CARCINOMA OF BODY OF UTERUS (A STUDY OF 124 CASES) EPIDEMIOLOGICAL ASPECT

by

DILIP KUMAR ROY,* M.B.B.S., D.G.O., F.R.C.O.G. (Lond.)

Carcinoma of body of uterus is not so infrequent disease although its frequency is much less than that of carcinoma of cervix amongst the Indian women. The incidence of this disease in Chittaranjan Cancer Hospital is about 2 per cent amongst all female genital cancer cases seen in this hospital. During the period of 1950 to 1970, only 193 cases of carcinoma of body of uterus were seen in this hospital compared to 9380 cases of carcinoma of cervix seen during the same period. Compared to Western countries where in some parts its ratio with that of cervix has often been found to be 1:2, in this hospital at present it is as high as 1:48.6. Bhose (1965) in his paper has nicely made a comparative study of incidence of carcinoma of body of uterus with that of cervix amongst the Indian authors and has found the ratio to be high. A comparative incidence of carcinoma of body of uterus with that of cervix amongst the Indian authors is given below (Table 1).

TABLE I

Comparative Incidence of Carcinoma of Body of Uterus and the Cervix

Author	Place	Years	Ratio
Reddy et al (1956)	Visakhapatnam	1945–1954	1:33.4
Gault (1958)	Vellore	1943-1958	1:41.0
Dass & Mookherjee (1961)	New Delhi	1956–1960	1:23.5
Devi & Prabavathy (1961)	Visakhapatnam	—	1:29.5
Mitra (1961)	Calcutta	1954-1958	1:33.3
Naidu (1961)	Hyderabad	1957–1959	1:13.5
Paymaster (1961)	Bombay	1941-1957	1:23.5
Roy Chaudhury (1963)	Calcutta	1960–1962	1:17.6
Bhose (1965)	Calcutta	1950-1957	1:32.4
Present series (1974)	Calcutta	1950-1970	1:48.6

Not many articles on this subject had been published in the Indian literature. With this view in mind epidemiological aspects of 124 cases of carcinoma of body of uterus attending the Chittaranjan Cancer Hospital during the period of 1950 to 1970 were studied. The rest 69 cases were omitted from this study as they did not attend any more after their first visit to this hospital.

Results

TABLE II

Age Distribution of Patients

20-29	30-39	40-49	50-59	60-69	Above 70
1	2	29	52	31	9

*Junior Visiting Surgeon, Chittaranjan Cancer Hospital, Calcutta.

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Table II Shows the age distribution of patients in this series.

The maximum number of cases were seen between the ages of 50 to 59. The oldest patient in this series was 74 and the youngest 27. The latter patient who already had 3 children, bled off and on following an abortion and on curettage adenocarcinoma was found. But unfortunately this patient refused to take any treatment inspite of our best efforts and went away against medical advice.

Parity

Table III shows the parity of the patients in this series.

TABLE III
Parity of Patients

0	1	2	3	4	5	6 & above
23	13	13	11	12	11	34

No record of parity could be obtained in 7 cases.

Twenty-three out of 124 patients were nulliparous (18.5 per cent) and the rest were parous. The highest parity noted in this series was 14. In Davis's series (1964) nulligravid patients represented 41.3 per cent and in Whetham and Bean's series (1972) 39 per cent compared to 18.5 per cent of the present series.

Ninety eight patients were in postmenopausal age group (79 per cent); 24 in premenopausal and menopausal age group (19 per cent); 2 in child bearing period. In Robert's series (1961), 27 per cent were in premenopausal age group compared to 19 per cent of the present series. Way (1954) reported that 54 per cent in his series continued to menstruate after the age group of 50 years, whereas in this series only 2 patients continued to menstruate after 50.

Symptoms

There were 3 outstanding symptoms—bleeding, discharge and pain as shown in Table IV.

TABLE IV
Presenting Symptoms

Symptoms	No. of cases	Percentage
Bleeding	117	94.3
Discharge	63	50.8
Pain	50	40.3
Miscellaneous	5	4.0

The commonest symptom was bleeding which varied from continued type to irregular one. Some of them complained of menorrhagia. Amongst the miscellaneous symptoms, one patient complained of dysuria and another of pruritus. One patient who had third degree prolapse of uterus, complained of something coming down per vaginam in addition to bleeding and discharge. Another patient who was suffering from heart disease, complained of dyspnoea. Most of the patients had more than one presenting symptom.

Associated Conditions

The associated conditions are tabulated in Table V.

TABLE V
Associated Conditions

Associated conditions	No. of cases	Per cent
Hypertension	16	13.0
Fibroids	14	11.3
Diabetes	5	4.0
Adiposity	4	3.2
Previous radiation	2	1.6
Heart disease	1	0.8
Prolapse of uterus	1	0.8
Carcinoma of breast	1	0.8

Hypertension was noted in 13 per cent of cases in this series compared to 35.6

per cent of Davis's series (1964). The co-incidental finding of fibroids was noted in 11.3 per cent of cases compared to 35.8 per cent of Whetham and Bean's (1972) series. Marked obesity was found in 3.2 per cent of cases compared to 50.6 per cent of Whetham and Bean's (1972) series and 51 per cent of Lee's series (1969). Way reported that 29 per cent of his series had frank diabetes mellitus and further 43 per cent showed a pre-diabetic type of glucose tolerance curve but in this series it was detected in only 4 per cent of cases. In Lees's series the incidence of diabetes was only 5 per cent and in Whetham and Bean's series 3 per cent of their patients were overt diabetes with an additional 2 per cent having elevated blood sugar. Two patients in this series who developed endometrial carcinoma had previous radiation for artificial menopause being given to one patient about 30 years ago and in another about 25 years ago. In this series one patient who developed carcinoma of corpus had radical mastectomy followed by external radiation for carcinoma of breast in this hospital 3 years ago. As stated earlier one patient who was aged 70 years and had third degree prolapse of uterus for a prolonged period, developed this disease later on.

Histopathology

The histopathology of these 124 cases is given below in Table VI.

TABLE VI
Histopathology

Histopathology	No. of cases	Percentage
Adenocarcinoma	100	80.7
Epidermoid	13	10.5
Anaplastic	8	6.4
Adenoma malignum	2	1.6
Adenoacanthoma	1	0.8

The most frequent pathological lesion was adenocarcinoma, in 5 of which endocervix was involved and isthmus in 3 cases. Out of 13 cases of epidermoid carcinoma, endocervix was involved in 2 cases and isthmus in 1 case. Amongst 8 cases of anaplastic carcinoma, endocervix and isthmus were found to be involved in 1 case each.

The involvement of other pelvic organs by carcinomatous process is being shown below in Table VII.

TABLE VII
Involvement of Other Pelvis Organs

	No. of cases
Myometrium	9
Endocervix	8
Isthmus	5
Ovaries	3
Fallopian tube	3
Bladder	1

In all 3 cases of ovarian involvement, both ovaries were found to be involved but in cases of tubal involvement, only one side was involved. Out of 9 cases where myometrium was invaded by cancerous process, ovaries were found to be involved in 2 cases and fallopian tub in 1 case.

Associated Gynaecological Lesions

The associated benign gynaecological lesions which were found in association with endometrial carcinoma are shown in Table VIII.

TABLE VIII
Associated Benign Gynaecological Lesions

Benign disease	No. of cases
Chronic cervicitis	31
Pseudomucinous cystadenoma of ovary	1
Adenomyosis of uterus	5
Atypical basal cell hyperplasia	1
Prolapse of uterus	1
Leucoplakia of vulva	1

All 5 cases of adenomyosis of uterus were associated with adenocarcinoma of body of uterus. The case where leukoplakia of vulva was found, biopsy from leukoplakic patch revealed metastatic adenocarcinoma.

Stage of Disease

These cases were tried to be classified according to International Federation of Gynaecology and Obstetrics and shown in Table IX. Staging was not possible in 41 cases and of these 34 were treated by radiotherapy. In those cases treated by radiotherapy, it is difficult to ascertain the conditions of fallopian tubes and ovaries and are being put in "Not Possible" group. The rest 7 cases did not turn up for treatment and could not be classified.

TABLE IX
Stage of Disease

I	II	III	IV	Not possible
61	10	5	7	41

Summary and Conclusions

1. 193 cases of carcinoma of body of uterus were seen during the period of 1950 to 1970 in Chittaranjan Cancer Hospital, thus making an incidence of about 2 per cent amongst all female genital cancer cases seen in this hospital. Ist ratio with that of carcinoma of cervix is as high as 1:48.6.

2. 124 cases of carcinoma of body of uterus were reviewed. The incidence of this disease in nulliparous women is 18.5 per cent.

3. Amongst the associated factors hypertension was noted in 13 per cent, fibroids in 11.3 per cent, diabetes in 4 per cent and obesity in 3.2 per cent of cases. Only 2 patients in this series continued to menstruate after the age of 50.

4. Adenocarcinoma was noted in 80.7 per cent of cases and epidermoid carcinoma in 10.5 per cent. Endocervix was found to be involved in 9 cases and isthmus in 5 cases. Bilateral involvement of ovaries were found in 3 cases and unilateral involvement of tubes in 3 cases. Myometrium was involved in 9 cases.

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