



Research Article

EFFECT OF *MUSTADI KALPA* IN THE MANAGEMENT OF *MUTRAGHATA* W.S.R. TO BENIGN PROSTATIC HYPERPLASIA

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KEYWORDS: Benign Prostatic Hypertrophy; Prostatic Hyperplasia; *Vatastheela*; *Mustadi Kalpa*.

ABSTRACT

Mutraghata is a group of Obstructive Uropathy disorders which has been dealt in detail in almost all ancient treatises, in which the *MutrAGRAnthi*, *Mutrasanga*, *Bastikundalika* & *Mutrastheela* are the conditions which are similar to the BPH in respective of obstructive as well as irritative phases. Benign prostatic hyperplasia (BPH) is a common cause of male lower urinary tract symptoms (LUTS). BPH is a senile disorder and chiefly affects individuals above the age of 40 years. The symptoms are increased frequency of micturition, dribbling, hesitancy, and the features of chronic urinary retention. The symptoms of benign prostatic hyperplasia (BPH) closely resemble both in anatomically and symptomatically with *Vatastheela* which is mentioned in Ayurvedic text. Surgical management has been accepted as the standard management but is associated with many disadvantages as well as complications, which may not be acceptable at this age. Conservative management with modern medicines is also not free from side effects. So, in this age-group, there is a need for much safer alternative method of management. *Mustadi kalpa* cited by Acharya Sushruta in the context of *MutrAGhat chikitsa* is a well known therapeutic drug in this context. A study was carried out to evaluate its efficacy in which 30 patients were selected for the trail with the symptoms of BPH and were subjected to administration of *Mustadi kalpa* in the dose of 10 mg TDS in divided doses orally for 45 days. The Total effect of the formulation has provided considerably significant relief on the subjective as well as objective parameters. *Mustadi kalpa* was found safe and effective in symptomatic management of *Mootraghata* (BPH) by virtue of its *Shothhara*, *Balya*, *Tridoshara* and *Vatanuloman* properties.

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INTRODUCTION

Despite intense research efforts in the last three decades to elucidate the underlying etiology of prostate growth in older men, the cause and effect relationship have not been established. The symptoms associated with BPH are common and their frequency increases with the age. The incidence of BPH can be as high as 50% by the age

60 and 90% by the age 85 years. It is estimated that in men 80 years or more 90% show histological evidence of the condition, 81% have BPH related symptoms and 10% suffer from urinary retention^[1]. Surgical management has been accepted as the standard management but is associated with many disadvantages as well as complications, which may

not be acceptable at this age. Conservative management with modern medicines is also not free from side effects namely retrograde ejaculation, hypotension, impotency, nasal blockage, skin rashes, etc. In order to avoid these side effects of conservative treatment, patients opt for surgery but considering their age & other diseases they usually end up with post-operative complications such as hemorrhage, stricture, sepsis, incontinence, bladder neck contracture, etc. & it is now known that after eight years 15-18% of men with BPH will undergo repeated TURP & rate after open prostatectomy is about 5% [2-3]. So, in this age-group, there is a need for much safer alternative method of management. In this regard, many works have been carried out and shown that the Ayurvedic approach, using natural medicines, is a far better approach. In Ayurveda, *Mutraghata* (Obstructive uropathy) is described in detailed with their management in our classics, especially in Sushruta Samhita^[4,5,6]. The symptoms of benign prostatic hyperplasia (BPH) closely resemble both in anatomically and symptomatically with *Vatastheela* which is mentioned in Ayurvedic text. The vitiated Vata gets lodged between the bladder and rectum and produces the stony hard swelling. The various symptoms are *Chala unnata granthih* (singly movable and elevated) *Vinmutranila sanga* (retention of urine, faeces and flatus) *Basti adhma* (distension of the urinary bladder) and *Vedana* (excruciating pain in the bladder)^[7]. *Mustadi kalpa* cited by Acharya Sushruta in the context of *Mutraghata chikitsa* has *Deepan*, *Pachan*, *Shothhar*, *Kaphavatahara*, *Lekhana*, *Vatashodhaka* and *Mootrala* actions and is said to be effective in *Mootramarg avrodha* ^[8,10].

MATERIAL AND METHODS

The patients were randomly selected from the O.P.D. & I.P.D. of Jammu Institute of Ayurveda and Research and diagnosed on the basis of both the Subjective and Objective criteria of *Vatastheela* - BPH irrespective of their age, religion, race, occupation etc. Some patients with greater degree of Bladder outlet obstruction, acute retention of

urine requiring catheterization and those with impeding upper urinary tract affections were excluded from study.

AIMS AND OBJECTIVES

To study the effects of *Mustadi kalpa* in the management of *Vatastheela*, with special reference to BPH.

Inclusion Criteria

- Age group between 40 – 70 years.
- Signs and symptoms of *Vatastheela* /BPH.

Exclusion Criteria

- Patients below 40 and above 70 years of age
- Acute retention of urine.
- Prostatic carcinoma
- Prostatitis
- Neurogenic bladder
- Urethral stricture
- urinary calculi
- renal failure

Plan of Work

1. A thorough history, General examinations, and Systemic examinations were conducted and duly recorded in the special proforma prepared for the study on the basis of IPSS score.

2. Investigations

- Digital and ultrasonographic examination of the prostate gland.
 - Residual urine volume assessment by ultrasonography.
 - Urine flow rate measurement.
 - Routine hematological examination.
 - PSA, if necessary.
3. The selected patients were subjected to administration of *Mustadi kalpa* in the dose of 10 mg TDS in divided doses orally for 45 days. The *Pathya* regimen was advised to be followed throughout the entire schedule.
- (b) *Mustadi kalpa* in the dose of 10 mg TDS in divided doses orally for 45 days.

International Prostate Symptom Score (IPSS)

	Not at all	Less than 1 time in 5	Less than half the time	About half the time	More than half the time	Almost always
Incomplete emptying Over the past month, how often have you had a sensation of not emptying your bladder completely after you finish urinating?	0	1	2	3	4	5
Frequency	0	1	2	3	4	5

Over the past month, how often have you had to urinate again less than two hours after you finished urinating?						
Intermittency Over the past month, how often have you found you stopped and started again several times when you urinated?	0	1	2	3	4	5
Urgency Over the last month, how difficult have you found it to postpone urination?	0	1	2	3	4	5
Weak stream Over the past month, how often have you had a weak urinary stream?	0	1	2	3	4	5
Straining Over the past month, how often have you had to push or strain to begin urination?	0	1	2	3	4	5
Nocturia Over the past month, many times did you most typically get up to urinate from the time you went to bed until the time you got up in the morning?	0	1	2	3	4	5

DRUG CONTRIVE**Mustadi Kalpa Ingredients**

1. *Musta*
2. *Abhaya*
3. *Devadaru*
4. *Moorva*
5. *Yashtimadhu*

Method of preparation: Each of the ingredients were taken and cleaned then powdered separately and then they were mixed thoroughly and were sieved through a cloth to acquire *Vastra galitha churna*.

Packing: 100 gm of *Vastra galitha churna* of *Mustadi kalpa* was packed in a moist free plastic container.

Amayika prayoga: *Mutraghata*, *Mutrastheela*, *Ashmari*, *Mutrakrucchra* etc.

Dose: 10 gms TDS in divided doses.

Anupana: *Ushna jala*.

The above formulation is mainly having *Deepana*, *Pachana*, *Mutrala*, *Vatanulomana*, *Shothahara*, action and it is supplemented by *Rasayana*, *Balya*

OBSERVATIONS AND RESULTS:**Table 1: Age in years**

S.No.	Age	No. of Patients	Percentage
1	40-50	3	10.00%
2	51-60	20	66.66%
3	61-70	7	23.33%

effect and that is what needed in the management of the disease *Mutraghata* [8].

Pathya-Apathya

Vegetables are associated with decreased risks of BPH and lower urinary tract symptoms. Patients suffering from urinary disorders *Takra*, Cow's milk, Guava, drumstick pods, *Pancha Jeeraka*, *Shali* rice, *Draksha*, coconut water, barley water, Jaggery (i.e., *Purana guda*), *Khanda* (i.e., brown sugar), sugarcane juice, Coriander etc are beneficial. Apart from these, substances or drinks which have diuretic property will be helpful in the management of urinary disorders.

Guru (i.e., difficult to digest), *Vidahi* (i.e., produces burning in the GIT) and *Abhisyandi* (i.e., obstructing fine channels) substances like curd, peas, cauliflower, brinjal, dry mango powder and over exercise etc are not suitable for patients suffering with urinary diseases [9].

Table 2: Addiction

Addiction	No. of Patients	Percentage
Smoker	8	26.67%
Tobacco	6	20.00%
Alcoholic	13	43.33%
None	3	10.00%

Table 3: Bowel Habit

Bowel habit	No. of Patients	Percentage
Regular	8	26.67%
Constipated	22	73.33%

Table 4: Prakriti

Prakriti	No. of Patients	Percentage
Vata – pittaja	18	60.00%
Vata – kaphaja	8	26.67%
Pitta – kaphaja	4	13.33%

Table 5: Treatment efficacy

Variable	Mean		SD	SE	t- value	p - value	Remark
	BT	AT					
Incomplete voiding	3.15	0.20	0.80	0.17	16.39	<0.001	HS
Frequency	3.05	0.45	0.73	0.16	15.82	<0.001	HS
Intermittency	0.55	0.10	0.58	0.13	3.41	<0.001	HS
Urgency	2.85	1.30	1.05	0.23	5.51	<0.001	HS
Weak stream	3.15	0.25	0.94	0.21	13.74	<0.001	HS
Strangury	0.65	0.30	0.47	0.10	3.28	<0.001	HS
Nocturia	3.00	0.75	0.82	0.18	12.13	<0.001	HS

Table 6: Urine Flow Rate

Urine flow rate (ml/sec.)	No of patients		Percentage	
	BT	AT	BT	AT
>15	8	14	26.67%	46.66%
10-15	21	16	70%	53.33%
<10	1	0	3.33%	0.00%

Table 7: Residual Urine

Residual urine	No of patients		Percentage	
	BT	AT	BT	AT
50-100	11	18	36.67%	36.66%
101-150	9	9	30.00%	30.00%
151-200	10	3	33.33%	33.33%

DISCUSSION

Age wise distribution of patients shows that most of them were from the age group of 51-46 years and addiction wise distribution shows most of

the patients were alcoholic (43.33%) and with constipated bowel habits (73.33%). Majority of the patients were having Vata-pittaj (60.00%) and

Vata-kaphaj (26.67%) *Prakriti*. Based upon the above observations, the effect of therapy on all the parameters if IPSS score i.e. incomplete voiding, frequency, nocturia, urgency, weak stream, strangury and intermittency in the patients of *Vatastheela* is found significant as the 'p' value in all the parameters is less than 0.05. In *Vatastheela*, the vitiated *Apana vayu* when takes shelter in the space between *Basti* and *Shakrut marga* (i.e. *Guda*) produces *Ghana*, *Achala*, *Unnata astheelavatha granthi*. The growth in turn produces obstruction to the passage of *Vitta*, *Mutra*, *Anila* and leads to *Aadhmana* of the *Basti* and also pain in the region of *Basti*. In *Mustadi kalpa* most of the drugs have *Kashaya* and *Tikta rasa*, *Ushna veerya*, *Madhura vipaka* and *Kapha vata shaamaka* and this improvement can be understood on the basis of *Shothhara*, *Balya*, *Tridoshhara* and *Vatanuloman* properties of the drug, resulting into decrease in the symptoms and allowing free and comparatively more passage of urine than earlier. Although the size of prostate was not decreased after the treatment, but there is relatively increase in urine flow rate and decrease in residual urine.

CONCLUSION

Benign prostatic hyperplasia is a very common disorder in elderly male persons. It affects the quality of life and physiology of urination. Prolonged BPH may result in bladder calculi, haematuria and retention of urine may leads to hydro-ureter, hydronephrosis and lastly renal insufficiency. Ayurveda has plenty of drugs quite helpful by acting on *Mootravaha srotas* (renal system) that are diuretic, anti-inflammatory, analgesic and antiseptic in nature. Ayurvedic medication, suitable dietary pattern and lifestyle modification contributes in the prevention of BPH. This study highlighted that *Mustadi kalpa* is safe and effective in symptomatic management of *Mootraghata* (BPH) by virtue of its *Shothhara*, *Balya*, *Tridoshhara* and *Vatanuloman* properties. As this is a pilot study, it should be tried in more number of patients for its validation.

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Cite this article as:

Vishal Khanna, Asheesh Khajuria, Ankush Bhardwaj, Abineet Raina, Anjali Sharma. Effect of Mustadi Kalpa in the Management of Mutraghat w.s.r. to Benign Prostatic Hyperplasia. *AYUSHDHARA*, 2017;4(4):1243-1247.

Source of support: Nil, Conflict of interest: None Declared

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