

## EXCRETORY UROGRAPHY BEFORE PROSTATECTOMY

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It is well known that simple systemic function tests are desirable before performing major surgical operations. As prostatic obstruction may result in changes in the upper urinary tract, a more detailed assessment of renal function is necessary prior to prostatectomy. Of the innumerable tests available, those using Para-amino-hippuric Acid or diodrast for measurement of renal blood flow and maximal tubular secretion and inulin or mannitol for assessing glomerular infiltration rates are too complicated and unnecessary. Estimations of non protein nitrogen and blood urea are standard clinical tests available in most hospitals. Intravenous pyelography, although not very sensitive, has become the single most important test in the investigation of renal tract diseases. It not only provides a visual demonstration of pathological lesions, but also gives an indication of renal function.

This paper is a review of the results of intravenous pyelographic examinations in 200 cases with enlargement of the prostate, most of which presented with acute retention of urine.

These cases were seen between the years 1960-1964 in the Unit of the Senior Surgeon, General Hospital, Singapore. All the urograms were done using the standard technique of injecting 20 c.c. of 60% urograffin intravenously and taking serial pictures of the urinary tract.

### SUMMARY AND DISCUSSION

Out of the 200 excretory urograms studied, not less than 33 (16.5%) showed some abnormality. Among these there is a high incidence of calculus lesions (11.0%). 80% of these stones were demonstrable in the ordinary scout films. Excretory urography was especially valuable in

The results are compared with a similar study by Bohne et al. (1961) of renal abnormalities in prostatic obstruction as follows:—

#### ABNORMAL LESIONS IN I.V.P.

	Bohne et al. (1961) 500 cases		Present Series (1965) 200 cases	
	Number	Percent	Number	Percent
Normal	461	92.2	167	83.5
Abnormal	39	7.8	33	16.5
Hydronephrosis	15	3	4	2
Unilateral			1	0.5
Bilateral			3	1.5
Calculi			22	11.0
Renal	12	2.4	3	1.5
Renal with non function			2	1
Ureteric			2	1
Multiple or bilateral			4	2
Vesical			9	4.5
Prostatic			2	1.0
Renal tumour deformity	10	2.0	3	1.5
Polycystic disease	1	0.2	0	0
Horseshoe kidney	1	0.2	0	0
Diverticula			3	1.5
Ureterocele			1	0.5

15 cases, three of which showed a space occupying deformity in the kidneys. Out of these, one was due to tumour and the others were cysts. In this series none of the lesions demonstrated in the pyelogram had priority of treatment over prostatectomy because these cases were seen in acute retention of urine. This is in contrast to the study by Bohne and others where out of 7.8% of urograms in which renal abnormalities were demonstrated, many of these merited precedence over prostatic treatment.

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#### REFERENCES

1. Bohne, A.W., Urwiller, R.D., & Pantos, T.J. (1961): "Routine Intravenous urograms prior to prostatectomy", *Journal of Urology* Vol. 86, No. 171.