

## ORIGINAL RESEARCH

### **Surgical outcome and quality of life among patients of benign prostate hyperplasia**

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#### **ABSTRACT**

**Background:** BPH is characterised by the non-malignant overgrowth of prostatic tissue surrounding the urethra, ultimately constricting the urethral opening and giving rise to associated LUTS.

**Materials & Methods:** 86 patients with benign prostate hyperplasia with with LUTS were clinically diagnosed by per rectal digital examination. All underwent transrectal ultrasonography. IPSS score evaluation was done in the first month, the second month, the fourth month, and in the sixth month. The QOL score was calculated and recorded

**Results:** The mean basal QOL score was 4.6, mean prostate volume was 51.2ml, BMI was 26.2kg/m<sup>2</sup>, basal IPSS score was 19.4. The mean IPSS at 1 month was 5.8, at 2 months was 4.2, at 4 months was 3.5 and at 6 months was 2.7. The mean QOL at 1 month was 1.8, at 2 months was 1.4, at 4 months was 1.1 and at 6 months was 0.7. The difference was significant (P< 0.05).

**Conclusion:** There was improvement in quality of life in patients undergoing transurethral resection of the prostate for benign prostate hyperplasia.

**Key words:** Benign prostatic hyperplasia, quality of life, transurethral resection of the prostate

#### **INTRODUCTION**

BPH is characterised by the non-malignant overgrowth of prostatic tissue surrounding the urethra, ultimately constricting the urethral opening and giving rise to associated LUTS.<sup>1</sup>Surgery can be considered the 'gold standard' for patients with moderate to severe symptoms, and is often the measure against which new treatments are compared.<sup>2</sup>Surgery is currently performed in patients with complications which are considered major indications and in whom watchful waiting would be unethical.<sup>3</sup>Among the surgical line of treatment, Freyer's open transvesical prostatectomy and transurethral resection of the prostate (TURP) are the frequently performed surgeries for BPH. TURP is considered as the standard surgery for the BPH less than 70 to 80 g. Both surgical and medical line of treatment approaches has its own benefits and limitations.<sup>4</sup>

Benign prostate hyperplasia is reported to be associated with decreased quality of life by affecting daily activities and sleep patterns.<sup>5</sup> The most widely used QOL instrument in

patients with BPH is the IPSS QOL single question (IPSS QOL SQ). The IPSS instrument includes one specific question on quality of life.<sup>6</sup> The present study assessed surgical outcome and quality of life among patients of benign prostate hyperplasia.

## MATERIALS & METHODS

The present study comprised of 86 patients with benign prostate hyperplasia. All gave their written consent for the participation in the study. Ethical consideration was also taken into account.

Data such as name, age, etc. was recorded. Patients with LUTS were clinically diagnosed by per rectal digital examination. All underwent transrectal ultrasonography. All underwent TURP under anesthesia. IPSS score evaluation was done in the first month, the second month, the fourth month, and in the sixth month. The QOL score was calculated and recorded. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

## RESULTS

**Table I Baseline characteristics**

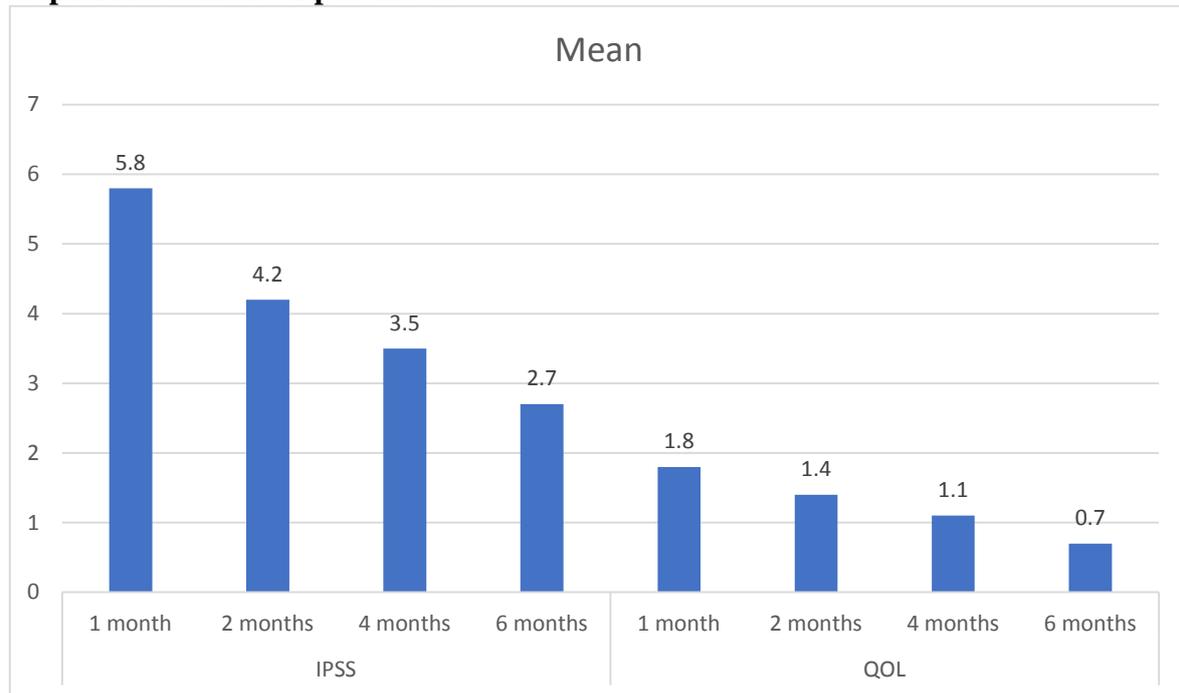
Parameters	Mean
Basal QOL score	4.6
Mean prostate volume (ml)	51.2
Body mass index(kg/m <sup>2</sup> )	26.2
Basal IPSS score	19.4

Table I shows that mean basal QOL score was 4.6, mean prostate volume was 51.2ml, BMI was 26.2kg/m<sup>2</sup>, basal IPSS score was 19.4

**Table II Assessment of parameters**

Parameters	Variables	Mean	P value
IPSS	1 month	5.8	0.05
	2 months	4.2	
	4 months	3.5	
	6 months	2.7	
QOL	1 month	1.8	0.02
	2 months	1.4	
	4 months	1.1	
	6 months	0.7	

Table II, graph I shows that mean IPSS at 1 month was 5.8, at 2 months was 4.2, at 4 months was 3.5 and at 6 months was 2.7. The mean QOL at 1 month was 1.8, at 2 months was 1.4, at 4 months was 1.1 and at 6 months was 0.7. The difference was significant (P< 0.05).

**Graph I Assessment of parameters**

## DISCUSSION

Benign prostatic hyperplasia refers to a histological change seen on biopsies of most elderly men.<sup>7</sup> This finding may or may not be associated with an enlarged prostate gland; hence the term benign prostatic growth is used. This growth may or may not be associated with lower urinary tract symptoms.<sup>8</sup> Benign prostatic enlargement can produce bladder outlet obstruction that will lead to poor bladder emptying and complications.<sup>9</sup> Transurethral vaporisation uses the same equipment as transurethral resection of the prostate (TURP) does, but an intense electrical energy is provided to a special-shaped loop that vaporises tissue, instead of cutting chips of prostate and coagulating the space opened in the prostatic urethra.<sup>10,11,12</sup> The present study assessed surgical outcome and quality of life among patients of benign prostate hyperplasia.

We found that mean basal QOL score was 4.6, mean prostate volume was 51.2ml, BMI was 26.2kg/m<sup>2</sup>, basal IPSS score was 19.4. Lukacs et al<sup>13</sup> designed the BPH health-related quality-of-life instrument (BPH-HRQOL) that consists of 20 visual analogue scales, and has subsequently been reduced to 9 questions related to 3 domains (general, BPH specific and sexuality). When used to assess treatment with alfluzosin some subscores were reduced significantly (evaluative index); this scale was able to differentiate between symptomatic men and age-matched controls (discriminative index).

We observed that mean IPSS at 1 month was 5.8, at 2 months was 4.2, at 4 months was 3.5 and at 6 months was 2.7. The mean QOL at 1 month was 1.8, at 2 months was 1.4, at 4 months was 1.1 and at 6 months was 0.7. Gnana B et al<sup>14</sup> among 60 patients of benign prostate hyperplasia reported that the mean age of study participants in the Sd group was 60.44 years, in the Sd+Dt group it was 60 years, and in the TURP group, it was 63 years. The basal IPSS score reported was 10.54±1.80 in the Sd group, in Sd+Dt group 10.57± 2.21, and the TURP group 24.5±5.60. The IPSS score was significantly higher in the TURP group Sd+Dt group 44.91±2.596 ml, and the TURP group 50.6±4.42 ml.

Ghoel J et al<sup>15</sup> among 90 patients of benign prostate hyperplasia reported that patient's age ranges from 45-86 years, with the majority of patients 36 (40%) in the age group 56-65 years,

followed by 33(36.67%) in 66-75 years age group. Alcarz et al<sup>16</sup> evaluated change in quality of life (QoL) and symptoms in patients with lower urinary tract symptoms/benign prostatic hyperplasia (LUTS/BPH). 1713 patients were included for analysis. Mean (SD) IPSS and BII scores at baseline were 16.8 (5.4) and 6.8 (2.6), respectively. 8.9 % (n = 153) of study participants did not receive treatment (watchful waiting, WW), 70.3 % (n = 1204) were prescribed monotherapy (alpha-adrenergic blockers [AB]; phytotherapy [PT, of which 95.2 % was the hexanic extract of *Serenoa repens*, HESr]; or 5-alpha-reductase inhibitors [5ARI]), and 20.8 % (n = 356) received combined treatment (AB + 5ARI; AB + HESr; others). At 6 months, improvements in QoL were similar across the different medical treatment (MT) groups, both for monotherapy (AB: mean improvement [SD] of 2.4 points [2.4]; PT: 1.9 [2.4]; 5ARI: 2.5 [2.3]) and combined therapy (AB + 5ARI: 3.1 [2.9]; AB + PT: 3.1 [2.5]). There were no clinically significant differences between MT groups and all showed significant improvement over WW ( $p < 0.05$ ). HESr showed similar efficacy to AB and 5ARI both as monotherapy and in combination with AB. Results on the IPSS were similar. The limitation the study is small sample size.

## CONCLUSION

Authors found that there was improvement in quality of life in patients undergoing transurethral resection of the prostate for benign prostate hyperplasia.

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