



PROSPECTIVE STUDY OF EFFECTS OF TURP ON OUTCOME, MORBIDITY AND MORTALITY IN PATIENTS WITH NON DIALYSIS REQUIRING RENAL INSUFFICIENCY

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ABSTRACT

INTRODUCTION : Benign Prostate Hyperplasia is a common disease in adult men and its incidence is age related. Prevalence of BPH is approximately 25% in men aged 40 to 49 years, 50% in men aged 50 to 59 years and 80% in men aged 70 to 79 years. Renal failure and symptomatic benign prostatic hyperplasia (BPH) are two common health problems, they usually co-exist in 5.9–13.6% of the male population over 50 years of age. TURP remains the gold standard surgical procedure for treatment of these cases. However, patients in renal failure have an increased risk for complications after TURP compared with patients with normal renal function, so we wanted to study the treatment outcome and complications associated with its management. The purpose of this study was to determine the incidence of renal failure associated with BPH, effect of TURP in the morbidity and mortality of patients with renal failure.

MATERIALS AND METHODS: Prospective study from October 2017 to November 2019 Setting : Govt. Stanley Medical college and Hospital, Chennai, This is a clinical study of 80 cases of Benign prostatic hyperplasia in normal and in patients with non dialysis requiring renal failure who underwent

RESULTS: Once the serum creatinine values stabilized, the readings were recorded. Out of 40 patients who presented with elevated renal parameters, (patient with s.creatinine more than 1.3mg/dl) ten patients subsequently showed fall in serum creatinine below 1.3, hence were considered along with normal patients in group 1. Because of this, the subsequent serum creatinine values of rest of 30 patients stabilized at a mean of 1.7 with a standard deviation of 0.3. Interestingly patients whose serum creatinine which stabilized at a value of more than 1.3, some of them had coexistent diabetes, hypertension. This might be an explanation that these patients have developed preexisting renal disease which was worsened by their developing benign prostatic hyperplasia in group 1, out of 30 patients, three people had bleeding, one had retention, one perioperative death due to myocardial infarction was recorded, one patient had infection. In all the patients with bleeding as complication, blood transfusion was given. Whereas in group 2, two people had bleeding out of 40 patients studied. (8% compared to 20% in group 1).

CONCLUSION: The incidence of associated with benign prostatic hyperplasia in our study was about 12.5%.

KEYWORDS : Benign Prostate, Turp, Renal Failure

INTRODUCTION

Benign Prostate Hyperplasia is a common disease in adult men and its incidence is age related. Prevalence of BPH is approximately 25% in men aged 40 to 49 years, 50% in men aged 50 to 59 years and 80% in men aged 70 to 79 years. Renal failure and symptomatic benign prostatic hyperplasia (BPH) are two common health problems, they usually co-exist in 5.9–13.6% of the male population over 50 years of age. Actually going by the natural history of the disease and its progression with relation to Benign prostatic hyperplasia and its complications, it is noted that 13.6% of patients who presented to undergo Transurethral resection were in renal failure. It is usually not clear in this group of patients whether the reason for renal insufficiency is or is not Benign prostatic hyperplasia. However, it has been reported in some studies that the incidence of diabetes mellitus and hypertension is higher in patients with renal failure (RF) and lower urinary tract symptoms (LUTS) due to Benign prostatic hyperplasia. On the other hand, it is known that due to chronic urinary obstruction, BPH can lead to renal failure and even death occasionally.

TURP remains the gold standard surgical procedure for treatment of these cases. However, patients in renal failure have an increased risk for complications after TURP compared with patients with normal renal function, so we wanted to study the treatment outcome and complications associated with its management.

The purpose of this study was to determine the incidence of renal failure associated with BPH, effect of TURP in the morbidity and mortality of patients with renal failure.

MATERIALS AND METHODS

Prospective study from October 2017 to November 2019

SETTING :

Govt. Stanley Medical college and Hospital, Chennai, This is a clinical study of 80 cases of Benign prostatic hyperplasia in normal and in patients with non dialysis requiring renal failure who underwent surgical therapy-TURP.

PATIENT SELECTION INCLUSION CRITERIA

All patients with Non dialysis requiring Renal Dysfunction associated with Benign Enlargement of Prostate in the Department of Urology in our institute.

EXCLUSION CRITERIA

Histologically proven malignant prostatomegaly
Patients undergoing open prostatectomy

RESULTS

Patients with end stage renal disease requiring hemodialysis. In a total of 20 patients in Group 1, the youngest was 45 years and oldest was 83 years with a mean age of 64 years and standard deviation of 5.62 with the predominant age group 61-70 years.

PSS (majority had obstructive symptoms) with a mean score of 28.95 in Group 1 and 26.65 in Group 2, minimum and maximum score of 19 and 235 respectively with a standard deviation of 1.98. On analysis of IPSS score it was found that mean obstructive symptoms score was 15.3 as compared to the mean irritative symptoms score of 11.5.

Comparing the prostate size by ultrasound in both groups, the mean prostate volume was 46cc in group 1 with a standard deviation of 12.47 and 42 cc in group 2 with a standard deviation of 14.19.

Once the serum creatinine values stabilized, the readings

were recorded. Out of 40 patients who presented with elevated renal parameters, (patient with s.creatinine more than 1.3mg/dl) ten patients subsequently showed fall in serum creatinine below 1.3, hence were considered along with normal patients in group 1. Because of this, the subsequent serum creatinine values of rest of 30 patients stabilized at a mean of 1.7 with a standard deviation of 0.3. Interestingly patients whose serum creatinine which stabilized at a value of more than 1.3, some of them had coexistent diabetes, hypertension. This might be an explanation that these patients have developed preexisting renal disease which was worsened by their developing benign prostatic hyperplasia in group 1, out of 30 patients, three people had bleeding, one had retention, one perioperative death due to myocardial infarction was recorded, one patient had infection.

In all the patients with bleeding as complication, blood transfusion was given. Whereas in group 2, two people had bleeding out of 40 patients studied. (8% compared to 20% in group 1).

When we taken retention, three people have developed in group 2.

In case of infection, none had developed, compared to one patient in renal failure group. Death was not noted in group 2, whereas one recorded in group1 fall in serum creatinine between the time of presentation and post operative period, was significant. This implies that Transurethral resection has made a positive outcome in this group of patients.

S. creat	Mean	N	Std.Dev	SE	P value
Per op	1.7	40	0.237	0.067	P=0.046
6 weeks	1.5	40	0.271	0.057	

DISCUSSION

But, the European Association of Urology Guidelines on benign prostatic hyperplasia (2004) and the nephrology-focused NICE (National Institute for Health and Clinical Excellence) guidelines advocated measuring serum creatinine levels in all patients. This is relied on the fact, that bladder outlet obstruction due to benign prostatic enlargement can cause hydronephrosis and renal failure.23 Patients with benign prostatic enlargement and renal insufficiency have relatively higher postoperative complications (25% complication rate compared with 17% for patients without renal failure) and mortality goes up to sixfold than those with normal renal function.37,38, 45 Estimated glomerular filtration rate (eGFR) is a much more reliable measure to define chronic kidney disease and is better than simple serum creatinine measurement.

a cross-sectional survey in Spain of 2,000 randomly sampled men who were 50 years or older showed a 2.4% prevalence of self-reported renal failure related to a prostate condition (9% reported renal failure from any cause).63,9 Another study21 showed that men presenting for prostate surgery had a 7.7% prevalence of renal failure compared to a 3.7% prevalence in age matched men presenting for nonprostate surgery

CONCLUSION

The incidence of renal failure associated with benign prostatic hyperplasia in our study was about 12.5%. if intervention done early the renal failure can be reversed

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