ORIGINAL ARTICLE

Role of Medical Therapy and Surgery in Enlarge Benign Prostatic Hyperplasia in Early Stage

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ABSTRACT

Objective: To determine the role of Medical Therapy & Surgery in enlarged benign prostatic Hyperplasia in early stage.

Study Design: Prospective observational study:

Setting: This study was conducted at Liaquat University of medical and health sciences Jamshoro

Duration: and Duration: Two years study from February 2018 to January 2020.

Patients and Methods: The Prospective observational study was carried out in the department of surgery surgical unit 1 ward 2 at Liaquat University of medical & health sciences Jamshoro. All the patients having enlarged benign prostate hyperplasia were included. Included patients underwent medical history and complete clinical examination including ultrasound of abdomens and prostate, Urine DR, Urine Culture and other required laboratory investigations. Patients underwent both medical surgical treatments. All the patients were followed for one year and their outcomes were noted. All the data was recorded via self-made proforma. Data analysis was done by using SPSS version 20.

Result: Total 50 patients were incorporated; their mean age was 58.34 ± 10.55 years. Mean duration symptoms was 8.36±2.21 months. Out of all 22 patients were presented with irrigative symptoms, 18 patients had irrigative and obstructive symptoms and 10 patients had obstructive symptoms. Majority of the patients 22 out of all had IPSS scoring of 20-35. Both medical and surgical treatment showed significant results. However Alpha adrenergic blocking plus TURP combine therapy was found to more effective treatment option for severely enlarged benign prostate hyperplasia to early decreases the symptoms.

Conclusion: It was concluded that Alpha Adrenergic Blocking plus 5 alpha Reductase inhibitor combine treatment was more effective in patients having mild to moderate enlarged benign prostate hyperplasia, while Alpha adrenergic blocking plus TURP was the effective treatment option for patients having severe benign Prostatic Hyperplasia to decrease the symptoms immediately.

Keywords: Benign prostatic Hyperplasia, Medical & surgical treatment.

INTRODUCTION

Benin prostatic Hyperplasia is a glandular enlargement of prostate mostly seen in old age males with upsetting lower urinary tract symptoms (LUTS) that can decrease the quality of life via disrupting sleep and daily life activities. Initially patient presented with either irritative or obstructive symptom. Obstructive symptoms are the Hesitancy, Poor flow, Intermediate stream, dribbling, Sensation of poor Bladder emptying Retention of urine., while irrigative symptoms are frequency, urgency, nocturnal and incontinence.[1,2] Severity of the prostate disease can be categorized by the commonly used scoring system "International Prostate Symptom Score" (IPSS), as mild (score 1-7), moderate (score 8 -19) and sever (score 20 - 35). Scoring system was developed by (AUA) and adopted by World health Organization (WHO).[3] BPH prevalence increases after 40 years of the age, with the 8%–60% prevalence at age of ninety years. It is suggested that risk of the BPH among Asian decreased in contrast to white western population.[4] Physical activities, modifiable lifestyle and exercises can be decrease the risk of BPH. Diagnostic technique in Benign prostatic Hyperplasia is digital rectal examination (DRE).[4] The diagnosis has been also based primarily on the ability of the index finger of surgeon to detect the mucosa and mobility of gland, median sulcus of gland obliterated, while upper limit are not reach able. The accuracy rate of digital rectal examination (DRE) in detecting Benign Prostatic Hyperplasia is about 90%[5]. Investigations such as Ultrasound of prostate, Endo rectal ultrasound of prostate can be used to detect size and weight of gland.[6] Urinary flow rate, ideal flow rate of >15 ml is normal.10 to 15 ml equivocal and <10mls is low; Voiding pressures increases more than 80 cmH_2O are High, Pressure between 60 and 80 cmH_2O are equivocal and pressure <60 cm H_2O are normal. Residual urine >200 ml is indicated patients need treatment. Computerized Tomography (CT) and Magnetic Resonance Imaging (MRI) are useful for locally advanced disease of prostate (carcinoma).[7-9] However DRE can be done in five positions like, left lateral, right lateral, knee elbow position, supine position and lithotomy position.[10] Sometime Fibrotic prostate can present with obstructive and Irritative symptoms. Management Depend on history, clinical examination, investigations and treatment option. Best management of patient of prostate depend on i-e Irritative and obstructive symptoms, as per IPSS scoring, DRE finding and report of ultrasound of prostate. By early diagnosis and treatment can be decrease the complications of enlarge prostate. Best treatment options are alpha adrenergic blocking agent, 5 alph reductase inhibitors[11-14], surgical Transurethral Resection prostate (TURP), Transvesical prostatectomy, Retropubic prostatectomy and

Perineal prostactomy. BPH can be treated combine medically and surgically.[15-18] This study has been conducted to assess the role of Medical Therapy & Surgery in enlarged Benign prostatic Hyperplasia in early stage.

MATERIAL AND METHODS

This prospective observational study was conducted at department of surgery at surgical unit 1 ward 2 at Liaquat University of medical & health sciences, Jamshoro from March 2018 to February 2020 .The study comprises 50 patients. All the patients having enlarged benign prostate hyperplasia were included from OPD (Out Patients Department) and admitted patients. Patients having diagnosed prostate carcinoma, history of previous surgery, patients those were agree to participate in the study and those who were not followed the study follow-up were excluded. Admitted patients were evaluated fully after history, clinical examination, DRE and specific investigation of Ultrasound of abdomens and prostate, Urine DR ,Urine Culture and Sensitivity .Trans rectal Endo luminal ultra sound, X-ray Lumber sacral spine, Urinary flow Rate, exclude prostate cancer then do Prostatic Specific Antigen Trans rectal biopsy, C.T Scan, MRI. Evaluated patients were evaluated fully after history, clinical examinations &specific investigations were recorded on a proforma designed for the study. Patients underwent both medical surgical treatments. Treatments were done by senior surgeon having minimum experience of five years. All the patients were followed for one year and their outcomes were noted. All the data was recorded via self-made proforma. Data analysis was done by using SPSS version 20.

RESULTS

Total 50 patients were incorporated; their mean age was 58.34±10.55 years. Mean duration symptoms was 8.36±2.21 months. Out of all 22 patients were presented with irrigative symptoms, 18 patients were presented with irrigative and obstructive symptoms, 10 patients were presented with Obstructive symptoms. Table 1

Out of 50 patients 16 patients were presented IPSS was 1-7, while12 patients were presented with IPSS scoring of 8-19 and majority of the patients 22 were noted with IPSS scoring of 20-35. Table 2

Table 1: Statistical description of age and duration of symptoms n=50

Variables		Statistics
Age (Mean ± SD)		58.34 ± 10.55 years
Duration of symptoms (Mean ± SD)		8.36 ± 2.21 Months
Symptoms	Irrigative symptoms	22(44.0%)
	Irrigative & Obstructive Symptoms	18(36.05)
	Obstructive symptoms	10(20.0%)

Table 2: patients distribution according to International Prostatic Scoring System n=50

IPSS	Frequency	Percentage
1 to 7 Mild	16	32.0%
8 to 19 Moderate	12	24.0%
20 to 35	22	44.0%

As treatment of enlarged benign prostate hyperplasia, out of all 18.0% patients were treated by combine Alpha Adrenergic blocking Drugs Xatral SR 5mg daily for one month and 5 Alpha Reductase inhibitors Proscare 5mg daily for 6 month, 9 Patients Were treated by 5 Alpha Reductase inhibitors proscare 5mg one daily for one year and 22 patients were treated by Alpha Adrenergic Blocking plus surgical intervention of Trans urethral Resection of Prostate. Table 3

Table 3: patients distribution according to International Prostatic Scoring System n=50

Treatment options	Frequency	Percentage
Alpha Adrenergic Blocking plus 5 alpha Reductase inhibitor	19	38.0%
5 alpha Reductase inhibitors	9	18.0%
Alpha adrenergic blocking plus TURP	22	44.0%

DISCUSSION

Benign Prostatic Hyperplasia is a pathological disease of prostate. Benign prostatic hyperplasia is more commonly seen in those male patients having age above 45 years. In this study their mean age was 58.34±10.55 years and mean duration symptoms was 8.36±2.21 months. On other hand Oranusi CK et al[3] reported that the patient's mean age was 67.2±9.7 years. In another study of Ugraiah AB et al[19] reported that the mean age of study cases was 69.1 years. In this study 16 patients presented with mild symptoms, 12 patients had moderate symptoms and 22 were noted with severe symptoms as per IPSS scoring system. While in the study of Oranusi CK et al[3] reported that the, majority of patients (58.8%) presented with moderate symptoms according to IPSS with scoring mean as mean of 13.5±3.0. However Ugraiah AB et al[19] reported that out of study subjects 24% patients had Grade I prostate enlargement, 64% presented with Grade II and 12% presented with Grade III of prostate enlargement.

In this study 18.0% patients were treated by combine Alpha Adrenergic blocking drugs Xatral SR 5mg daily for one month and 5 Alpha Reductase inhibitors Proscare 5mg daily for 6 month, and this combination was found to be a effective treatment option for mild and moderate prostate enlargement. Similarly Herbert lepro MD et al.[20] reported that the combination treatment of finasteride, a 5–alpha reductase inhibitors and terazosin an Alpha-blocker, significantly improved lower urinary tract symptoms and increased peak urinary flow rates in men with BPH. In this study 22 patients were treated by Alpha Adrenergic Blocking plus surgical intervention of Trans urethral Resection of Prostate. Stephen S et al[21] reported that the Doxazocin have a similar receptor profile as terazocin, daxazocin prescribed as a monotherapy to alter the natural history of the condition. Lokeshwar DS et al[22] reported that the medical therapy for BPH Includes 5-Alpha- reductase inhibitors And Alpha-blockers, or a combination of both. Mendez-probst EC,et al[23]. Demonstrated that the medication such as alpha –blockers, 5- alpha reductase inhibitors (or both are usually the fist-line5-ARIS), both are usually the first line approach and minimally invasive treatments, prostatic urethral Lift (PUL) and water vapour thermal therapy. Prostectomy is the gold standard and may be transurethral (transurethral resection of the prostate (TURP). In the observation of this study Alpha Adrenergic

Blocking plus 5 alpha reductase inhibitor combine treatment observed to an effective treatment option for early stage benign prostate hyperplasia. Similarly Shin TJ et al[24] also observed that the combine therapy of α-blocker and a 5-ARI for the prolonged period of 10 years can decreases the adverse outcome BPH progression, like as AUR and BPH-linked surgeries, in contrast to α-blocker monotherapy therapy alone. Fixed combined dose of the dutasteride and tamsulosin is available now on benefits of Pharmaceutical Scheme with the authority coefficient listing. However combined therapy has increased risk of the adverse effects like sexual dysfunction, and it needs to be well-adjustment against potential benefits for the symptoms of BPH.

CONCLUSION

It was concluded that Alpha Adrenergic Blocking plus 5 alpha Reductase inhibitor combine treatment was more effective in patients having mild to moderate enlarged benign prostate hyperplasia, while Alpha adrenergic blocking plus TURP was the effective treatment option for patients having severe benign Prostatic Hyperplasia to decrease the symptoms immediately. However common clinical features were either irrigative, or obstructive. If disease not diagnosed and treated timely the gland may converted to malignancy or renal failure.

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