

## MITRA'S OPERATION FOR OPERABLE CARCINOMA OF THE CERVIX UTERI : A CRITICAL APPRAISAL

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### SUMMARY

The clinical events in two groups of patients with operable carcinoma cervix treated with Mitra's operation (Abdominal extraperitoneal bilateral pelvic lymphadenectomy and Radical vaginal hysterectomy) with or with adjuvant therapy were studied. Group A, the older group, comprised 354 patients and Group B, a more recent group, comprised 50 patients. Stage-II cases outnumbered Stage-I cases. One case of rectovaginal fistula and 1 case of incision hernia in one of the abdominal incision lines were noted postoperatively in Group B. In Group A, 12.40% of Stage-I cases and 24.42% of Stage-II cases were noted to have recurrent disease. Of the Stage-I cases, 73.72% and of the Stage-II cases, 54.84% were found to be well till 5 years or more; however, unfortunately, 14.40% of Group A patients and incomplete or no follow-up. In Group B, 14 patients came for follow-up only for 1 year or less. Of these, 35.71% had persistent disease when last seen. Nine patients in this groups could be followed for over 5 and under 7 years; all of them were when last seen.

### INTRODUCTION

Cancer of the cervix uteri is an important cause of morbidity and mortality among Indian women. Jussawala (1973) reported a prevalence rate of 25.1 per 100,000 females in Greater Bombay (1964-'67). In the Department of Gynaecological Oncology of our Institute (the Chittaranjan National

Cancer Institute, Calcutta, a specialist cancer referral centre), 1003 cases of carcinoma cervix were registered during the period from January, 1990 to March, 1991; this figure excludes 98 additional cases which were cases of carcinoma cervix operated outside. Because of the sheer number involved, a good operation for operable cervical carcinoma is required to be performed in large numbers every year in this country.

Here we present a critical appraisal of

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Mitra's operation (Abdominal extra-peritoneal bilateral pelvic lymphadenectomy and Radical vaginal hysterectomy).

#### MATERIAL AND METHODS

Two groups of patients were included in this study; all these patients had treatment of carcinoma cervix by Mitra's operation with or without adjuvant radiotherapy (except in one case where Mitra's operation was done and chemotherapy instituted). Group A consisted of 354 patients all of whom were registered between the years 1960 and 1978. Group B consisted of 50 patients who were all registered between the years 1982 and 1986. In Group A, 119 patients had Mitra's operation alone and 234 patients had Mitra's operation and postoperative radiotherapy (one of these 234 patients had pre-operative radiotherapy as well). One patient had Mitra's operation plus chemotherapy. In Group B, 18 patients had Mitra's operation alone and 32 had Mitra's operation plus postoperative radiotherapy (one of these 32 patients had pre-operative radiotherapy as well).

The clinical material pertaining to the patients and the pre-operative and postoperative events (for Mitra's operation) were studied. In the follow-up records evidence of persistence, recurrence and/or metastasis of the disease were looked for. In Group A, follow-up records were checked till 1983 with an endeavour to note the follow-up events till minimum of 5 years in each case.

The study was retrospective.

#### RESULTS

The age distribution of the patients in the 2 groups is shown in Table I. The maximum number of patients fell in the 31 to 40 years age-group.

It is interesting to note that some of these cases were associated with other conditions. For example, in Group A, there were 7 cases of genital prolapse, 2 cases of pregnancy and

1 case each of carcinoma rectum, carcinoma tonsil, primary carcinoma lung and carcinoma fallopian tube. In Group B, there were 2 cases of genital prolapse, 1 case of pregnancy and 1 case of pyometra. Group A included 3 cases of carcinoma of the cervical stump.

Stage-wise distribution of the carcinoma cervix cases is shown in Table II. Stage II cases outnumbered Stage I cases.

Of the 354 cases in Group A, 343 were squamous cell/epidermoid carcinoma and the remaining 11 were adenocarcinomas. In Group B, all the 50 cases were squamous cell/epidermoid carcinomas.

Table I

Age distribution of patients in Groups A and B

Age range Years)	Number of patients	
	Group A (n = 354)	Group B (n = 50)
21 to 30	39	2
31 to 40	122	17
41 to 50	109	13
51 to 60	73	13
61 to 70	11	4
71 to 80	0	1

Table II

Stage-wise distribution of the carcinoma cervix cases

Stage	Number of patients	
	Group A (n = 354)	Group B (n = 50)
I	137	24
II	217	26

Table III

## Histopathological status of pelvic lymph nodes removed at Mitra's operation

Pelvic lymph node status (histopathological)	Group A		Group B	
	Stage I (n = 137)	Stage II (n = 127)	Stage I (n = 24)	Stage II (n = 26)
Number of cases with positive lymph nodes (malignancy)	28	66	7	10
Percentage of node positivity	20.44%	30.41%	29.17%	38.46%

The ureter was damaged in 2 cases in Group A (n = 354). In Group B (n = 50), the urinary bladder was injured in 1 case; it was repaired and recovery was uneventful. In another Group B case the rectum was injured during the operation and a rectovaginal fistula (RVF) resulted. One patient in Group B developed an incisional hernia in the right sided abdominal scar.

The histopathological status of the pelvic lymph nodes removed at Mitra's operation is shown in Table III.

The length of the postoperative stay in hospital was not found to be a reliable indicator of the safety of the operation as the stay was often prolonged because the patient sometimes had to be kept in for radiotherapy.

Of the 137 Stage I cervical carcinoma cases in Group A, 101 (73.72%) were well till 5 years or more, 17 (12.40%) had recurrence, 1 has recurrence and metastasis, 1 had metastasis alone and 4 died during the follow-up period. A further 15 (10.95%) patients in this category had incomplete or no follow-up. Of the 217 Stage II cervical carcinoma cases in this group, 119 (54.84%) were well till 5 years or more, 53 (24.42%) had recurrence, 2 had recurrence with metastasis, 4 had metastasis alone and 10 died during the follow-up period. A further 36

(16.59%) patients in this category had incomplete or no follow-up.

In Group B, 14 patients came for follow-up only for 1 year or less. Of these, 9 (64.29%) patients were free of disease (however 1 had an RVF) and 5 (35.71%) had persistent disease when last seen. Twenty four of Group B patients came for follow-up for periods ranging from 1 to 5 years. Of these, 18 (75%) were disease-free when last seen, 2 (8.33%) had recurrent disease and 4 (16.67%) had metastasis. Nine patients in



Fig. 1 : Showing the left external iliac chain of lymph nodes being pulled away with the dissecting forceps. The external iliac vessels are lying adjacent to the chain.



Fig. 2 : Showing the obturator lymph nodes being dissected out in the left obturator fossa. The obturator nerve is seen passing in the lowermost part of the field. The external iliac vessels have been gently retracted laterally.



Fig. 3 : Showing the left uterine vessels being doubly ligated before being cut. The ureter is seen passing below the vessels. The external iliac vessels are seen prominently passing across the field of the operation. The field of the operation is entirely extraperitoneal.

Group B could be followed up for over 5 and under 7 years. All these 9 patients were found to be disease-free when last seen.

#### DISCUSSION

Mitra's operation for operable carcinoma cervix is widely practised in our institute and

has been found to give good results. During the period from January, 1990 to March 1991 (15 months), 31 such operations were performed.

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The Wertheim operation of radical abdominal hysterectomy allows excision of pelvic lymph glands and a wide dissection of pelvic cellular tissue. However, Schauta's radical vaginal hysterectomy has a low primary mortality, the five year absolute cure rate figures have been reported as 97.3% for Stage I a (Kovacic et al, 1976), 83% for Stage I and 51.7% for Stage II (Navratil, 1963).

The occurrence of urinary fistula is a recognized complication of radical abdominal hysterectomy. In a large Mayo Clinic series, the urinary fistula rate was 4.8% (Webb and Symmonds, 1979). The merits of Mitra's operation include the fact that the ureter is not extensively dissected (minimizing ureteric complications). The pelvic lymph nodes are removed abdominally (extraperitoneally), allowing good anatomical exposure and dissection. The extraperitoneal field of operation for the removal of pelvic lymph nodes is usually limited to the area covered externally by the common iliac and external iliac arteries and medially by the internal iliac artery. Above it is bounded by the ureter crossing the common iliac artery from the lateral to the medial side. Below its boundaries are the obturator fossa which is transversed by the obturator nerve and blood vessels as well as by a network of veins which ultimately drain into the internal and external iliac vein (Mitra, 1960). Figures 1 and 2 show some of the steps in the extraperitoneal pelvic lymph node dissection. The operation is particularly

suited for obese patients where laparotomy and pelvic lymph node dissection may be mechanically difficult. The uterine (Fig. 3) and ovarian vessels are tied extraperitoneally while doing the abdominal part; this makes the vaginal part easier. The incidence of paralytic ileus is less after Mitra's operation as the pelvic lymph node removal is done extraperitoneally. Bladder complications are also less as the pelvic floor is repaired from below and this prevents the bladder from sagging down. Proper case selection is, of course, very important and this will often determine the success of the operation. It is hoped that more and more gynaecological surgeons will take up this operation and evaluate the results.

Roy (1984) reported his experience with 250 cases of Mitra's operation which he had performed from April, 1963 to June, 1981 at the Chittaranjan Cancer Hospital, Calcutta, and also in private clinic. He found a primary mortality of 0.8%. Four cases of vesicovaginal fistula and 2 cases of RVF were encountered in his series. The five year survival rate in Stage I was 81.1% and 56.4% in Stage II. In a previous report, Roy (1977) reported a primary mortality of 1.3% and a five year survival rate of 78.2% in Stage I, 50% in Stage II and 50% in Stage III.

In the present study, in Group A, 73.72% of Stage I carcinoma cervix cases and 54.84% of Stage II carcinoma cervix cases were found to be well till 5 years or more after treatment. These figures must be seen in the light of the fact that 51 (15.40%) of the 354 Group A patients had incomplete or no follow-up. Hence a definite five years survival rate can not be computed.

Meticulous follow-up in these cases is very important. The lay public must be made aware of the dangers and chances of recurrence of cancer so that follow-up rates may be improved.

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