

## ORIGINAL RESEARCH

# Assessment of complications of transurethral resection of the prostate (TURP)

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### ABSTRACT

**Background:** Benign prostatic hyperplasia (BPH) is the most common benign neoplasm in men. The present study was conducted to assess complications of transurethral resection of the prostate (TURP).

**Materials & Methods:** 128 cases underwent transurethral resection of the prostate (TURP). Patients with lower urinary tract symptoms were clinically diagnosed by per rectal digital examination and transrectal ultrasonography. They were evaluated at 3 months for complications.

**Results:** The age group 20-30 years had 14, 30-40 years had 46 and 40-50 years had 68 patients. Common complications were infection in 3 patients, bleeding in 15, injury of orifices in 5, urinary retention in 7, incontinence in 11, erectile dysfunction in 2 and recurrent BPH in 8 patients. The difference was significant ( $P < 0.05$ ).

**Conclusion:** Common complications were infection, bleeding, injury of orifices, urinary retention, incontinence, erectile dysfunction and recurrent BPH.

**Key words:** benign prostatic hyperplasia, Complications, transurethral resection of the prostate

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### INTRODUCTION

Most older men's biopsies reveal a histological alteration known as benign prostatic hyperplasia.<sup>1</sup> The word benign prostatic growth is used since this discovery may or may not be linked to an enlarged prostate gland. This growth might or might not be connected to symptoms related to the lower urinary tract. Benign prostatic enlargement may result in occlusion of the bladder outlet, which can cause problems with poor bladder emptying.<sup>2</sup> Benign prostatic hyperplasia (BPH) is the most common benign neoplasm in men. By the age of 60, half of all men have histological evidence of BPH and virtually all men have it by the age of 80.<sup>3</sup> During the past 20 years, this role has been increasingly challenged by the development of medical and, particularly, of minimally invasive treatment options, such as transurethral microwave thermotherapy (TUMT) or laser procedures.<sup>4</sup> As a result, and despite demographic changes towards advanced ageing, the numbers of TURP cases declined substantially in the United States and (to a much lesser extent) in Europe.

Transurethral resection of the prostate (TURP) remains the gold standard in the surgical care of benign prostatic hyperplasia (BPH) even with the advent of other procedures.<sup>5</sup> Over the past ten years, TURP has seen substantial technological advancements that have substantially impacted the frequency of intraoperative and postoperative problems.<sup>6</sup> The present study was conducted to assess complications of transurethral resection of the prostate (TURP).

### MATERIALS & METHODS

The present study consisted of 128 cases underwent transurethral resection of the prostate (TURP). All gave their written consent to participate in the study. Data such as name, age, etc. was recorded. Patients with lower urinary tract symptoms were clinically diagnosed by per rectal digital examination and transrectal ultrasonography was done for confirmation of cases of prostate enlargement. All patients were operated on under spinal Anesthesia. The urethral Foley catheter was removed from all patients 48 hours

after TURP and they were discharged home on the third postoperative day. They were evaluated at 3 months. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

**RESULTS**

**Table: I Distribution of patients**

Age group (years)	Number	P value
20-30	14	0.05
30-40	46	
40-50	68	

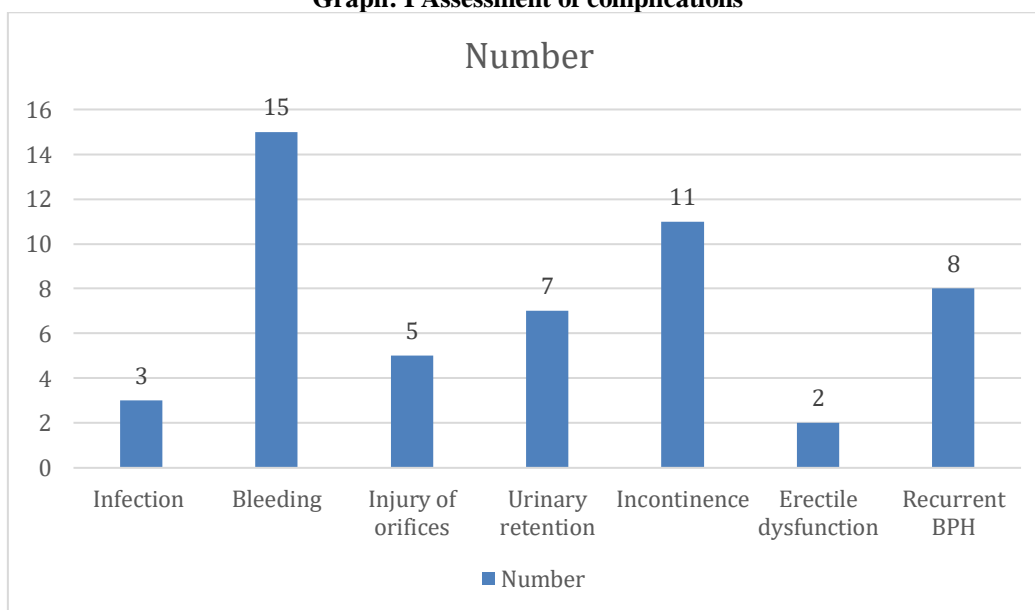
Table I shows that age group 20-30 years had 14, 30-40 years had 46 and 40-50 years had 68 patients.

**Table :II Assessment of complications**

Complications	Number	P value
Infection	3	0.04
Bleeding	15	
Injury of orifices	5	
Urinary retention	7	
Incontinence	11	
Erectile dysfunction	2	
Recurrent BPH	8	

Table II, graph I shows that common complications were infection in 3 patients, bleeding in 15, injury of orifices in 5, urinary retention in 7, incontinence in 11, erectile dysfunction in 2 and recurrent BPH in 8 patients. The difference was significant (P< 0.05).

**Graph: I Assessment of complications**



**DISCUSSION**

Typically, the prostate gland is around the size of a walnut. It is located just beneath the bladder and encircles the bladder's neck as well as the upper segment of the urethra, which is the bladder's urine-emptying tube. Seminal fluid production is the prostate's primary job. Sometimes the urethra narrows due to prostate gland enlargement, making it harder to pass pee.<sup>7</sup> Transurethral resection of the prostate (TURP) is a surgery to remove the inside part of the prostate gland. It is done in order to treat symptoms of an enlarged prostate. The prostate gland is an organ that surrounds the urinary urethra in men.<sup>8</sup> Due to the

prostate gland squeezing on the urethra and causing obstruction, your bladder may not be able to empty completely. Over a length of time, this build-up of urine can overstretch the bladder. Occasionally, this can prevent the kidneys from draining properly.<sup>9</sup> This can lead to kidney damage, which can have a large impact on your general health. Usually, however, the operation is needed because of the severity of the symptoms listed above and the impact on your day-to-day living.<sup>10,11</sup> The present study was conducted to assess complications of transurethral resection of the prostate (TURP). We found that the age group 20-30 years had 14, 30-40 years had 46 and 40-50 years had

68 patients. Doll et al<sup>12</sup> studied a total of 388 men undergoing transurethral resection of the prostate for benign prostatic hypertrophy. Self-administered questionnaires were completed preoperatively, and at 3, 6 and 12 months postoperatively. The surgeons completed 1 questionnaire shortly after surgery and another questionnaire 3, 6 or 12 months later. The mortality rate during the 12 months of follow-up was 2.8% (11 deaths). The surgeons reported perioperative complications in 14% of the patients and immediate postoperative complications, excluding urinary tract infections, in 17%. During the first 3 months postoperatively 38% of the patients reported incontinence and 25% had a urinary tract infection. Between 6 and 12 months postoperatively only 12% of the patients were troubled by either condition. The postoperative prevalence of impotence (24%) did not alter during follow-up and was similar to that reported preoperatively (22%). Of the patients, 74% reported feeling better and 78% experienced a decrease in the overall level of symptoms postoperatively. The improvement in symptom levels was greatest in those with the most severe preoperative symptoms, and obstructive symptoms were alleviated slightly more than irritative symptoms. We found that common complications were infection in 3 patients, bleeding in 15, injury of orifices in 5, urinary retention in 7, incontinence in 11, erectile dysfunction in 2 and recurrent BPH in 8 patients. Antunes et al<sup>13</sup> in their study found that all patients presented a significant decrease on mean International Prostate System Score (IPSS) (23 to 5.9), Quality of Life (QoL) (4.9 to 1.0) and nocturia (3.2 to 1.9). Variation in the IPSS was 16.7, 16.6 and 18.4 for patients from Group 1, 2 and 3 respectively (P = 0.504). Although the three groups presented a significant decrease in QoL, patients in Group 3 presented a significantly greater decrease when compared to Group 1. Variation in QoL was 3.1, 3.9 and 4.2 for patients from Group 1, 2 and 3 respectively (p = 0.046). There was no significant difference in nocturia variation according to the percent of resected tissue (p = 0.504). Median pre and postoperative PSA value was 3.7 and 1.9 ng/mL respectively. Patients from Group 1 did not show a significant variation (p = 0.694). Blood transfusions were not required in any group. The limitation of the study is the small sample size.

## CONCLUSION

Authors found that common complications were infection, bleeding, injury of orifices, urinary retention, incontinence, erectile dysfunction and recurrent BPH.

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