

PERSONAL SERIES OF MITRA'S OPERATION IN TREATMENT OF CARCINOMA OF CERVIX

by

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The pioneering work of the late Dr. Subodh Mitra under whom I had the privilege to work for a good number of years, has encouraged me greatly to take up his technique of operation for the management of cases of carcinoma of cervix. I, being one of his few associates, watched with great interest the evolution of his operation. Dr. Mitra while presenting his results of Schauta's operation in 1947 at the Royal Society of Medicine, met with severe criticism for not removing the lymph nodes. From 1948 onwards he started doing extraperitoneal lymphadenectomy along with radical vaginal hysterectomy in two stages. Ultimately, in 1952 he gained enough courage to do the two operations together along with the modification of tying the ovarian and uterine vessels while doing lymphadenectomy. This combined operation, popularly known here as "Mitra's Operation", has now been accepted all over the world as one of the standard procedures in the fight against this disease.

This is a survey of my own series of 88 cases of Mitra's operation done in Chittaranjan Cancer Hospital

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during the period of April 1963 to April 1969. Of these, 85 were epidermoid carcinomas of the cervix including 2 cases of carcinoma of the cervical stump and the rest were adenocarcinomas. In all these cases of adenocarcinoma of the cervix, the operated specimen of uterus revealed adenocarcinoma in endometrium on histological examination and in one of them in addition to it there was also metastatic adenocarcinoma in the ovary which was enlarged to the size of a cricket ball.

Analysis of 88 cases

Age by itself is not a barrier to surgery; 10 patients in this series were over 60, the eldest being 70 and the youngest 25. Five of them were nulliparous and the rest parous.

Stage of Growth

The stage of growth of these patients as assessed by clinical examination at the very outset is as follows:

Stage I	..	24 cases
Stage II	..	62 "
Stage III	..	2 "

The majority in this series were in Stage II. There were 2 cases in Stage III which were treated first by radium and external radiation. In both of them, the growth recurred within one year and were subsequently operated by Mitra's technique.

In Table 1, the different methods of treatment given to these patients are shown.

There were 2 cases of endometriosis and 4 cases of tubo-ovarian mass, but in all cases the operation was com-

TABLE I
Different methods of treatment given

Stage of disease	No. of cases	Operation only	Oper. plus Ext. radiation	Radium-Operation—Ext. radiation
I	24	9	15	—
II	62	13	46	3
III	2	—	—	2

Post-operative radiation was given in 15 cases in Stage I and 46 cases in Stage II. The previous policy was to give external radiation to those cases where metastases were detected in the lymph nodes. But now the policy has been changed and external radiation is given routinely to all cases in Stage II and in cases of Stage I with positive lymph nodes.

Three cases in Stage II were treated previously with pre-operative radium followed by surgery and external radiation.

Associated lesions

The associated lesions detected during operation are shown in Table 2.

TABLE II
Associated Lesions

Type of Lesions	No. of cases
Pyometra	6
Fibroid	1
Endometriosis	2
Tubo-ovarian mass	4
Ovarian tumour	1
Pregnancy	2
Double ureter	4
Hydroureter	2
Varicocele of vagina	1

pleted through the vaginal route. There were 2 cases of pregnancy, one of which was of 10 weeks' duration and the other was referred to us during puerperium, the pregnancy having been terminated by caesarean section about a month previously in another hospital.

Gland Involvement

In Table 3, the incidence of lymph node metastases is shown according to different clinical stages.

The incidence of lymph node metastases in Stage I and II is 20.8% and 30.6% per cent respectively which is slightly higher than that reported earlier (Roy, 1966). In Peel's series (1969) node involvement was positive in 15 per cent of Stage I and 44 per cent in Stage II.

Out of 25 cancer positive node cases, the hypogastric glands were involved in 20 cases, external iliac in 8, common iliac in 6, obturator in 5 and paraureteric in 1 case. Glands on one side were involved in 15 cases and on both sides in 10. Metastases were present in only one gland in 10 cases and more than one gland in 15 cases.

TABLE III
Incidence of Lymph Node Metastases

Stage of disease	No. of cases	No. of cancer positive glands	No. of cancer negative glands
I	24	5 (20.8%)	19 (79.2%)
II	62	19 (30.6%)	43 (69.4%)
III	2	1 (50.0%)	1 (50.0%)
Total	88	25 (28.4%)	63 (71.6%)

Operative and Post-operative Complications

During the course of operation, the anterior wall of the common iliac vein was injured in 3 cases and was tied. The bladder was injured in 2 cases: it was repaired and healed without any fistula formation. In one case the bladder was found to be involved with the growth and a portion of it had to be resected; healing occurred without any fistula formation. Ureters were not injured in any case in this series during the operation.

The complications which occurred during the post-operative period are tabulated in Table 4.

TABLE IV
Post-operative complications

Type of complications	No. of cases
Cystitis	19
Paralytic ileus	3
Wound infection	3
Pelvic abscess	2
Vesico-vaginal fistula	1
Recto-vaginal fistula	1
Pneumonia	1
Jaundice	1

The commonest complication in operation was cystitis due to the pulling catheter which was kept for 1 week. There was one case of vesico-vaginal fistula (1.1 per cent) which was repaired later

on. There was one case of recto-vaginal fistula (1.1 per cent) which healed spontaneously. There was not a single case of uretero-vaginal fistula in this series.

The incidence of vesical and rectal fistula in this series is slightly higher than that of Navratil which is 0.27 per cent (1965). Like this series there were not a single case of ureteric fistula in the large series of Mitra's 450 radical vaginal hysterectomies (1960), nor in Roy Chowdhury's series of 52 cases (1966).

Post-operative Mortality

There were 2 deaths within the first 24 hours in this series, the primary mortality being 2.2 per cent. One of them died due to pulmonary embolism and the other who was severely diabetic, succumbed due to cardiac arrest. The primary mortality in Mitra's series (1960) was 3.6 per cent and in Navratil series (1965) upto 30th post-operative day was only 0.8 per cent.

Five-Year Survival Rate

The efficiency of results of the operation becomes evident from the 5 year salvage rate. The material at hand is quite small. Only 22 cases had completed 5 years after treatment, the results of which are shown in Table 5.

TABLE V
Five year Survival Rate (1963 to 1964)

Stage of disease	No. of cases treated	No. of surviving 5 years	No. of cases lost sight of
I	8	8 (100%)	—
II	14	7 (50%)	2
Total	22	15 (68.2%)	2

It was sheer good luck that all 8 patients in Stage I survived five years after treatment whereas only 50 per cent in Stage II survived upto that time, the total salvage rate being 68.2 per cent. Unfortunately, 2 patients in this series could not be traced. In Mitra's series the five year salvage rate of Stage I and II were 65.9 per cent and 58.3 per cent respectively. In Peel's series the five year survival rate was 84.7 per cent in Stage I and 68.4 per cent in Stage II.

It had been shown by various workers that the prognosis in node positive cases is very much reduced compared to node negative ones. Results of node positive and node negative cases have been shown in Table 6.

50 per cent compared to 78.5 per cent in node negative ones. In Mitra's series there was 73.8 per cent five year cure rate in gland negative cases against 26 per cent in gland positive ones. In Peel's series the five year survival rate in node negative cases was 83 per cent compared to 64 per cent of node positive ones. My series is, of course, too small to be compared with their's.

Summary and Conclusions

(1) Eighty-eight cases of carcinoma of cervix including 2 cases of cervical stump and 2 cases associated with pregnancy were operated by Mitra's technique.

(2) In this series 28 per cent had metastases in lymph nodes.

TABLE VI
Results of Node Positive and Node Negative Cases

Stage of disease	Node Positive		Node Negative	
	No. of cases	No. of 5 years survival	No. of cases	No. of 5 years survival
I	2	2 (100.0%)	6	6 (100.0%)
II	6	2 (33.3%)	8	5 (62.5%)
Total	8	4 (50.0%)	14	11 (78.5%)

Two out of 8 cases in Stage I who had metastases in only one gland, survived for 5 years. The five year survival rate in node positive cases is

(3) There was 1 case of V.V.F. R.V.F. each but not a single uretero-vaginal fistula in this series.

(4) Only 22 cases had complete

years after treatment. Fifteen out of 22 cases in Stage I and II survived 5 years (68.2 per cent).

(5) Four out of 8 node positive cases survived 5 years (50 per cent) whereas 11 out of 14 node negative ones survived the same period (78.5 per cent).

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THE BOMBAY OBSTETRIC AND GYNAECOLOGICAL SOCIETY

The first Annual Conference of the Bombay Obstetric and Gynaecological Society will be held on Saturday, the 19th December 1970 and Sunday 20th December 1970 at the I.M.A. Building (Bombay Branch), Clarke Road, Bombay 34.

The Conference is divided in four Sessions. The subjects for two of them will be (a) Treatment of dysfunctional Uterine Bleeding and (b) Induction of Labour. The other two Sessions will be for free communications.

The last date for receiving the summaries of papers is 31st October 1970.