"MITRA OPERATION" FOR CANCER OF THE CERVIX

by

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Introduction

Mitra Operation, i.e. Radical Vaginal Hysterectomy with Extraperitoneal bilateral Pelvic Lymphadenectomy has already established its place by virtue of its merit in the surgical treatment of carcinoma of the cervix. It is recognised all over the world as an ideal operation for stage I and stage II carcinoma of the cervix.

This is a pilot survey of 52 cases of carcinoma of the cervix of various stages treated by the Mitra technique.

History of the Operation

Late Dr. Subodh Mitra first started Schauta's operation in 1925 and continued for a quarter of a century with good results—(Mitra, 1951). He met with severe criticism when he presented his results of Schauta's operation at the Royal Society of Medicine in 1947 (Mitra, 1955). The criticism that he had to face was that in Schauta's operation pelvic lymph nodes were ignored. Then he started doing radical vaginal hysterectomy (Schauta's operation) in one sitting followed 2 weeks after by extraperitoneal bilateral pelvic lymphadenectomy. Since 1952 he combined the two operations in one sitting (Mitra, 1957, 1959). The new operation starts with the extraperitoneal dissection of pelvic lymph nodes, ligation of ovarian and uterine vessels and partial mobilisation of parametria and finally ends with the radical vaginal hysterectomy with massive removal of parametria and vaginal cuff. The new operation designed by him is named as "Mitra Operation" and a monogram was published by him as "Mitra Operation for Cancer of the Cervix" (1960).

Analysis of 52 personal cases

An analysis of 52 personal cases of cancer of the cervix is enumerated in Tables I to IV, treated by Mitra operation from January, 1962 to June, 1965 in the Eden Hospital, Medical College, Calcutta. Post-operative deep x-ray therapy was administered in those cases only where pelvic lymph nodes were positive.

TABLE 1

The Clinical Staging

	No. of cases
Stage I	11 (21.1%)
Stage II	36 (69.3%)
Stage III	5 (9.6%)
Stage IV	nil

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"Paper read at the 13th All-India Obstetric & Gynaecological Congress held at Patna in January 1966".

TABLE II
The Associated Lesions

	No. of cases
Prolapse uterus ..	7
Pyometra	4
Fibromyoma of uterus ..	3
Haematometra	1
Pregnancy .. .. .. (one upto 12 weeks; another 8 weeks pregnancy in the stage of incomplete abortion)	2
Endometriosis	3
Genital tuberculosis ..	1
Tubo-ovarian mass	4
Chocolate cyst of ovary ..	2
Gall stones	1
Double ureter (left side) ..	1
Absence of kidney and ureter (right side) ..	1

TABLE III
The Lymph-node Metastases

	No. of cases
Negative	42
Positive	10
Obturator group	6
External iliac group ..	3
Hypogastric group ..	1

As none of these patients has crossed the five years' limit, 5-year survival rate could not be determined.

Discussion

There are obvious scientific reasons for which this operation is ideally suited for cases of carcinoma of the cervix particularly in our patients

TABLE IV
The cases developing recurrence or dying afterwards

	No. of cases	Time of recurrence
RECURRENCE AND DEATH		
Recurrence in the vagina (treated by radiotherapy)	2	14 and 18 months after surgery — Patients are still alive.
Death: Immediate post-operative mortality	Nil	
Recurrence in the bladder (treated by anterior exenteration operation)	1	6 months after surgery— Patient died 2 months after exenteration operation.
Recurrence in the rectum (treated with injection Endoxan 200 mg. intramuscularly for 7 days: second such course was administered after a gap of 7 days	1	10 months after surgery— Patient died within 3 months of recurrence.
Pulmonary embolism (patient died 18 months after operation).	1	Emergency admission
Ureamia (patient had recurrence in the pelvic cellular tissue followed by hydroureter and hydronephrosis) (died 32 months after operation)	1	„

where malnutrition, hypo-proteinaemia and anaemia are so common. I was attracted to the vaginal route instead of the abdominal route due to the following reasons:

1. The primary mortality rate is much less in the vaginal technique. In the present series, there is no primary mortality so far out of 52 cases operated by Mitra technique.

2. Short statured, obese patients can be better tackled by the vaginal rather than the abdominal route.

3. Poor surgical risk patients are better operated by this technique.

4. Hypertension, renal or heart disease, pregnancy up to 12 weeks, previous gynaecological operations, presence of ureteral abnormalities e.g. double ureters on one side are not contra-indications to this operation. For these reasons the operability rate of the vaginal operation must be greater than that of the abdominal approach as is obvious from the Tables V and VI.

TABLE V

Operative rate, primary mortality and 5 year cure rate of different surgeons

	Surgeons	No. of cases	Operability rate	Primary mortality rate	5 year survival rate
Pre-Wertheim Era	Freund (1878) (abdominal)	—	—	72%	—
	Czerny (1882) (vaginal)			26%	
Wertheim & Schauta Era	Wertheim (1902) (abdominal)	500	50%	18.6%	42%
	Schauta (1908) (vaginal)	698	51.3%	2.3% (in 1910 only 1 death in 50 cases)	30.7%
Post-Wertheim & Schauta Era	Victor Bonney (1935) (abdominal)	500	63%	14%	40%
	Stoeckel (1931) (vaginal)	1200	76.6%	4.9%	50%
	Read (1948) (abdominal)	150	14%	8.3%	44.4%
Recent Era	Meigs (1964) (abdominal)	200	17%	3.8%	42.2%
	Mitra (1960) (vaginal)	500	37%	3.6% (in last 105 cases — no death)	55.7%

TABLE VI

Fistula rate in different types of operation for carcinoma of the cervix

Surgeon	Uretero-vaginal fistula (Per cent)	Vesico-vaginal fistula (Per cent)	Recto-vaginal fistula (Per cent)
Stoeckel (1928) (vaginal)	2.0	3.5	1.6
Meigs (1954) (abdominal)	7.0	2.0	—
Mitra (1960) (vaginal)	Nil Injury — Nil	0.9 Injury — 1.8	Nil Injury — 1.38
Present author (1965) (vaginal)	Nil Injury — Nil	Nil Injury — 2.2	Nil Injury — Nil

5. There is no question of burst abdomen and incisional hernia in vaginal technique. Post-operative shock, distension, peritonitis etc. are much more common in abdominal radical operation than in vaginal radical operation.

6. The frequency of bladder, ureteric and rectal injury with secondary fistulae, especially uretero-vaginal fistulae, are negligible in the vaginal operation as is obvious from Table VI. Due to rehabilitation of the bladder after extensive removal of vagina in Mitra operation, post-operative bladder troubles are minimal.

7. Greater amount of parametrial, para-vaginal and para-cervical tissue can be removed by vaginal radical method. Almost whole of the vagina can be removed due to which local recurrence in the vagina after this operation is much less.

8. Genital prolapse with carcinoma of the cervix, cervical stump carcinoma and Stage III (vagina) cancer cervix can be electively operated by the Mitra technique. In fact my first "Mitra Operation" was a case of stump carcinoma following subtotal hysterectomy done for fibromyoma of uterus about 9 years back.

The objections put forward against "Mitra Operation" are:

(i) Three cuts are made — two for extraperitoneal pelvic lymphadenectomy and one for radical vaginal hysterectomy requiring more time. But this should not be a genuine objection to such a radical operation. In spite of two abdominal incisions made for extraperitoneal lymphadenectomy the incidence of post-operative abdominal complications and incisional hernia is minimal. Longer duration of operation should not be a great handicap, particularly with modern anaesthesia, in radical surgery where precision of work is more important than rapidity.

(ii) Second objection to this new technique is that in spite of two abdominal incisions for extraperitoneal lymphadenectomy, exploration of the abdominal cavity is not possible. As opposed to that it may be mentioned that out of 450 radical vaginal hysterectomies done by Mitra (1960) tubo-

ovarian masses were present in 18 cases, endometriosis in 5, uterine fibromyoma in 7, pyometra in 13 and uterine pregnancy in 4. Table II shows the list of associated lesions that were tackled by Mitra operation in the present series.

Conclusion

In spite of these advantages and its satisfying results the vaginal route is still not so popular as the abdominal one excepting in the continental countries. I hope more and more enthusiastic surgeons will come forward and take up this operation of "Mitra Technique" for the surgical treatment of cancer of the cervix.

Summary

1. Fiftytwo cases of cancer of the cervix at various stages treated by Mitra operation are analysed.

2. Merits and demerits of vaginal radical versus abdominal radical surgery in the treatment of cancer of the cervix are enumerated.

3. A plea has been made to take up Mitra operation in the surgical treatment of cancer of the cervix all over the world.

Acknowledgement

I am grateful to Dr. K. C. Sarbadhikari, M.B.B.S., F.R.C.S., J.P., Principal and Superintendent, Medical College and Hospitals, Calcutta, for kindly allowing me to use the hospital records. I must thank Dr. Saroj Chopra, M.B.B.S., D.G.O. (Cal.), my assistant who has helped me by keeping the case records with utmost care.

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