological criteria necessary for diagnosis, i.e., the tumour is a papillary growth in the endosalpinx; there is a transition between normal and abnormal tubal epithelium; the uterus is normal and the ovary is normal.

Primary carcinoma of the fallopian tube is therefore rare, the pre-operative diagnosis difficult and treatment modalities are still unsatisfactory. Nevertheless, one must suspect this diagnosis in any gynaecological patient in whom the suspicion of cancer is high but yet all initial investigations have proved to be negative. Although present day treatment only provides for either supplementary radiotherapy or chemotherapy, a probable logical approach to treatment would be to supplement surgery with radiotherapy as well as chemotherapy.

SUMMARY

A case of primary adenocarcinoma of the fallopian tube is presented. The clinical presentation, treatment and follow up are outlined. Points stressed include difficulty in diagnosis pre-operatively, the lack of a satisfactory regime of treatment, and the overall poor prognosis of this tumour.

REFERENCES

Boutselis, J.G., and Thomson, J.N., (1971), "Clinical aspects of primary carcinoma of the fallopian tube", *Amer. J. Obst. & Gynec.*, **111:** 98–101.

Erez, S., Kaplan, A.L., and Wall, J.A., (1967), "Clinical Staging of carcinoma of the fallopian tube", *Obstet. & Gynec.*, **30:** 547–550.

Fogh, I., (1969), "Primary carcinoma of the fallopian tube", *Cancer*, **23:** 1332–1335.

Green, T.H. Jr., and Scully, R.E., (1962), "Tumours of the fallopian tube", *Clin. Obst. & Gynec.*, **5:** 886–906.

Persaud, V., and Burkett, G., (1971), "A case of primary carcinoma of the fallopian tube", *West Ind. Med. J.*, **20:** 46–50.

Phelps, H.M., and Chapman, K.E., (1974), "Role of radiation therapy in the treatment of primary carcinoma of the fallopian tube", *Obstet. Gynec.*, **43:** 669–673.

Schiller, H.M., and Silverberg, S.G., (1971), "Staging and prognosis in primary carcinoma of the fallopian tube", *Cancer*, **28:** 389–395.

Sedlis, A. (1961), "Primary carcinoma of the fallopian tube", *Obstet. & Gynec. Survey*, **16:** 209–226.