

ORIGINAL RESEARCH

IPSS Score (International Prostate Symptom Score) - A Tool to Evaluate Effectiveness of TURP (Transurethral Resection of Prostate) In BPH Patients

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ABSTRACT

BPH is the most common disease in an aging male affecting 50% at 60yrs , 90% at 80yrs of age. The most common symptoms being not only voiding symptoms but also storage and post micturition symptoms affecting quality of life. In spite of various techniques used in treatment of BPH; TURP is still the Gold standard surgery. So we have conducted an study to assess the grading of BPH and studied the indications for surgery in BPH patients based on IPSS and assessed the improvement in IPSS after TURP.

Keywords: BPH – Benign prostatic hyperplasia, IPSS- International Prostatic Symptom Score, TURP- Transurethral Resection of Prostate. LUTS- Lower Urinary Tract Symptoms, QOL- Quality of Life.

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INTRODUCTION

Benign prostatic hyperplasia (BPH) also known as benign prostatic hypertrophy, benign enlargement of the prostate (BEP), and adenofibromyomatous hyperplasia, refers to the increase in size of the prostate. It is characterized by hyperplasia of prostatic stromal and epithelial cells, resulting in the formation of large, fairly discrete nodules in the periurethral region of the prostate. When sufficiently large, the nodules compress the urethral canal to cause partial, or sometimes virtually complete obstruction of the

urethra, which interferes with normal flow of urine and leads to obstructive & irritative voiding symptoms, collectively referred to as lower urinary tract symptoms (LUTS).

BPH is one of the most common diseases among ageing men, affects 1,2 more than half of men aged older than 50 years and nearly 90% of men over 80 years. BPH is one of the major causes of LUTS in men. LUTS are categorized into three groups of symptoms, i.e., voiding (reduced urinary stream, intermittency, hesitancy, straining, terminal dribble), storage symptoms (frequency, nocturia, urgency, overflow incontinence), and post micturition symptoms (sensation of incomplete emptying, post micturition dribble).^[3] The AUA Symptom Index (AUASI) and International Prostate Symptom Score (IPSS) are now considered the gold standard measurement tools for the assessment of BPH symptoms and response to treatment.^[4]

The AUASI is a standardized, validated, and reliable self-administered questionnaire that utilizes 7 questions to assess the frequency and severity of a patient's obstructive and irritative symptoms, with each question scored on a scale of 0 (not at all) to 5 (almost always). Total scores on the AUASI can range from 0 less/819/20-- 35; a score of 7 or 35 represents patients with mild/moderate and severe symptoms respectively.^[5] The IPSS uses the same 7 questions as the AUASI, with an additional question that is designed to address the degree of "bother" (quality of life) associated with the patient's urinary symptoms (measured on a scale of 0 to 6 — delighted to terrible). Available treatment options directed at decreasing LUTS and improving quality of life include: medical therapy, minimally invasive therapy, and surgical intervention.^[6] The present study aims to assess enlargement & grading of BPH, to study the indications for surgery in BPH patients based on IPSS and to assess the improvement in IPSS after TURP.

MATERIALS & METHODS

A prospective observational study of 60 patients was done, who underwent TURP for BPH in Dept of Urology in super speciality hospital, Khammam Mamata and IPSS score was recorded in all the patients before and 6 weeks after TURP in a period of 2 years(October 2019October 2021).

RESULTS

The age group of patients was in the range of 50 to 80 years, with 22 cases in the age group of 60 to 69 years accounting for 37% of total cases with a mean age of 65.9 ± 9.1 years. operatively all the 60 cases were categorized as severely symptomatic IPSS group (score 20preoperative IPSS being 25.2 ± 35) with mean 2.26, which when assessed 6 weeks after TURP reduced to a mildly symptomatic group in 52 cases (86%) with a mean post-operative score of $7.2 \text{ Post} \pm 2.68$. operatively after TURP in all the patients (60 cases, 100%) the obstructive symptoms were found to have a greater improvement than irritative obstructive symptoms score presymptoms. The mean operatively was $14.6 \pm$ which reduced to a mean score of 2.26 ± 1.85 post1.8, operatively after TURP. The mean $10.56 \pm$ irritative symptoms score pre1.52, which after TURP decreased post mean score of 4.9 operatively was operatively to a ± 1.7 . The mean score of quality of life pre which when assessed post-- operatively was 4.1 ± 1.1 , operatively after TURP had a mean score of 0.9 ± 0.8 . Of all the seven symptoms of IPSS, nocturia was found to have least improvement with TURP having a mean preoperative score of 3.8 ± 0.86 which when assessed 6 weeks after TURP had a mean post-operative score of 1.76 ± 1.19 . The outcome of TURP was considered favorable in 86% cases (52cases).

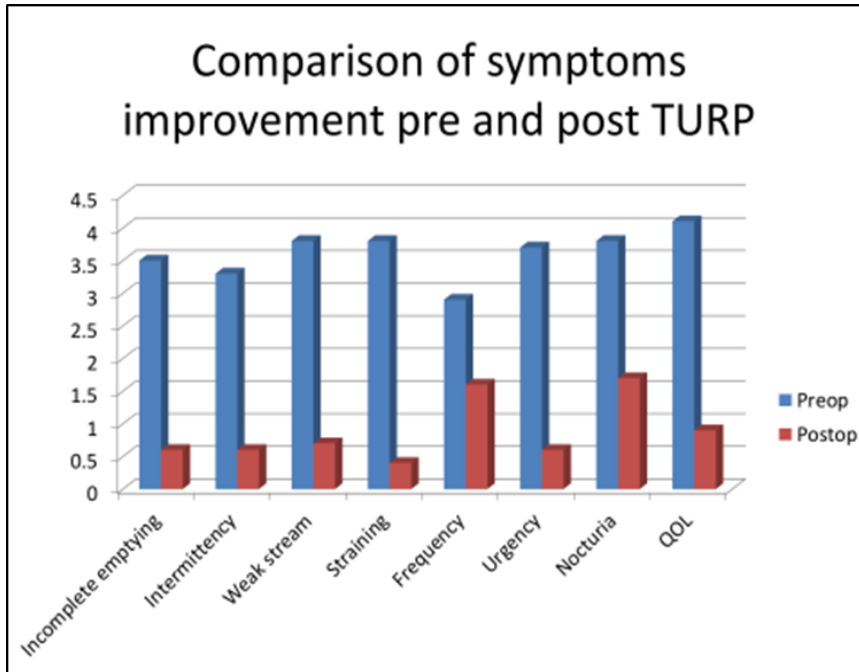


Figure 1: ?

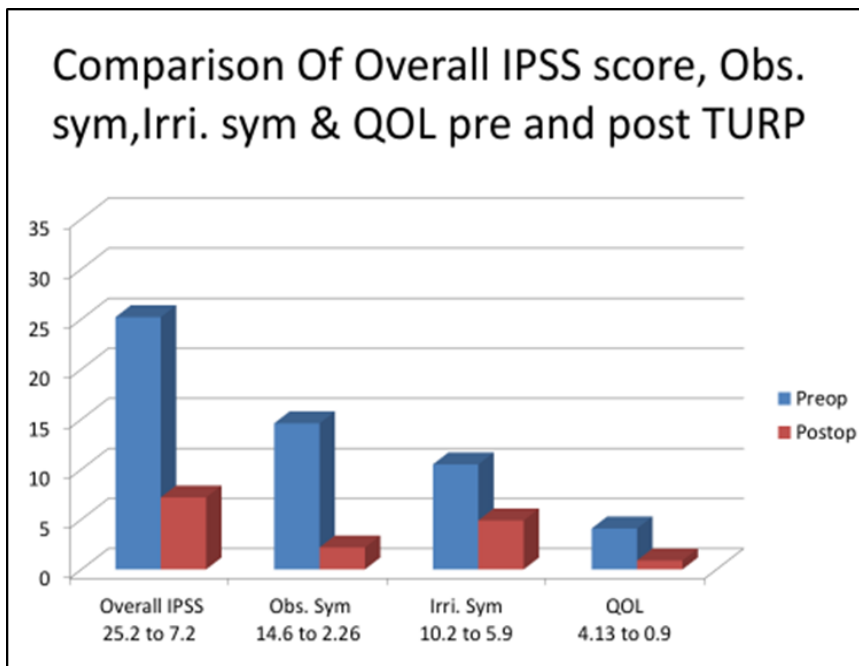


Figure 2: ?

DISCUSSION

The aims of treatment of BPH include the following: alleviation of LUTS, elimination of hematuria secondary to BPH, improvement of bladder emptying, prevention of progression of LUTS, relief of acute urinary retention (AUR), and prevention of development of AUR.^[8] Pharmacological treatment, including $\alpha 1$ and 5α reductasereceptor antagonists inhibitors, has been the standard first treatment for BPH.^[9] line However, surgical treatment for BPH is still required. For patients with very bothersome symptoms who may wish to pursue the most effective treatment as a primary treatment, pharmacological treatments may not be viewed as a requirement. Many types of minimally invasive treatments, have been introduced; however, the safety and efficacy

of these other methods are controversial, compared to TURP. Despite advancements in techniques for performance of minimally invasive surgical procedures, TURP remains the gold standard surgical intervention for treatment of BPH.^[10] According to a number of reports, the chance for improvement of a patients' symptoms after TURP was a mean of 88% with a 7096% confidence interval. This was significantly better than the outcomes of other minimally invasive procedures.^[11] BPH patients with more severe IPSS (≥ 17) and a larger prostate volume (>40 ml) have a higher risk of having to undergo surgical treatment suggesting that the IPSS and treatment.^[12] prostate volume may be useful predictors at the initial visit for surgical • We observed significant improvement in the mean change in both obstructive and irritative obstructive symptoms after TURP, but were improved more better than irritative symptoms as TURP decreases the size of prostate thereby alleviating obstructive symptoms rather than irritative symptoms.

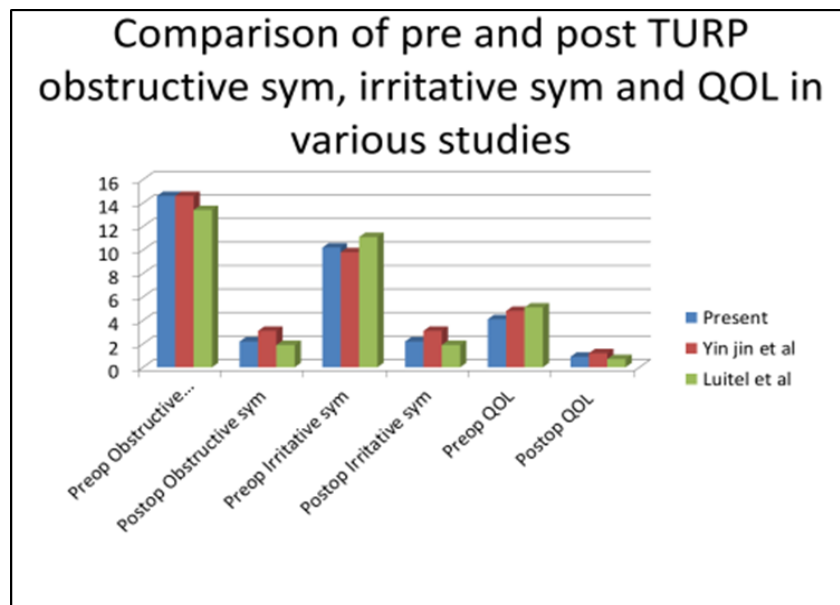


Figure 3: ?

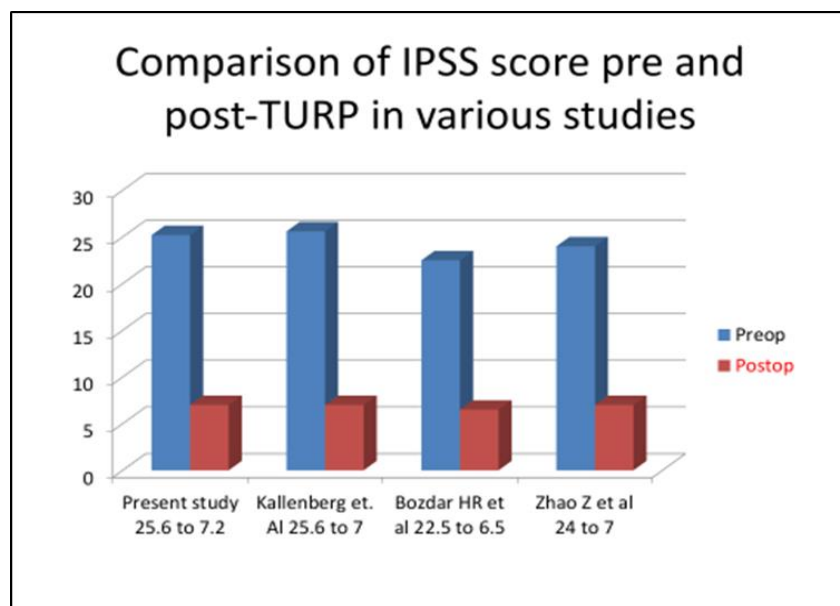


Figure 4: ?

CONCLUSION

The present study concluded that despite the availability of various medical & minimally invasive surgical modalities even today TURP still remains the gold standard procedure for patients with clinically proven BPH. IPSS was of immense help in evaluating the efficacy of TURP with respect to following: a. All the patients were in severely symptomatic group as per IPSS preoperatively and post operatively all the patients had improvement in their symptoms with majority of the patients being in the mildly symptomatic group. b. The quality of life of all the patients improved after TURP when assessed using QOL score. c. The improvement in the obstructive symptoms was greater than d. irritative Nocturia symptoms after TURP was the symptom that improved least with TURP in comparison with other symptoms.

REFERENCES

1. Bob Jan, SeyedSaeidDinnat, Amir Kazzai. Effect of combination treatment on patient-related outcome measures in benign prostatic hyperplasia: clinical utility of dutasteride and tamsulosin. *Patient Related Outcome Measures*. 2011; 2; 71-79.
2. NaslundMJ, IssaMM, GroggAL, EaddyMT, Black L. Clinical and economic outcomes in patients treated for enlarged prostate. *Am J ManagCare*. 2006; 12: 111–116
3. GravasS, MelekosMD. Male lower urinary tract symptoms: How do symptoms guide our choice of treatment? *CurrOpinUrol*. 2009; 19: 49–54
4. Mark A. Douglass, PharmD, James C. Lin. Update on the treatment of benign prostatic hyperplasia. *Formulary*. 2005; 40: 50–64.
5. AUA Practice Guidelines Committee. AUA Guideline on Management of Benign Prostatic Hyperplasia (2003). Chapter 1: Diagnosis and treatment recommendations. *J Urol*. 2003; 170: 530-547
6. Calais DaSilva F, Marquis P, DeschaseauxP, et al. Relative importance of sexuality and quality of life in patients with prostatic symptoms. *EurUrol*. 1997; 31: 272–80
7. Alan J wein, Louis R Kavoussi, Andrew C Novick, Alan W Partin, Craig A Peters. *Campbell & Walsh Urology*, 10th edition ed. Philadelphia: Elsevier Saunders; 2012, 75-77
8. McConnell JD, RoehrbornCG, Bautista OM, AndrioleGL Jr, Dixon CM, KusekJW, et al; Medical Therapy of Prostatic Symptoms (MTOPS) Research Group. The long-term effect of doxazosin, finasteride, and combination therapy on the clinical progression of benign prostatic hyperplasia. *N Engl J Med* 2003;349:2387-98
9. OelkeM, Bachmann A, DescazeaudA, EmbertonM, GravasS, Michel MC, et al. Guidelines on the management of male lower urinary tract symptoms (LUTS), incl. benign prostatic obstruction (BPO). Arnhem: European Association of Urology; 2012
10. Reich O, GratzkeC, StiefCG. Techniques and long-term results of surgical procedures for BPH. *EurUrol*2006;49: 970-8 97
11. Jang DG, YooC, Oh CY, Kim SJ, Kim SI, Kim CI, et al. Current status of transurethral prostatectomy: a Korean multicenter study. *Korean J Urol* 2011;52:406-9
12. Lee KS, Kim ME, Kim SJ, Kim HK, Kim HS, Kim CI, et al. Predictive factors of the long-term medical treatment failure in benign prostatic hyperplasia. *Korean J Urol*2008;49:826-30
13. KallenbergF, HossackTA, Woo HH. Long-term follow up after electrocautery transurethral resection of the prostate for benign prostatic hyperplasia. *Adv Urol*2011;2011: 359478
14. LuitelBR, Gupta DK, ChalisePR, SubediP, ChapagainS, Sharma UK, ; Change in Storage Symptoms after Transurethral Resection of Prostate: A Prospective Observational Study ; *JSSN* 2014; 17

15. BozdarHR, MemonSR, ParyaniJP. Outcome of transurethral resection of prostate in clinical benign prostatic hyperplasia. J AyubMedical college Journal, Abbottabad 2010; 22(4):194 -96 .
16. Zhao Z, Wang G, Na YQ. Changes of urinary symptoms after TURP & its correlation with clinical parameters. Zhonghuawaikezachi (chineseJournal of surgery) 15 jul2007; 45(14): 957-9.
17. Kang YJ, Kim KH, SeoY, Lee KS.; Effect of Transurethral Resection of the Prostate on Storage Symptoms in Patients with Benign Prostatic Hyperplasia of Less than 30 ml.-. World J MensHealth. 2013 Apr;31(1):64-9. doi: 10.5534/wjmh.2013.31.1.64.college of Medicine, Dongguk University, Gyeongju, Korea