

OVARIAN CANCER — A FEW FACTS

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Cancer anywhere in the human body has offered a great challenge to the medical profession. In gynaecologic cancer we are more fortunate on account of its easy accessibility, early diagnosis and improved methods of treatment. According to Howard Taylor of New York, whereas the death rate from uterine cancer is falling that from ovarian cancer is rising. He has also noticed a rise in the incidence of ovarian malignancy. The whole question of ovarian malignancy is rather difficult due to the large number of border-line tumours which are so frequently observed in the case of papillary cystadenocarcinomas. Malignancy of granulosa cell tumours is another problem where it is difficult for two histopathologists to agree. The above factors are perhaps responsible for the wide variations in incidence as reported from different centres.

In the Lady Hardinge Hospital, from 1st January 1957 to 1st October 1960, the total number of gynaecological admissions numbered 4801,

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of which 317 were cases of ovarian neoplasms giving an incidence of 6.6%. On further analysis it was found that 69 (21.6%) were diagnosed as malignant.

TABLE I

	No. of cases	Percentage
Total gynaecological admissions	4801	100%
Total ovarian tumours	317	6.6%

TABLE II

	No. of cases	Percentage
Total ovarian tumours	317	100%
Benign	248	78.4%
Malignant	69	21.6%

This figure is in agreement with those of the other workers, Way (1951) 28%, and Taylor (1950) 26%.

TABLE III

	No. of cases	Percentage
Total genital cancer	817	100%
Total ovarian cancer	69	8.4%
Total corpus cancer	28	3.4%
Total cervical cancer	671	82.1%

With regard to the incidence, ovarian cancer constituted 8.4% of

the total number of 817 cases of gynaecological cancer. During the same period, carcinoma of the body of the uterus presented 23 times (3.4%) and cervical cancer 82.1%. The above figures are totally different from those seen in the west. In New York State, in 1953, ovarian cancer to cancer body to cancer cervix was in the ratio of 4.9 to 6.1 to 9.6.

In 1952 the Registrar-General for England and Wales showed that the mortality from carcinoma of the ovary and fallopian tubes and broad ligament was about the same as for carcinoma of the cervix. This discrepancy may be accounted for partly by the lower expectancy of life in India. It is interesting to note that whereas the incidence of carcinoma of the body of the uterus is much higher in the western countries, in India ovarian cancer far exceeds fundal carcinoma. In the above series ovarian cancer formed 1.2% of all gynaecological admissions whereas Randall's figure (1952) was 2.6%. Pearse Golub found that ovarian cancer formed 8 — 10% of all gynaecological cancer, which is in agreement with the present series.

TABLE IV

	No. of cases	Percentage
Below 15 years	1	1.4%
16-24 years	6	8.7%
25-34 years	18	26.0%
35-44 years	19	27.6%
45-54 years	17	24.7%
55 and above	8	11.6%
Total	69	100.0%

The age relationship is also interesting in that 62.3% of the cases were between the ages of 16 and 44

years. Randall and Gerhardt (1954) found 60.0% of their cases after the age of 50 years and 30.0% in the child-bearing age. Ten per cent of their cases occurred in the pre-pubertal age whereas the figure is 1.4% in the present series.

Nulliparity was not a prominent feature though it has been reported by some authors (Allan, Pears). In spite of repeated questioning no significant family history of malignancy was forthcoming in the present series.

As far as the symptomology and clinical features are concerned no correlation can be made out. Vague history, like heaviness in the abdomen, distension, diffuse pain and gastro-intestinal upsets, was quite common but were not uniformly obtained. The primary complaint in the majority of cases was of a mass in the abdomen. Herewith is presented a case history whose primary complaint was a mass in the abdomen.

Patient K, aged 25 years, married for 4 years, third gravida, was first seen in April 1960, for a gradually increasing mass in the abdomen for the last 3 years. When seen she was also 3 months pregnant. No previous history of menstrual disturbances or pain in the abdomen was elicited. On examination she was found to have a mass in the abdomen of the size of 36 weeks' pregnancy. It had the consistency of the uterus but no foetal parts were felt and no foetal heart sounds were heard. No free fluid was elicited in the abdomen. On vaginal examination the twelve weeks' size pregnant uterus was felt separately from the left ovarian mass felt per abdomen. On laparotomy the uterus and right ovary were found to be normal. The left ovary was replaced by a fleshy tumour 12" x 12" bluish red in colour, with a smooth surface but having a variable consistency. It was solid and cystic at places. There was no free

fluid in the abdomen. Left ovariectomy was performed but since the pathologists reported the tumour to be pseudomucinous cystadenocarcinoma a panhysterectomy was done later on (Fig. 1). She had a smooth

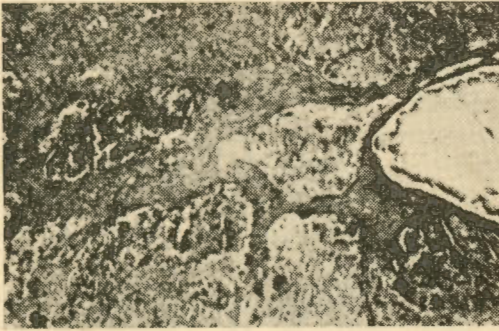


Fig. 1

Pseudomucinous cyst adenocarcinoma of ovary.

post-operative period and had 32 exposures of deep X-ray, total dose being 4000r. She is being checked up periodically in the cancer clinic and upto the present time there are no signs of recurrence of malignancy in the pelvis or distant metastases.

Comment

This is an unusual case in that the patient is only 25 years old and the malignant tumour of the ovary occurred in association with pregnancy. This was the only malignant ovarian neoplasm seen this year in our hospital associated with pregnancy. Though it has been reported that pregnancy usually results in rapid growth of the tumour no such history has been elicited in this case. Pseudomucinous cystadenomas have a 5% malignancy and commonly are not found to be highly malignant. In this case probably the tumour was benign initially as the patient had known about it for the last 3 years.

Out of a total 69 cases only 41 were considered operable and of these 23

TABLE V

	No. of cases	Percentage
Total laparotomies	41	100%
Inoperable	15	36.6%
Partially removed	3	7.3%
Completely removed	23	56.1%

or 56.1% were completely removable. Meigs found 50% of his cases inoperable when first diagnosed and Diddle (1949) reported only 6% of his tumours to be completely removable. Corscaden working on the delay in making a diagnosis found 50% of the ovarian tumours were neglected by the patients themselves. This delay in diagnosis and the lower five-year salvage rate in ovarian cancer had brought about the idea of prophylactic oophorectomy, specially after menopause. From Table V it can be seen that 15 or 36.6% of the cases were found to be inoperable at laparotomy whereas in 7.3% the tumour could be partially removed.

TABLE VI

	No. of cases	Percentage
Total operated	41	100%
Unilateral	15	27%
Bilateral	26	63%

Malignant tumours of the ovary are commonly bilateral which is also the reason for removal of both ovaries when the tumour is apparently only in one ovary. In the present series bilateral tumours were found in 63% of the cases operated upon, which is comparatively a high figure. Corscaden found 37% of cystadenocarcinomas and 13% pseudomucinous cystadenomas were bilateral.

TABLE VII

Types	No. of cases	Percentage
Papillary adenocarcinoma	18	44%
Malignant teratoma	4	9.7%
Anaplastic carcinoma	3	7.3%
Pseudomucinous cystadenocarcinoma	2	4.9%
Functional tumours	2	4.9%
Dysgerminoma	1	2.4%
Krukenberg	1	2.4%
Unclassified	10	24.4%
Total	41	100%

Table VII gives the histological classification of the cases which were operated upon. One interesting feature is that nearly one quarter of the cases could not be classified by the histopathologist even though malignancy was quite obvious. Malignant teratoma shows rather a high incidence with a figure of about 10%, vice versa the figure for secondary metastatic cancer of the ovary is very low 2.4%. Claud Taylor (1950) and Munnell and Howard Taylor's figures are 18.6 and 20.5% respectively.

A case history of an interesting case of malignant teratoma is reported herewith.

Patient B, aged 45 years, was transferred in July 1960 from the Medical wards to the Gynaecology Unit after abdominal paracentesis showed presence of sebaceous material. She was being treated as a case of ascites. On tapping the abdomen 2 c.c. of sebaceous material was withdrawn giving the provisional diagnosis of a dermoid cyst. The microscopic examination of the fluid revealed flattened cells but there was no evidence of exfoliated malignant cells.

On examination the patient was found to have generalised enlargement of the abdomen, more marked in the flanks, giving a deceptive appearance of ascites. The margins of the tumour could not be palpated. On vaginal examination the mass was found to be tipped in all the fornices. The uterus

was small, in retroverted position and the cervix was healthy. On laparotomy, making a 3" incision, the cystic mass came into view and was found to be adherent all over to the parietal peritoneum. It was found, however, that the cyst wall could be separated from the parietes by careful dissection. The tumour extended from about 2" below the xiphisternum to the symphysis pubis and on to both the flanks. The incision was enlarged to 3" above the umbilicus and cyst separated not only from the abdominal wall but also from the omentum and the intestines posteriorly. It was found to be arising from the right ovary. The abdomen was closed after doing a right ovariectomy. Panhysterectomy was not done as the patient was very weak and ill-nourished. The patient had an afebrile post-operative course and was discharged 3 weeks later.

On macroscopic examination the tumour was found to be trilocular. One locule containing a large amount of sebaceous material, the other mucoid material and the last some haemorrhagic fluid. Much to our surprise the histopathological report was that of a tubo-ovarian abscess (Figs. 2 and 3).

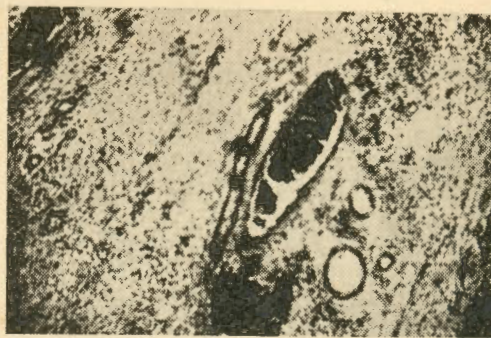


Fig. 2

Section of ovary showing oophoritis.

She was admitted 4 months later on 9-11-60 in great pain, looked very emaciated with the presence of a small mass in the line of the incisional scar. The mass was firm and a provisional diagnosis of secondary metastasis was made. Small amount of free fluid was also elicited in the peritoneal cavity. The fluid increased rapidly after admission and a needle was

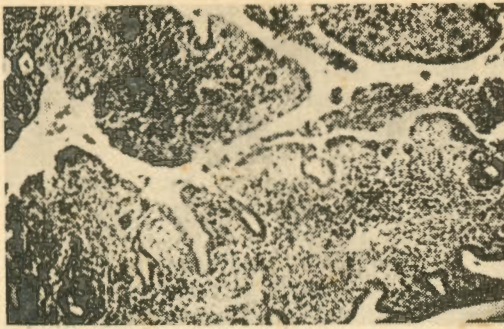


Fig. 3
Section of tube showing salpingitis.

put in the swelling, which now showed fluctuation. Faecal matter came out on aspirating the cystic swelling. Laparotomy performed a second time showed the entire abdomen to be studded with secondaries. A loop of bowel was adherent to the parietal peritoneum. The loop of gut from which the faecal matter was aspirated was exteriorised and the abdomen closed after taking a piece of growth for biopsy; patient's condition deteriorated and she expired on 23-11-60. The biopsy report came as squamous-cell carcinoma (Fig. 4).

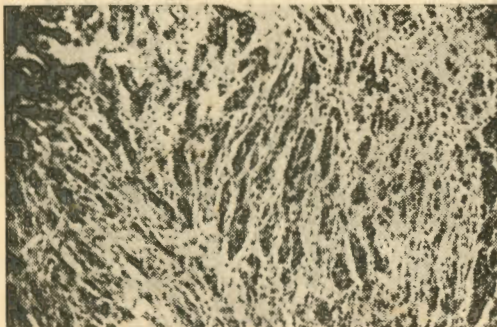


Fig. 4
Section of growth showing squamous cell carcinoma.

Comment

The patient was probably a case of malignant teratoma which was not diagnosed perhaps due to lack of serial sectioning. Here is an interest-

ing example of an associated pseudo-mucinous cystadenoma and malignant teratoma arising in the same tumour.

Treatment has been mainly operative whenever possible and in 2 cases preoperative deep X-ray was given with a view to improving the operability rate, as the tumour was found to be restricted in mobility — according to Kottmeier (1953).

The standard of treatment has been total hysterectomy with bilateral salpingo-oophorectomy wherever the growth can be completely removed. The uterus was left in 3 cases where the growth could not be removed completely, and radium was applied. It is difficult to say whether the salvage rate is improved by additional radium treatment. Post-operative deep X-ray therapy has been given as a routine to every case after operation according to Tod (1951). The usual dose administered is about 4000 r distributed over a period of 32 days.

6 patients out of 69 died in the hospital. Practically all were advanced cases, 2 died without any operation and one death occurred on the fourth day probably due to pulmonary embolism.

It is much to be regretted that there was no follow-up, hence it is not possible to give the five-year survival rate.

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