

**A STUDY OF EXCRETORY UROGRAMS IN CARCINOMA OF CERVIX
FROM THE GOVT. RSRM. LYING-IN HOSPITAL, MADRAS**

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SUMMARY

The importance of the role of excretory urogram in patients suffering from cancer cervix is established. It is essential to perform routine pre-treatment urograms, as it is a valuable aid in determining the prognosis. Similarly, it is essential in the follow-up of patients who have had treatment, as the occurrence of ureteral obstruction, again denotes an unfavourable prognosis.

Introduction

The value of urologic study in the management of cancer cervix has always been a fascinating subject and has been investigated by several authors for the past five decades. Because of the proximity of the renal tract to the cervix early involvement of the ureters and kidneys take place. Fortunately, it is easy to study the renal tract by means of excretory urograms. Though the lymphatic involvement takes place early in carcinoma of the cervix, it is very difficult to evaluate the extent of metastasis and even lymphangiography has not helped much. A study of the excretory urograms in a series of pretreatment cases for all stages is really enlightening, for it has been found that many cases belong-

ing to FIGO Classification stage I and II are really stage III.

In post treatment cases, where the excretory urogram was normal prior to treatment, the occurrence of changes in the IVP, after treatment, indicates a poor prognosis. In a few cases, here is improvement in the abnormal urogram. In post treatment cases the excretory urogram is very valuable in patients with recurrence in selecting the patients for pelvic exenteration. This study was undertaken to find out the involvement of the renal tract in pretreatment cases and in post treatment cases.

Material and Methods

In this study, 135 patients of cancer cervix (all stages) were subjected to an excretory urogram. One hundred patients belonged to the pretreatment group and 35 patients belonged to the post treatment group.

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In the post treatment group, 35 cases were chosen who had normal excretory urograms prior to treatment.

Results and Analysis

The incidence of abnormal urograms done in 100 patients prior to treatment in the various stages of cancer cervix was 29%. In the post treatment group consisting of 35 years the incidence was 11.4%.

From the above Table, it can be observed that the incidence of involvement of the urinary tract in cancer cervix increases with the staging of the disease.

The common site of obstruction was at the ureterovesical junction or at the distal third of the ureter.

Regarding advancement of staging after performing the excretory urogram, 9 cases of stage II advanced to Stage III and I case of stage II to Stage IV B. In the latter case, the excretory urogram

TABLE I
Incidence in Relation to Clinical Staging

Clinical stage	Total No. of patients	Patients with abnormal urograms	Percentage in our series	Literature
I	16	Nil	0.0 4.1	11.2
II	49	9	18.5 6.6	24.5
III	33	18	54.5 23.5	59.4
IV	2	2	100 53.2	66.6

TABLE II
Abnormal Urograms in the Pretreatment Group—100 Patients

Urinary Tract Changes	No. of patients	%	Literature
1. Ureteric Deviation	6	6	2.3
2. Unilateral Obstructive Uropathy	14	14	5.1-20.7
a. Unilateral hydro-uretero nephrosis with contralateral normal pelvicalyceal system and normal ureter	10	10	
b. Unilateral non-visualised kidney with contralateral normal pelvicalyceal system and normal ureter	4	4	
3. Bilateral Obstructive Uropathy	9	9	3.7-8.8
a. Unilateral hydro-uretero nephrosis with contralateral non-visualised kidney	8	8	
b. Bilateral hydro-uretero-nephrosis	1	1	
4. Bladder Compression by Extrinsic Mass	6	6	
a. By parametrial mass	4	4	
b. By pyometra	2	2	

TABLE III

Location of Ureteric Obstruction	No. of patients	Percentage
1. Uretero-vesical junction	9	39
2. Distal third of the ureter	13	56
3. Middle third of ureter	—	0
4. Proximal third of the ureter	1	0.04

TABLE IV
Advancement of Staging

Clinical stage	Advancement of staging	No. of cases	%
I	—	—	0
II to	III B	9	18.5
II to	IV B	1	2.04

showed displacement of the right ureter at the level of the 3rd lumbar vertebra by an oval mass and the left ureter was displaced 3 cm. away from the 4th and 5th lumbar vertebrae. There was mild hydro-ureter on the left side just above the site of deviation. The mass was suggestive of paraaortic nodes.

TABLE V

Stage	Van Dyke's Classification	RSRM study %
I	Normal pelvi-Calyceal system	71
II	Partial obstruction indicated by more than 5 mm dilatation of ureters and hydronephrosis	11
III	Total obstruction with non-visualised kidney	12
IV	Bladder compression by extrinsic mass	6

Analysis of Post-Treatment Urograms

In the evaluation of post-treatment urograms, 35 patients with normal pretreatment excretory urograms were chosen at random. In these 35 cases, the incidence of abnormal urograms was 11.4%. In 25 cases there was no evidence of recurrence or persistence, but 1 case had an abnormal urogram, consisting of bilateral hydro-uretero-nephrosis. In the 6 cases of recurrence, 2 had abnormal urograms, 1 had a unilateral non-visualized kidney with a normal contralateral kidney. The other case had unilateral hydro-uretero-nephrosis.

In 2 cases of persistent disease, 1 had an abnormal urogram consisting of a unilateral non-functioning kidney, the opposite side was normal. In the 2 cases who had an extended Wertheim's hysterectomy, there were no changes in the excretory urogram done 6-8 months after surgery.

Discussion

The incidence of abnormal urograms in our series of 135 cases of carcinoma of cervix, was 29% in the pretreatment group and 11.4% in the post treatment group. On reviewing the literature, various authors give varying incidence for the pre-treatment group.

TABLE VI

Stage	Groups	Total No. of patients	Patients with abnormal urogram	Percentage
I	Post-irradiation	25	1	4
II	Recurrence	6	2	33.3
III	Persistence	2	1	50
IV	Post-surgical	2	—	0

TABLE VII

Investigator	No. of patients	No. of patients with Urinary tract involvement	Incidence %
Aldridge and Mason (1950)	333	115	34.5
Dearing (1953)	327	97	29.6
Everette and Burns (1960)	365	118	32.3
Kottmeir (1964)	1402	268	19.1

TABLE VIII

Stage	Ruth Dearing %	Alridge %	Wagner and Spratt %	RSRM %
I	11.2	14.5	6.2	0
II	24.5	22	7.8	18.5
III	51.2	59	23.5	54.5
IV	66.6	—	53.2	100

The RSRM figures compare well with that of Dearing (1963) and Everette and Burns (1960).

The incidence of abnormal urograms rises with advancement of the clinical staging. Table VIII gives the incidence of abnormal urograms according to the stage. The RSRM figure is in agreement

with Dearing (1953) and Alridge (1972) in stage II and III.

Establishing a diagnosis of recurrent cervical cancer is often difficult, because diffuse in duration and fixation of pelvic structures can simulate a recurrence; besides when a recurrence occurs near the pelvic side wall it is not possible to take

