

## NON-EPIDERMOID TUMOURS OF UTERINE CERVIX

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The most frequent cancer of uterine cervix is of epidermoid in nature, however adenocarcinoma and other rare tumours are also seen. The frequency pattern of such tumours have been reported between 0.42-11.7% (Rutledge *et al*, 1968; Wildermuth *et al*, 1963; Hameed, 1968; Stage *et al*, 1974; Davis and Moon, 1975). Adenocarcinoma constitute the major group in these rare tumours or it may be a combination of adenosquamous or adenocystic and sarcomas of uterus (Noller *et al*, 1974; Ramzy *et al*, 1975; Abell and Ramirez, 1973).

Management of the tumours is a debatable subject. Some prefer surgery as the treatment of choice and others advocate radiotherapy as the best alternative to surgery.

This presentation deals with our experience with non-epidermoid tumours of uterine cervix as regards to their clinical presentation, treatment schedules and the short and long term follow-up of 59 patients seen in the Department of Radiotherapy and Radiation Medicine, Institute of Medical Sciences, Banaras Hindu Uni-

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versity, Varanasi from September, 1968 to December, 1979.

### Material and Methods

Fifty-nine patients of non-epidermoid cancer of uterine cervix were seen through September, 1968 to December, 1979, out of a total of 2830 cases of cancer cervix. Thus these tumours constitute only 2% of all cancer of cervix. Cases of extension of the disease from body of uterus have been excluded. The clinical presentation of the patients are shown in the following Tables:

Table 1 shows the age distribution of

TABLE I  
Age Distribution

Age in Years	No. Patients	Percentage
20-30 Years	3	5%
31-40 Years	16	27%
41-50 Years	23	39%
51-60 Years	8	13.5%
61-70 Years	7	12%
71-80 Years	2	3.5%
Total	59	100%

59 patients. The youngest patient was a young woman of 23 years who had adenocystic carcinoma, whereas the oldest one was a 80 years with well defferentiated adenocarcinoma.

Thirty-six patients had more than 5 children out of which 4 had cancer cervix associated with pregnancy. Twenty-one patients had less than 5 children and 2 patients were nulliparous, 1 had clear cell type and the other adenocarcinoma of cervix.

Thirty-seven patients were in the premenopausal age group and 22 in the menopausal state. Fifteen (15/22) had menopause of more than 5 years and 7 were within 5 years postmenopause.

The clinical evaluation was done according to F.I.G.O. system (1970). The clinical staging is shown in Table II majority of the patients were in stage III and II. Six patients were referred for radiotherapy in the post-operative period for local recurrence of the lesions. The histological types of tumours are shown

TABLE II  
Clinical Stage

Clinical Stage	No. of Cases	Percentage
Stage I	9	15.25%
Stage IIA	6	10.00%
Stage IIB	15	24.45%
Stage IIIA + B	22	37.80%
Stage IV	1	1.70%
Post Operative	6	10.80%
	59	100%

in Table III. The most common histologic type was adenocarcinoma, followed by basal adenocystic and clear cell type. Further analysis of age in respect to histologic types revealed that adenocarcinoma seen in the age group of 26-80 years (mean 48 years). Basal adenocystic carcinoma 23-52 years (mean 36.6 years). So the average age in adenocarcinoma group was little higher than the rest. Schillers mesonephroma was seen in 2 patients at 26 years and 35 years of age.

TABLE III  
Histological Type

Type of Histology	No. of patients	Percentage
Adenocarcinoma	35	59%
Basal Adenocytic	7	13%
Clear Cell	6	10%
Adenocanthoma	3	5%
Verrucous Carcinoma	3	5%
Sarcomas	3	5%
Schiller's Mesonephroma	2	3%
Total	59	100%

The treatment schedule that were followed in these patients are the same as that followed in epidermoid carcinoma of cervix. The treatment summary is given below:

#### Stage 1

##### *Intra-uterine and intra-vaginal*

Co-60 tube application was done twice at an interval of 7 days delivering a dose of 7000-7500 rads at point A, followed by additional irradiation to the parametrium by external Cobalt-60 teletherapy blocking the central zone of 5 cm wide. A tumour dose of 3000-3500 rads in 3 weeks was given.

#### Stage II A

Same as stage I.

#### Stage II B

Whole pelvic irradiation on Cobalt-60 teletherapy was done delivering a tumour dose of 5500-6000 rads in 5/6 weeks time, followed by a single intra-uterine and intravaginal Co-60 application delivering a dose of 2000-2500 rads at point A.

**Stage III (A & B)**

Same as Stage II B.

**Stage IV**

Palliative treatment depending on the type of complaints of the patient.

In post operative cases patients were treated on external Co-60 teletherapy. Fields included whole of pelvis and a tumour dose of 5000-6000 rads in 5/6 weeks were given followed by intravaginal avoids application delivering 2000-2500 rads to point A, by a single application.

Forty patients completed radiotherapy, rest of the patients either received incomplete treatment or no treatment at all.

The long term follow-up data are very poor. Table IV shows the 3 years over all survival of 30 patients only.

type and the other with adenocarcinoma. The immediate control of the disease was achieved 6/8 cases (75%).

Eighteen patient of stage II completed radiotherapy. Five (5/18) had residual disease at the end of treatment. Two patients developed secondaries in the lung during the follow-up period. Immediate control of the disease was achieved in 72% of cases.

In stage III, 14 patients completed treatment. In 4 cases there was residual disease in the immediate post treatment follow-up period. Thus a control of the local disease was achieved 11/14 (78%) of cases.

Four patients (IIA, IIB, III, IV stage) expired between 1-3 months after the first attendance in our department. Two had adenocarcinoma, 1 adenocytic basal cell and the other adenopapillary type. Of these 3 patients, 2 developed secondaries

TABLE IV  
Follow-up Data of 30 Treated Patients

Type of tumour	Eligible for follow up	Not treated	Not eligible	Follow up	Disease free	
					No. of Patients	%
Adenocarcinoma	27	8	19	10	10	52.6%
Clear Cell Type	4	1	3	1	1	33.0%
Adenocanthona	3	1	2	2	2	100%
Basal adenocytic	5	1	4	1	1	20.0%
Sarcomas	3	2	1	-	-	-
Schillers						
Mesonephroma	1	-	1	-	-	-
	43	13	30	14	14	

Table IV shows the 3 years survival according to histologic type. Further analysis of the Radiotherapy response as regards to clinical stage showed the following pattern.

In stage I, 8 patient completed radiotherapy. Two patients had local disease after radiotherapy, one with clear cell

in the lungs and 1 with bony secondaries during the follow-up period.

**Discussion**

Adenocarcinoma of cervix is an uncommon disease. Out of 1,412 cases of cancer cervix, 71 patients had adenocarcinoma

reported from the M. D. Anderson Hospital during the period 1948 to 1963 (Rutledge *et al*, 1968). Wildermouth and Melhorn (1963) reported 35 cases of adenocarcinoma of cervix out of 647 cancer cervix cases (5.7%) from Swedish Hospital for cancer of cervix. Baclesse and Colmeiro (1942) reviewed 420 cases of adenocarcinoma from world literature and found that 24% (101/420) of patients were disease free at 5 years following radiotherapy.

Adenocarcinoma of cervix usually arise in the endocervical region and spread in the myometrium is common than in the parametrium and regional lymphnodes. They remain localised for a longer time than squamous cell carcinoma and the treatment failure is mostly due to uncontrolled local disease. Adenocarcinoma of the cervix is usually develops in an elderly woman. The mean age in this series was 48 years and the range was 26 years to 80 years. Two patients were nulliparous and the rest had 5 or more pregnancies. Thirty-seven patients were in the premenopausal age and rest in the postmenopausal age.

Gusberg and Corscadan (1951) believe that it is of the same radiosensitivity as that of the squamous type and similar view has been put forward by Cuccia *et al* (1967), Rutledge *et al* (1968).

Rutledge *et al* (1968) reported 66% 5 year survival by radiotherapy alone and 84% with radiotherapy and surgery in patients with Stage I and II cases and the overall survival was 75%. Kagan *et al* (1973) reported a 5 year survival of 50% in stage I and II lesions.

In the present series, the immediate post radiation response is quite encouraging (more than 75%) in all histologic type and stages but the overall follow up is poor (Table IV). Considering the im-

mediate radiation response it can be concluded that adenocarcinoma of cervix is as radiosensitive as that of squamous type. It can be stressed that radiotherapy can be tried at the first chance in the management of these tumours and if there is failure, surgery may be added for the salvage.

#### Summary

Fifty-nine patients of non-epidermoid tumours of uterine cervix were seen between September, 1968 to December, 1979 out of a total of 2830 cases of cancer cervix. Thus, these tumours constitute only 2% of all cancers of cervix. Majority of the patients were in the age group of 40-50 years (66%). Approximately 77% of patients presented in Stage II and III. Thirty-seven patients were in the premenopausal and 22 in the postmenopausal age group. Only 2 patients were nulliparous.

Adenocarcinoma constituted 59% of cases, Basal adenocytic 13% followed by clear all type of tumours (10%). Three patients of each of adenocanthoma, Verucous Carcinoma and Sarcomas were seen and 2 belong to Schillers Mesonephroma.

Forty patients had complete treatment. All were managed exclusively by radiotherapy except 6 post operative cases. The treatment schedule was the same as used in epidermoid carcinomas of the cervix. The immediate radiation response is comparable to the result achieved in Squamous tumours. However, the long term survival is poor in our series. A 3 years survival according to histologic type shows 52.6% in adenocarcinoma, 100% in Adenocanthoma 33% in clear all type. It can be stressed that these rare tumour are radiosensitive and should be given the

first chance for the management but surgery should be kept in reserve in Radio-therapeutic failure cases only.

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