

It is strongly recommended that panendoscopy should precede every prostatectomy. This may detect abnormalities in the urethra like stricture, polyps (not seen on IVP) and will diagnose bladder stone, diverticulae and bladder tumours. Excretory Urograms are notoriously unreliable as a means of detecting a tumour in the bladder.

IVP will still be indicated and must be done selectively in the following cases.

- 1) When KUB shows a radio-opaque shadow
- 2) When symptomatology points to renal pain, unexplained upper abdominal pain, haematuria or history of renal disease.
- 3) Panendoscopy reveals malignancy in the bladder.

By selectively utilizing IVP one minimises costs and uses available resources more intelligently and effectively.

REFERENCES:

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TABLE - 1

FINDINGS ON INTRAVENOUS UROGRAM

No. of cases	40
Normal IVP	25 (62.5%)
Abnormal IVP	15 (37.5%)
Types of Abnormalities	
Calculi Alone	8 (20%)
Calculi with other conditions	
Poorly excreting kidneys	2 (5.0%)
Space occupying lesion (Cyst)	1 (2.5%)
Hydronephrosis	
Bilateral	2 (5.0%)
Unilateral	1 (2.5%)
Space occupying lesion	1 (2.5%)

Amongst the 15 abnormal IVPs there were 8 cases of Calculi alone, 3 cases of calculi with other conditions, 3 cases of hydronephrosis, and 1 case of space occupying lesion (Table 1). Therefore, out of the 15 cases of abnormal IVP, there were altogether 11 cases of calculous disease, all identifiable on a KUB X-ray. Amongst the 4 abnormal non-calculous IVP, signs and symptoms were found to be indicative of the need for an IVP.

TABLE - II

NON CALCULOUS ABNORMAL IVP (4 CASES)

IVP FINDINGS	PRESENTATION
Poor Excreting Kidney	Prostatism & Renal Pain
Poor Excreting Kidney	Retention & Renal Pain
Space Occupying Lesion (Cyst)	Retention with Palpable Kidney
Space Occupying Lesion	Retention with Pain Hypochondrium

DISCUSSION

On reviewing the reported series of similar studies, it is noted that in the majority of the cases subjected to prostatectomy, excretory urography is normal (Table 3). There is a higher incidence of calculous disease in the present series (27%), bladder stone being the commonest. There was no incidence of bladder, renal or ureteric malignancy in the present series and only 1 case of ureteric malignancy in 601 patients reported by Bayer et al?

TABLE - III

FINDINGS ON INTRAVENOUS UROGRAM (COMPARATIVE)

	Marshall et al 1974	Bayer et al 1980	Present series 1983
No of Cases	180	601	40
Normal IVP*	145 (80.5%)	492 (81.9%)	25 (62.5%)
STONES			
Cases with Stones	1 (0.5%)	15 (2.5%)	11 (27%)
Bladder stone	0	5 (0.8%)	8 (20%)
Renal stone	1 (0.5%)	10 (1.7%)	1 (2.5%)
Bladder & Renal Stone	0	0	1 (2.5%)
Renal Stone & Prostatic Calculi	0	0	1 (2.5%)
Malignancy	0	1 (0.16%)	0
Renal Cyst	1 (0.5%)	30 (5%)	2 (5%)

* Mean % of Normal IVP 72.2 ± 9.5

Excretory urography in the majority of prostatectomy patients is found to be normal. It is an expensive investigation costing from Rs. 350/- to Rs. 450/-. The average saving would amount to Rs. 25,200/- to Rs. 32,400/- per 100 patients, when one considers that the mean percentage of normal IVP is about 72%. This cost does not include the cost of hospitalization for IVP which may be necessary, the delay in operation and the time taken off work which is hard to calculate. None of the IVP findings were significant enough to defer prostate surgery.

Calculous disease is responsible for the majority of abnormal IVPs (11 out of 15 cases) and it is suggested that KUB should be done in each case to screen the patient. This is much cheaper than doing an IVP.

The incidence of Renal Adenocarcinoma in asymptomatic patients is low. According to Bennigton and Beckwith (Beckwith)³ the rate is 22 per 100,000 men 70 years old while for Renal Pelvic and Ureteral Carcinoma it is 10 per 100,000 men. This is a remarkably low incidence. The small number found in actual studies, does not justify the expenses involved in doing an IVP for screening purposes.

Role of Excretory Urography in Prostatectomy:

It is really necessary ?

Zakiuddin G. Oonwala

Department of Surgery Dow Medical College & Civil Hospital Karachi.

ABSTRACT:

Excretory urography (IVP) is done as a preoperative investigation for prostatectomy. The results of IVP before prostatectomy in 40 cases are reviewed. It was found that only 15 cases had an abnormal IVP. Out of these 15 cases, 11 had radio-opaque calculi, easily seen on KUB film. Two had space occupying lesion (cyst) and none of the IVP findings were significant enough to defer prostatic surgery. Excretory Urography is an expensive test with a low yield of useful information in patients with prostatic symptoms and its routine use is not indicated.

Key words: Excretory Urography — Prostatectomy

INTRODUCTION:

In patients with prostatic symptoms, an IVP is done to assess the degree and presence of upper tract obstruction, bladder stones and diverticulae, to assess the amount of residual urine and approximate size of the prostate, to detect asymptomatic renal, ureteric or bladder malignancy, finally and, to be medico-legally safe.

In the vast majority of the patients with only obstructive symptoms or acute retention, excretory urography is an expensive test. Waiting for an IVP may delay admission and operation, prolong hospital stay, specially with recurrent non-availability of X-Ray films. Every

extra day during which patient must use a catheter adds to the risk of acquiring urinary infection. Also, there is a small risk of mortality and of severe reaction.

PATIENTS AND METHODS:

The case notes of 40 patients who underwent prostatectomy and had an IVP were reviewed. The criteria for inclusion of the cases were:—

1. Prostatectomy had been performed and IVP had been obtained prior to surgery.
2. A diagnosis of prostatic cancer had not been suggested before the operation.
3. Patients with mild obstructive symptoms, who had an IVP and did not undergo prostatectomy, were excluded.

The result was a group of patients typical of the majority of men undergoing prostatectomy.

RESULTS:

Our of the 40 excretory urograms, 25 were normal and 15 were abnormal. The age range was from 45 to 90 years, with a mean age of 67.5 years. There were 38 cases of benign prostatic hypertrophy, one of carcinoma prostate and one of bladder neck stenosis.

Twenty patients presented with acute retention; 18 with a symptom complex of frequency, urgency, nocturia, hesitancy and 2 with hematuria alone.

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Requests for reprints to Dr. Zakiuddin Oonwala, Asst. Prof. of Surgery Civil Hospital, Karachi.