

CARCINOMA OF CERVICAL STUMP

(A STUDY OF 22 CASES)

by

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

Carcinoma of the cervical stump is a preventable disease. As most of the gynaecological surgeons are at present doing many more complete hysterectomies than supravaginal ones, the incidence of carcinoma of the cervical stump is gradually declining and a day may come when this disease may completely vanish. Of course, there will be a few rare circumstances when surgeons may have to face extensive adhesions either due to endometriosis or pelvic inflammatory disease and may have to opt for supravaginal hysterectomy, but before doing so it would be advisable to eliminate malignancy of the cervix by routine cytological and histological examinations if the surgeons can anticipate such conditions beforehand.

In the Chittaranjan Cancer Hospital it is rather difficult to estimate the incidence of carcinoma developing in a cervical stump as benign lesions are rarely being treated here. However, from the available literature, it could be seen that figures vary

from 0.28 per cent of Fahndrich to 2.0 per cent of Lahey.

The planning of treatment of carcinoma of the cervical stump is notoriously difficult. The difficulties of surgical procedures for such conditions and the complications which may arise following radiation therapy are well known. With this in mind the cases of carcinoma of the cervical stump attending the Chittaranjan Cancer Hospital during the period of 1950 to 1967 are studied to evaluate the results.

Material and Methods

During the period of 1950 to 1967, a total of 7933 cases of carcinoma of the cervix were seen at the Chittaranjan Cancer Hospital. Of these, there were only 22 cases of carcinoma of the cervical stump, an incidence of 0.27 per cent. The incidence of carcinoma of the cervical stump in relation to all cervical cancers in this series is much less than that of Decker *et al* (1957) and Hahn (1956), the incidence in their series being more than 6 per cent. In analysing the frequency of this disease, Graham *et al* (1962) had found that it varies from 0.5 to 2.1 per cent in England and Denmark, while in U.S.A. the range is from 3.5 to 8.9 per cent.

Most of the authors have divided

*Junior Visiting Surgeon, Chittaranjan Cancer Hospital, Calcutta.

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the stump carcinoma into two categories: "true" and "coincident". Coincident cases are those in which the diagnosis of malignancy is made within an arbitrary time of 2 years from the time of supravaginal hysterectomy. True cases are those in which the malignant lesion makes its appearance after this arbitrary time limit of 2 years and is presumed to have developed after the operation. Of the 22 patients in this series, 21 fall into the category of the true group and only 1 in the coincident group. The coincident case was detected within 4 months after a supravaginal hysterectomy done in East Pakistan.

Age distribution

The age distribution of 22 patients in this series at the time of diagnosis is shown in Table I.

TABLE 1
Age distribution

Age	No. of cases	Per cent
30-39	2	9.1
40-49	10	45.5
50-59	7	31.8
60-69	3	13.6
Total	22	100.0

The majority of patients were between 40 to 59 years of age, which is also the observation of Hahn and Decker *et al.* The youngest patient was 32 years and the oldest 66 years of age.

The average age incidence is 49 years, which is slightly higher than the corresponding age of cervical carcinoma of the intact uterus in this hospital (45.6 years).

Parity

Of 22 patients, 21 were parous and only 1 was nulliparous. In Redman's (1952), Decker's *et al.*, and Hahn's series, 22 per cent of the patients were nulliparous, but in this series only 4.5 per cent were nulliparous.

Symptomatology

The symptoms of these patients have been analysed in Table II. They follow the pattern of symptoms of any cervical carcinoma. Almost all patients complained of bleeding and the next predominant symptom was vaginal discharge.

TABLE 2
Symptoms in carcinoma of cervical stump

Chief complaint	Frequency
Abnormal bleeding	21
Vaginal discharge	12
Abdominal pain	8
Dysuria	1

Stage of disease

The stage of disease has been analysed in Table 3.

The coincident case was in stage IV with involvement of bladder. Of true cases, the incidence of stage I and II was about 24 per cent (5 out of 21) and that of stage III 76 per cent (16 out of 21 cases). In Hahn's series there were about an equal number of patients in each of the international groupings.

The distribution of cases in Stages I and II is slightly favourable in the stump group as compared to 19.6 per cent in those with intact uterus (Roy, 1968). This is also the observation of Graham *et al* (1962).

TABLE 3
Stage of disease in carcinoma of cervical stump

Stage	Number	Per cent
I	2	9.0
II	3	13.7
III	16	72.8
IV	1*	4.5
Total	22	100.0

* In coincident group.

Histology

Of 22 cases, 20 had epidermoid carcinoma. There were only 2 cases of adenocarcinoma, which were in the true group.

Incidentally, it may be mentioned that the incidence of adenocarcinoma is fairly high amongst the cases of stump carcinoma (9 per cent) as compared to the incidence of 1.4 per cent of all cervical cancers in this hospital (Roy, 1966). This is also the observation of other workers.

The interval between supravaginal hysterectomy and diagnosis of carcinoma of cervical stump—

Table 4 shows the interval in years between supravaginal hysterectomy and diagnosis of cases of carcinoma of the cervical stump in the true group.

TABLE 4
Interval in years between hysterectomy and diagnosis of cervical stump

2-5 yrs.	6-10 yrs.	11-15 yrs.	16-20 yrs.	Above 20 yrs.
8	7	3	Nil	3

As mentioned earlier the coincident case was diagnosed within 4 months of the supravaginal hysterectomy. This case was operated in East

Pakistan and the indication for hysterectomy was not available.

Reasons for supravaginal hysterectomy

The reasons for doing supravaginal hysterectomy are shown in Table 5.

TABLE 5
Reasons for supravaginal hysterectomy (True group)

Reasons	No. of patients
Fibroids	3
Ectopic pregnancy	1
Dysfunctional uterine bleeding	5
Bilateral ovarian tumour (papilliferous)	1
Unknown	11
Total	21

It can be seen from the above table that no cause for supravaginal hysterectomy could be ascertained from 11 patients. There was 1 case in this series where supravaginal hysterectomy had been done for bilateral papilliferous cystadenoma, but when diagnosis of carcinoma of cervical stump was made about two and half years after the operation, it was found to be one of epidermoid carcinoma.

Treatment given

Out of 21 patients in the true group, 1 did not turn up for treatment. The different varieties of treatment given to the remaining 20 patients are shown in Table 6.

In 3 cases radical vaginal hysterectomy with bilateral extraperitoneal lymphadenectomy by Mitra's technique was done followed by a course of external radiation. In another case

TABLE 6
Therapy of carcinoma of cervical stump (True group)

Therapy	No. of cases
Surgical treatment and external radiation	3
Radium and external radiation ..	12
Radium therapy alone	1
External radiation alone	3
Radium followed by ant. exenteration	1
Total	20

who had 3 applications of radium, the growth instead of regressing, progressed and involved the whole of the vagina and bladder. Anterior exenteration operation was done but she died within 2 years of treatment. Out of 12 cases who had radium and external radiation, a small residual canal was found in 3 cases and a small intrauterine tandem was put inside in addition to vaginal radium. The rest were treated by vaginal radium followed by external radiation. The case, where radium alone was applied, did not turn up for further treatment. External radiation alone was given to 3 patients as in these cases the vagina was so short and narrow that it was difficult to introduce radium.

In the coincident case anterior exenteration was attempted but could not be done due to wide extension of the growth involving the iliac vessels and the lateral pelvic wall. She had a palliative course of external radiation.

Complications

In view of the fixed position of the adjacent viscera after a previous

operation, it was expected that there would be an increased incidence of fistula formation. But fortunately it was not so. There was 1 case of rectovaginal fistula in each of the true and coincident group. In the coincident case the fistula may probably be due to extension of the disease.

In the true group there was recurrence of growth after treatment in 33.3 per cent of cases, which is slightly higher than that of cervical carcinoma of the intact uterus (28 per cent) in this hospital (Roy, 1965).

Five Year Survival Rate

Any results of treatment in cases of carcinoma are judged by five year salvage rates. From 1950 to 1962, only 11 cases of the true group were treated and the results are shown in Table 7. Incidentally it may be mentioned here that the coincident case was seen after 1962.

TABLE 7
Five year survival rate (1950 to 1962)

Stage of disease	No. of cases	No. of survivors	Per cent	Lost sight of
I	—	—	—	—
II	3	1	33.3	1
III	8	3	37.5	1
IV	—	—	—	—
Total	11	4	36.4	2

The overall survival rate was 36.4 per cent. Unfortunately 2 patients could not be traced.

In Table 8, a list of survival rates of true cases of carcinoma of the cervical stump in other published series is given.

TABLE 8
Reported five year survival rate
(True cases)

Author	No. of cases	5 year survival (%)
Redman (1952)	43	37.0
Redman's collected series (1952)	167	25.0
Hahn (1956)	106	36.6
Decker et al. (1957)	84	60.7
Kelso (1957)	24*	33.3
Meiling (1957)	33*	36.3
Graham et al. (1962)	165	54.0
Present series (1968)	11	36.4

* Includes true and coincident cases.

In Table 9, a comparison of salvage rate of cases of carcinoma of the cervical stump with that of intact uterus is given. It is found that the results are somewhat better in the stump group. This is also the observation of Graham *et al.*

TABLE 9
Comparison of salvage rates of cases of carcinoma of cervical stump
with that of intact uterus

Stage	Carcinoma of cervix (1950 to 1961)			Carcinoma of cervical stump (1950 to 1962)		
	No. treated	No. of survivals	Per cent of survivals	No. treated	No. of survivals	Per cent of survivals
I	245	136	55.5	—	—	—
II	392	148	37.8	3	1	33.3
III	1553	248	16.0	8	3	37.5
IV	62	2	3.2	—	—	—
Total	2252	534	23.7	11	4	36.4

Conclusions

Carcinoma of the cervical stump is gradually becoming a rare disease. Gynaecologists of today, while appreciating that the cervical stump may in future be a potential site for malig-

nancy, are at present doing more complete hysterectomies. It will be wiser if cytological and histological examinations are done beforehand to rule out malignancies when surgeons are anticipating extensive adhesions during hysterectomy.

The management of such conditions always creates problems in view of anatomical deformities and the complications which may arise after treatment. However, complications after treatment in this series are not much and the salvage rate is in no way inferior to that of the intact uterus.

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