

## A STUDY OF OVARIAN MALIGNANCY

(A Review of 149 Cases)

by

K. SIKDAR,\* M.O., M.R.C.O.G.

P. KUMAR,\*\* M.B.,B.S., D.G.O.

and

N. N. ROY CHOWDHURY,† M.O., Ph.D., F.R.C.S., F.R.C.O.G., F.A.C.S.

The ovary consists of sex cells which are totipotential, and of mesenchymal cells which are multipotential. So when it becomes neoplastic, almost any sort of tumor can result. Approximately 45% of ovarian tumors removed from patients aged 45 years or over are malignant in part or whole (Jeffcoate 1975). Cancer of ovary is now the leading cause of deaths, though cancer of the cervix is the commonest lesions amongst all cancers of the female genital tract. These cases are not only neglected by the patients resulting in detection mostly in the advanced stages when neither effective surgery nor chemotherapy can be done but also carries a poor prognosis because of their tendency to erode the ovarian capsule to involve the peritoneum and omentum. The present study was therefore undertaken to find out the correlation of the epidemiological factors, the histopathology of these tumors, mode of presentations and results of treatments.

### Material

Of the 635 cases of ovarian tumors, at-

\*Registrar.

\*\*Exhouse Surgeon,

†Professor,

Dept. of G. and O., Calcutta Medical College, Calcutta.

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tended Eden, during a period of 10 years 1969-1979 (August) 149 were found to be malignant, the incidence thus being 23%. During this period, 2176 cases of cancer of the female genital tract attended Eden hospital, out of them 1937 were carcinoma of cervix, 26 were cancer of vulva, 6 were cancer of vagina, 5 were cancer of fallopian tubes, 56 were cancer of body of uterus and 149 were malignant ovarian tumors. The incidence of malignant ovarian tumors amongst all cancer of female genital tract was 6% approximately.

### Observations

Table I thus showed that there was a preponderance of malignant ovarian tumors in age group 41-50 years and 46% occurred in age group between 31 to 50 years. The mean age was 39.2 years against 36.1 years as reported by Misra (1979). The youngest was 13. The present findings corroborate the earlier findings of Roychowdhury *et al* (1977). One hundred and thirty-five of these patients (90%) were married, of them 89 (65%) were married in between 16 to 20 years. This is of no significance as this is the common age of marriage in this part. 81% of ovarian tumors (table II) occurred in parous women, of them the number of

TABLE I  
Age

Age in years	10-20	21-30	31-40	41-50	51-60	61+ above
	17 (11.4%)	22 (14.6%)	30 (20%)	38 (26%)	27 (18%)	15 (10%)

TABLE II  
Parity

Nullipara	P 1-2	P 3-4	P 5 and above
28 (18.6%)	67 (45%)	39 (26%)	15 (10%)

cases having less than 3 pregnancies predominating (45%). In this series 18.6% were nullipara against 16% and 18.9% as reported by Misra (1979) and Roychowdhury *et al* (1977). The average parity in this series was 2.3 against 4 as reported by Misra (1979).

In this series 3 (2%) patients had secondary sterility for more than 10 years. Roychowdhury *et al* (1977) reported the same in 1.7% cases. Symptoms appeared before menopause in 85 (56.6%) cases and after menopause in 64 (43.4%) cases. Menstrual disorder was present in 23 (15%) cases in the form of oligomenorrhoea. Roychowdhury *et al* (1977) reported menstrual disorders in 12.8% of malignant ovarian tumors and 22% cases of benign ovarian tumors. These menstrual irregularities may be either due to complete destructions of functioning ovarian tissues or low general condition of the patients. In these series 98 (65%) belonged to low socio-economic group.

**Symptomatology:** All the 149 cases had varying symptoms, abdominal swelling in 60, pain in abdomen in 74, urinary symptoms in 10, fever in 4, haematuria in 2, vaginal bleeding in 8, white discharge in 3, anorexia in 17, dyspnoea in 8, black pigmentation in body-1.

**Signs:** Anaemia in 21, ascites in 37, palpable mass in 46, pleural effusion in 5, anal fistula in 1, node in xiphisternum 1.

**Associated Conditions:** Pregnancy in 1, cancer cervix in 3, carcinoma breast 1.

**Duration of Symptoms:** Less than 1 month in 11, 2-6 months in 62, 7-12 months in 40, more than 1 year in 36.

**Site:** In 24 (16%) cases the tumors were bilateral and in 78 (52%) cases it was only on the left side. Misra (1979) and Roychowdhury *et al* (1977) reported bilateral tumors in 36.4% and 12.8% cases respectively. Amongst 16 cases of secondary involvements, 8 were bilateral. The secondaries came from breast, stomach, colon and gallbladder.

**Secondaries in Different Regions:** In lungs 13, in left supraclavicular glands 8, in liver 8, in vaginal vault 9, in abdominal wall 6, in pouch of Douglas 62 and in inguinal glands 2.

**Treatment:** Laparotomy and biopsy in 32, ovariectomy in 33, panhysterectomy in 63, Chemotherapy alone in 14, biopsy, radiotherapy and chemotherapy in 3. Radiotherapy was also given in 32 cases after biopsy. 4 patients refused treatment.

**Deaths Following Operations:** Thirty-seven cases died following operations, 10 within 7 days, 15 within 7-15 days, 9 within 16-30 days, 3 within 1 to 3 months.

**Recurrence Following Treatments:** In 44, cases recurrence occurred, 19 within 6 months, 4 within 6-12 months, 8, 7, 1 and 1 within 1-2 years, 2-4 years, 5-10 years and after 10 years respectively.

*Site of Recurrence:* Distant 12, lungs 8, liver 2, other areas 2, local 36, pelvis 26, vault 10.

*Results of Initial Treatment:* Deaths following initial treatments 37, could not be traced after few visits 63, reported to be well 45, refused treatment 4.

*Duration of Longevity:* Up to 1 year 26, 1-2 years, 7, 2-3 years 5, 3 to 4 years 3, 4-5 years 1, 5-10 years 1 and more than 10 years 2.

*Histopathology:* Amongst these 149 cases, 4 refused biopsy and treatment and in other 3 cases reports were not available. Reports of other cases are given in Table III.

TABLE III  
Histological Diagnosis of Tumour

Dysgerminoma—9	Endometrial carcinoma—2
Mucinous cyst-adenocarcinoma—14	Granulosa cell carcinoma—9
Papilliferous cyst adenocarcinoma—24	Liposarcoma—1
Cystadenocarcinoma—5	Arrhenoblastoma—2
Anaplastic adenocarcinoma—9	Malignant teratoma—2
Papilliferous adenocarcinoma—15	Malignant dermoid—1
Clear cell adenocarcinoma—1	Brenner's tumor (malignant)—1
Adenocarcinoma—29	Mesonephroid carcinoma—2
	Krukenberg tumor—9
	Metastatic carcinoma—3
	Metastatic adenocarcinoma—4

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