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THE SIDDHA DRUG VELVANGA PARPAM INTERVENTION IN THE MANAGEMENT OF BENIGN PROSTATIC HYPERPLASIA (BPH): A CASE SERIES

K.Samraj Research Officer (Siddha), Siddha Central Research Institute, Chennai, India - Corresponding Author

K.Kanakavalli Principal, Government Siddha Medical College, Chennai, India.

P.Sathiyarajeswaran Asistant Director, Scientist-II, Siddha Central Research Institute, Chennai, India.

ABSTRACT The purpose of this case series is to describe a Siddha Herbo-mineral drug VP(Velvanga parpam) in treating a small group with Benign Prostatic hyperplasia. Clinically, BPH is distinguished by the progressive development of Lower Urinary Tract Syndrome (LUTS). Globally, benign prostatic hyperplasia affects about 210 million males as on 2010 (6% of the population). BPH is the 5th most prevalent non-cancer-related disorder among men aged 50 years and above. Economic burden of BPH accounts for seventh highest 1-year disease specific medical costs. The specific approach used to treat BPH depends upon number of factors like age, prostate size, weight, prostate-specific antigen level and severity of the symptoms. Ten patients were carefully chosen based on the selection criteria from AAGHIM, Chennai. Of the patients under study 50% of patients were in the age group of 61-70 years, 10% of patients were in the age group of 71-80 years, 40% of patients were in the age group of 51-60 years. The interventional drug was administrated orally for 12 weeks including follow up with regular visit. The severity of the symptoms analyzed by IPSS. After 12 weeks of study, 20% of cases were under Mild Symptom category, 80% of cases came under moderate category, and none of cases came under severe category. These data confirms that the Siddha drug 'Velvanka Parpam' can be used as a novel potential agent for BPH.

KEYWORDS : BPH, Prostate enlargement, Velvanka parpam, Siddha system

Introduction:

Of men aged from 50-65 years, 15-25% of them have LUTS (Lower Urinary Tract Syndrome) of sufficient severity that affects their quality of life[1]. One of the predominant cause of LUTS is BPH (Benign Prostatic Hyperplasia).This is because of the physical compression of the urethra resulting in the anatomical Bladder Outlet Obstruction (BOO). BPH is the proliferation of non-malignant Stromal and Epithelial cells in the Prostate gland. This may lead to nodular formations in the Peri-urethral area of the Prostate, subsequently causing partial or complete obstruction of the urethra[2]. The median lobe of the Prostate gland is the major proliferative area in BPH[3].

A normal prostate weighs 20 ± 6 g in men aged 21–30 years, and this weight remains essentially constant with increasing age unless BPH develops. The prevalence of pathological BPH is 8% in the 4th decade of life, however, 50% of men develop pathological BPH between 51–60 years. The average weight of a prostate identified at autopsy as having BPH is 33 ± 16 g. Only 4% of the prostates in men older than 70 years weigh >100 g. An analysis of a logistic growth curve of BPH lesions removed at prostatectomy indicates that the growth of BPH is initiated probably before the patient is 30 years[4]. Globally, benign prostatic hyperplasia affects about 210 million males as of 2010 (6% of the population)[5] BPH is the 5th most prevalent non-cancer-related disorder among men aged 50 years and older. Economic burden of BPH accounts for seventh highest 1-year disease specific medical costs[6]. LUTS is the major part which affect the QOL of geriatric population.

Moopu is the term used in Siddha system for Aging, which also includes the Aging related disorders[7]. The system specially focusses in preventing the ageing process under *Kayakarpam*. Velvanka Parpam[8] the interventional drug, is one of the herbo-mineral preparation which is widely used to treat the LUTS. The drug trial was conducted in AAIMH, Department of Maruthuvam, Govt. Siddha Medical College, Chennai[9] between 2012-2013. The trial has proved to be beneficial in reducing the symptoms of prostatic hyperplasia. This clinical trial was planned to substantiate its therapeutic benefits and to evaluate the efficacy in various clinical and uroflowmetric parameters in patients with BPH.

Materials and Method:

Patients were selected from those currently being treated by the multi-disciplinary team (MDT) in P.G. Department of Maruthuvam (Medicine), Govt. Siddha Medical College, Chennai, Tamil Nadu, India. Before selecting, the subjects had a full BPH and Malignancy Assessment.

The objective of the trial was to assess the benefits of VP drug in terms of the following parameters.

- Decrease of AUA score[10]
- Reduction in post-void residual urine
- Development in the quality of life

Basic Selection Criteria:

- Male subjects 40-80 years of age who were symptomatic and diagnosed as BPH.
- Post-void residual (PVR) ≤250 ml.
- Prostate volume ≤ 80 cm^3.

The investigations done were:

- Serum prostate specific antigen (PSA)
- Trans-abdominal USG for prostate size, weight, lobes involved, echo texture and post-void residual urine.

Following parameters were evaluated before and after treatment:

- International prostatic symptom score (IPSS): Mild 0-7; Moderate 7-19; Severe 20-35[11]
- Prostate weight
- Post-void residual urine

Patient were treated with VP drug for 12 weeks including 4 weeks of follow up. Patient visit the hospital once in every 7 days and get the trial medicine for a week. USG-Pelvis measuring for Prostate volume, PSA screening test for malignant condition, PSA level below 4 ng only included. Patients were also analyzed by the siddha investigation procedures like *Envagai thervu, Neerkuri, Neikuri*[12] and the patients were monitored by IPSS on every visit. All relevant consent and permission were obtained.

Study Design:

Velvanka Parpam 130 mg was prescribed to be taken orally after meal with adjuvant of butter for the duration of 12 weeks for 10 Patients.

Case Description:

No. of Patients: 10
Test drug: Velvanka Parpam (VP)
Duration: 12 weeks

Case-1:

A 56 year old male having complaints of Incomplete bladder empting, weak stream and strain in urination, nocturia since 30 days, visited OPD of PG Maruthuvam department. The symptomatic score (IPSS) was calculated, he scored about 7/35. He was advised for USG pelvis. As per the USG report, volume of the Prostate gland increased up to 20

cc, Post voided residual Urine volume (PRU) increased 43 ml. Velvanka parpam was prescribed for 12 weeks along with the adjuvant of butter. At the 8th week of treatment, Patient had reduced symptoms, reduced IPSS scored about 5/35. After 12 week of treatment USG pelvis was done. The report showed reduced PRU volume upto 18 ml. and there is no changes in the prostate volume.

Case-2:
A male Patient aged 64 years having complaints of Nocturia, intermittency, frequency of urine, straining and weak stream of urine for over 6 months. Patient had a history of hypertension for the last 5 years. He had IPSS of 19/35 at the time of initial visit. According to USG report he had 84 cc of prostate volume and PRU was 38 ml. After 8 weeks of treatment, the IPSS markedly decreased up to 15/35. Nocturia condition completely disappeared. At the 12th week the score was 12/35. Post treatment USG has not decreased much, volume of the prostate is 78 cc and the PRU is 35ml.

Case-3:
A 74 years old male having complaints of urgency, weak stream and intermittency of urine, nocturia since 2 months. The symptomatic score (IPSS) was calculated, he scored about 18/35. He was advised for USG pelvis. As per the USG report, volume of the Prostate gland increased up to 45 cc, Post voided residual Urine volume (PRU) increased to 60 ml. At the 8th week of treatment, Patient had reduced symptoms, reduced IPSS scored about 15/35. After 12 weeks of treatment USG pelvis was done. The report shows reduced PRU volume up to 51 ml. and there is no a changes in the prostrateVolume. But the IPSS markedly decreased 10/35.

Case-4:
A 68 years old male patient with complaints of incomplete bladder empting, urgency and Dribbling of urine, since 8 months and had taken treatment in the model medical science. The IPSS calculated about 16/35. He had USG pelvis report which was taken 1 month before from the initial visit. As per the USG report, volume of the Prostate gland was 45 cc, Post voided residual Urine volume (PRU) increased 150 ml. At the 8th week of treatment, Patient had reduced symptoms, reduced IPSS scored about 12/35. After 12 weeks of treatment USG report showed reduced PRU volume 75 ml. and the prostrate volume was 41 cc, at the same time IPSS reduced up to 9/35.

Case-5:
A 61 years old male having complaints of weak stream and urgency of urine, nocturia since 3 months. The symptomatic score (IPSS) was calculated, he scored about 17/35. As per the USG report, volume of the Prostate gland increased up to 32 cc, Post voided residual Urine volume (PRU) increased 15 ml. At the 8th week of treatment, Patient had reduced symptoms, reduced IPSS scored about 15/35. After 12 weeks of treatment USG pelvis report showed reduced PRU volume up to 7 ml. and the prostrate volume was 30cc. The IPSS reduced up to 12/35.

Case-6:
A male patient, 58 years old having complaints of urgency, weak stream and incomplete bladder empting since 2 months. He had a history of hypertension for the past 10 years. The symptomatic score (IPSS) was calculated as 11/35. He was advised for USG pelvis. As per the USG report, volume of the Prostate gland was 45 cc, Post voided residual Urine volume (PRU) increased 100 ml. At the 8th week of treatment, Patient had slightly reduced symptoms, there was no changes in IPSS. After 12 week of treatment USG pelvis was done. The report showed reduced PRU volume up to 95 ml. and the prostrate volume was 38 cc .IPSS was about 6/35.

Case-7:
A 65 years old male having complaints of intermittency, weak stream of urine since 4 months. Patient had history of renal calculi. The symptomatic score (IPSS) was calculated, it was about 13/35. As per the USG report, there was no calculus present in the kidney, Volume of the Prostate gland increased up to 42 cc, Post voided residual Urine volume (PRU) increased 6 ml. After 12 week of treatment USG pelvis was done. The report showed PRU volume as 8 ml. Volume of prostate was 40 cc and IPSS was 8/35

Case-8:
A 62 years old male having complaints of Incomplete bladder empting, weak stream and urgency, intermittency of urine, nocturia since 1 year. The symptomatic score (IPSS) was about 28/35, volume of the Prostate gland was about 56.7 cc, Post voided residual Urine volume (PRU) 250 ml. After 12 week of treatment IPSS markedly reduced about 15/35, USG report showed reduced PRU volume up to 140 ml the Volume of prostate was 34 cc.

Case-9:
A 57 years aged male having complaints of Incomplete bladder empting, weak stream and straining and urgency of urine, nocturia since 2 years. The symptomatic score (IPSS) was about 18/35. As per the USG report, volume of the Prostate gland increased up to 47 cc, Post voided residual Urine volume (PRU) increased 140 ml. After 12 weeks of treatment USG pelvis report showed reduced PRU volume up to 95 ml. and there was moderate changes in the prostrate volume that is 35.5 cc. IPSS was about 10/35.

Case-10:
A male Patient aged 58 years having complaints of intermittency, frequency of urine and weak stream of urine since from 6 months. Patient had a history of dengue, he said the above mentioned symptoms were beginning to appear after the recovery from dengue. He had IPSS of 17/35 at time of initial visit. According to USG report he had 45 cc of prostate volume and PRU was 75 ml. After 8 weeks of treatment, the IPSS markedly decreased up to 15/35. Nocturia was seen after 8th week of treatment. At the 12th week the score was 13/35. Post treatment USG had not decreased much, volume of the prostate was 43 cc and the PRU was 62 ml.

Result:
The most significant result from this study is the reduction of IPSS and Prostate volume. Of the patients under study 50% of patients were in age group of 61-70 years, 10% of patients were in the age group of 71-80 years, 40% of patients were in the age group of 51-60 years (Table1). 90% of Patients had a mixed diet and 10% had only vegetable diet (Table2). 70% of patients had no bad habits, 20% of cases were smoker and 10% of cases were alcoholic, 0% of cases were Tobacco Chewing (Table3).

Table-1: Age Distribution

S.No.	Age (Years)	No. Of Patients (n=10)	Percentage
1	40-50	0	0%
2.	51-60	4	40%
3	61-70	5	50%
4.	71-80	1	10%

Table-2: Food Habits:

S.No.	Food Habit	No. Of Patients	Percentage
1	Vegetarian	1	10%
2.	Mixed or non-vegetarian	9	90%

Table-3: Personal Habit:

S.No.	Age (Years)	No. Of Patients (n=20)	Percentage
1	Smoker	2	20%
2.	Alcoholic	1	10%
3	Tobacco chewing	0	0%
4.	others including non-users	7	70%

Table-4: Symptoms:

S.No.	Symptoms	Before Treatment	After Treatment		
		No. Of Patients (n=10)	Percentage	No. Of Patients (n=10)	Percentage
1	Incomplete emptying	5	50%	2	20%
2.	Frequency of urine	1	10%	0	0%
3	Intermittency of urine	5	50%	3	30%
4.	Urgency	6	60%	5	50%
5.	Weak stream	9	90%	6	60%
6.	Straining	3	30%	0	0%
7.	Nocturia	7	70%	2	20%

Prior to the study, they were categorized based on the IPSS. 10% of cases had Mild symptoms, 80% of cases had Moderate symptoms,

10% of cases had severe symptoms. After 12 weeks of study, 20% of cases were under Mild Symptom category, 80% of cases came under moderate category, and 0% of cases came under severe category (Table-5). Before treatment 50% of cases had incomplete emptying, 10% of cases had Frequency of urine, 50% of cases had Intermittency of urine, 60% of cases had Urgency, 90% of cases had Weak stream, 30% of cases had Straining, and 70% of cases had Nocturia. After treatment Straining was significantly reduced, only 20% of Patients had Nocturia and incomplete emptying and 30% of patients had Intermittency of urine, frequency and straining of urine disappeared (Table-4).

It is of note that by week 8 there appeared to be a clear separation between the IPSS of patients that were doing well, and those that failed to respond to the treatment. A further positive sign from the trial was the significant reduction in the overall prostate volume and predominant disappearance of the straining and frequency of urine symptom. Though a small case study, with number of patients with improved QOL, the result being less significant yet a positive and encouraging one.

Table-5: IPSS

Patient's No	1	2	3	4	5	6	7	8	9	10
Before Treatment	7	19	18	16	17	11	13	28	18	17
Middle of the Treatment	5	15	15	12	15	11	13	20	15	15
After Treatment	5	12	10	9	12	6	8	15	10	13

Conclusion:

Therefore, Velvanka Parpam is effective in controlling the symptoms of BPH, improving the Quality of life in geriatric population. The size of the prostate was reduced in a significant number of patients. During the therapy none of the patients showed any adverse effects. The therapy was well tolerated and accepted by the patients. Thus, VP can be considered as a drug of choice in the management of patients with symptomatic BPH.

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