

A Comparative Clinical Study of Kanchar Guggulu and Varuna Shigru Guggulu along with Bala Taila Matra Basti in the Management of *Mootraghata* w.s.r. to Benign Prostatic Hyperplasia

Priyanka Chauhan*, T. S. Dudhamal, Snehal Sonani, Priyal Ghoniya

ABSTRACT

Background: Benign prostatic hyperplasia (BPH) is a benign enlargement of prostate gland commonly found in elderly men (50% found above 40 year of age) and responsible for major affecting factor for quality of life. The overall incidence rate of BPH is 15/1000 men per year. The present treatment modalities have their own complication and limitations. Hence, here is a need to approach a treatment aspect which can minimize the complication along with major relief effect. According to Ayurveda, considering *Vata dosha (ApanaVata)* as a main culprit for BPH/*Mootraghata*, line of treatment was planned to evaluate and compare the clinical efficacy of *Kanchar Guggulu* and *Varuna Shigru Guggulu*, along with *Matra basti* of *Bala Taila svata-kaphahar, mutrakrichahara, Lekhan, and shothahara* along with oral medication.

Materials and Methods: The patients having signs and symptoms of *Mootraghata*/BPH were registered and allocated into two groups by computer generated randomization method. Patients were treated with *Kanchar Guggulu orally* (1 g thrice a day) in Group A ($n = 40$) and (1 g thrice a day) Group B ($n = 41$) for 21 days. *Matra basti* with 60 ml *Bala Taila* once a day was given in both groups for 21 days. **Results:** The result was drawn using appropriate statistical testes in objective as well subjective parameters and also to compare efficacy of both group treatment modalities. The trial drug depicted highly significant results in international prostate symptoms score (IPSS) symptoms, average urine flow rate and prostate size, and post-void residual urine (PVRU) in Group A, whereas Group B possessed highly significant effect on all the mentioned IPSS symptoms with improvement in the QOL, but significant changes were observed in PVRU. **Conclusion:** Final study concluded that *Kanchar Guggulu* and *Varuna Shigru Guggulu* orally along with *Bala Taila Matra basti* is safe and effective in the management of *Mootraghata* (BPH).

Keywords: *Bala Taila*, Benign prostatic hyperplasia, BOO, *Kanchar Guggulu*, *Matra Basti*, *Mootraghata*, *Varuna Shigru Guggulu*
Asian Pac. J. Health Sci., (2022); DOI: 10.21276/apjhs.2022.9.4.75

INTRODUCTION

The benign prostatic hyperplasia (BPH) is a senile disorder in men which presumes the growth of the prostatic gland, situated at the emergence of urethra, that is, base of the urinary bladder. The changes in the level of hormones especially androgens and estrogens cause the growth/neoplastic changes in the prostatic gland. As per the etiopathogenesis of *Mootraghata* is concern, there is disturbed function of *Apanavayu* along with the vitiation of *kapha* and *Pitta* produces *Ama*, which ultimately causes *Srotoavarodha*. The vitiated *Doshas* travel through *Sukshmasrotasa* and finally lodge in *Basti*, where on further, vitiation of *Apanavayu* leads to *Mootraghata*. In the relation to above, Sushruta has mentioned relationship between the *Basti* and *Vatadosha* to produce different types of urinary disorders.^[1] Clinically, BPH shows obstructive as well as irritating features of the lower urinary tract due to enlarged prostate gland. Since BPH is not a rapid progressive disease so the management of BPH can be achieved by adapting conservative measure and lastly surgical intervention. Prostatectomy, that is, surgical removal of prostate gland is a golden treatment for BPH, but it may leads to many complications such as post-operative morbidity, impotence, and retrograde ejaculation. Apart from that, a cumulative probability for re-operation has been estimated up to 15% of operated cases within 8–10 years. Hence, considering the conservative methods from both modern and Ayurveda point of views are seems to be more practicable. Although administration of conservative modern treatment, that is, hormone therapy has good advantages but have side effects such as loss of libido,

Department of Shalya Tantra, ITRA, Jamnagar, Gujarat, India.

Corresponding Author: Priyanka Chauhan, PhD Scholar, ITRA, Jamnagar, Gujarat, India. E-mail: drpriyankachauhan24@gmail.com

How to cite this article: Chauhan P, Dudhamal TS, Sonani S, Ghoniya P. A Comparative Clinical Study of *Kanchar Guggulu* and *Varuna Shigru Guggulu* along with *Bala Taila Matra Basti* in the Management of *Mootraghata* w.s.r. to Benign Prostatic Hyperplasia. *Asian Pac. J. Health Sci.*, 2022;9(4):401-404.

Source of support: Nil

Conflicts of interest: None.

Received: 23/09/2022 **Revised:** 25/09/2022 **Accepted:** 27/09/2022

impotence, and gynecomastia. The cost of treatment is relatively more, because these medicines are recommended for life time. Ayurveda has the potency with dealing natural and holistic approach of treatment, which may be more effective. *Vatadosha* is the main culprit to produce the BPH/*Mootraghata*; hence, in this study, the line of treatment is instituted as *vata-kaphahar, mutrakrichahara, Lekhan, and shothahara* in the form of *basti*.

MATERIALS AND METHODS

Selection of Patients

A total 81 patients of *Mootraghata* (BPH) were selected irrespective of their religion, occupation from outpatient department (OPD),

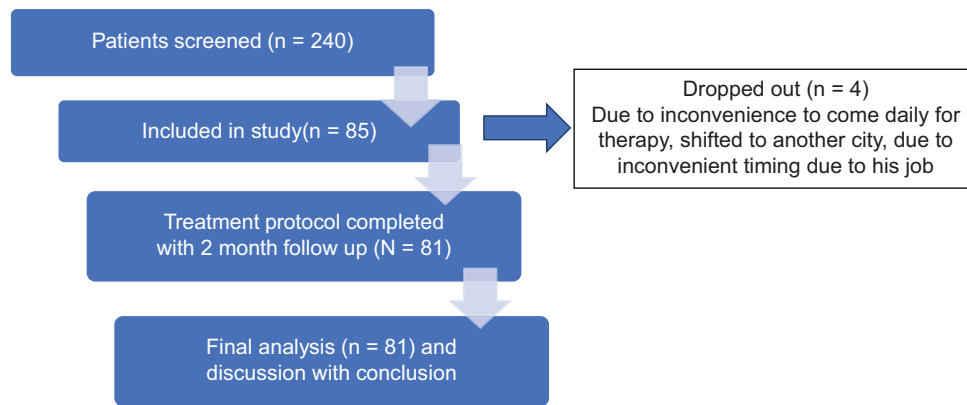


Figure 1: Time line of the study

Table 1: Assessment of effect of therapy on IPSS in Group A (n=41) and Group B (n=41)

International prostate symptoms score (AUA)	Group A				Group B					
	Medium		% Relief	Z	P	Medium		% Relief	Z	P
	BT	AT				BT	AT			
Incomplete emptying	4.00	2.00	52.08	-5.40	<0.001	3.00	2.00	55.63	-5.662	<0.001
Frequency	3.50	2.00	54.92	-5.59	<0.001	3.00	2.00	52.73	-5.790	<0.001
Intermittency	3.00	1.00	58.82	-5.51	<0.001	3.00	1.00	56.11	-5.55	<0.001
Urgency	3.00	1.00	57.77	-5.59	<0.001	4.00	1.00	52.24	-5.661	<0.001
Weak stream	3.00	1.50	54.19	-5.60	<0.001	3.00	1.00	57.55	-5.68	<0.001
Straining	3.00	1.00	56.58	-5.32	<0.001	3.00	1.00	54.61	-5.53	<0.001
Nocturia	3.00	1.00	61.36	-5.54	<0.001	3.00	1.00	57.03	-5.502	<0.001
Quality of life	4.00	2.00	45.88	-5.39	<0.001	4.00	2.00	46.55	-5.671	<0.001

Here, BT: Before treatment, AT: After treatment

and inpatient department (IPD) of Shalya Tantra, I.P.G.T and R.A. Hospital, Jamnagar. Complete timeline of patient's selection is mentioned in Figure 1. Patients having complaints of increased frequency/urgency, hesitancy, decreased urine flow rate/weak stream, acute/chronic urine retention, scanty micturition, painful micturition, dysuria, and burning micturition were randomly divided into two groups by computerized randomization method.

Inclusion Criteria

Patients having signs and symptoms of BPH of the age group of 40–70 years, controlled cases of diabetes mellitus, and controlled hypertension patients were included in this study.

Exclusion Criteria

Patients of <40 years, patients of malignancy, congenital deformities of urogenital tract or any abdominopelvic pathology, systemic diseases like uncontrolled hypertension and uncontrolled diabetes, uncontrolled TB, heart diseases, paralysis, parkinsonism, and positive cases of HIV, VDRL, and HbsAg were excluded from this study.

Investigations

Complete blood analysis (hemogram), erythrocyte sedimentation rate, random blood sugar, urine routine, and microscopic examination were done only before treatment for analysis purpose. Prostate specific antigen (PSA), serum testosterone, blood urea, Sr. creatinine, ultrasonographic examination of the prostate gland and KUB, and uroflowmetry (by Uro-flow meter) were done before and after treatment for assessment of therapeutic effect.

Ethical Clearance

The study was started after approval of the Institutional Ethics Committee, vide letter no. PGT/7/-A/Ethics/2017- 18/3042 on dated February 19, 2018, and registered in CTRI Reg. No.: CTRI/2018/04/013226.

Methodology

In Group A (n = 40), patients were treated with *Kanchanar Guggulu* orally (1 g thrice a day) for 21 days. In Group B (n = 41), patients were treated with *Varuna Shigru Guggulu* orally (1 g thrice a day) for 21 days. In both groups, *Matra basti* was a common treatment modality. All the patients were followed up for 60 days, after completion of the treatment at interval of every 15 days.

RESULTS

Major observed patient were ranging from the age of 61–70, that is, 58.02%. Majorly chief complaint found in this study was of increased frequency and weak stream (stop and start), that is, 88% and 62%, respectively, with the enlargement of both lateral lobes in 42%, while 36% and 11% patients showed enlargement in the right and left lateral lobe, respectively.

Therapeutic effect was assessed for subjective findings by IPSS scoring and objective changes by serological markers, that is, PSA and serum testosterone findings.

The results were evaluated using paired "t"-test for objective parameter of both groups. The Wilcoxon Signed Rank-Test was applied for subjective parameter of both groups. The Unpaired "t"-test and Wilcoxon Rank Sum Test were applied to evaluate

comparative effect of therapy for objective parameters and subjective parameters, respectively, between two groups.

It was observed that relief in IPSS symptoms in Group A and Group B was highly significant ($P < 0.001$) [Table 1] and no statistically insignificant difference ($P > 0.05$) observed within both groups in subjective parameters [Table 2]. Same in other objective parameters, that is, prostate size, post-void residual urine (PVRU), average urine flow rate (AUFR) Group A was highly significant ($P < 0.001$), whereas Group B rendered statistically highly significant ($P < 0.001$) effect on size of enlarged prostate gland and AUFR and significant ($P < 0.05$) changes were observed in PVRU volume [Table 3]. It was found that the difference between both groups ($P > 0.05$) in size of prostate, PVRU, and UFR which were statistically insignificant [Table 4]. Effect of therapy on serological findings had shown insignificant ($P > 0.05$) changes in all the findings of Group A and Group B [Table 5].

The overall effect of treatment in two groups ($n = 81$) reveals that total 81 patients were registered and completed the treatment and follow-up. It was found that out of 81 patients, two patients, that is, 2.47% have shown complete cured and 10 patients, that is, 12.35% have shown markedly improvement followed by 47 patients, that is, 58.02% have shown mild improvement after completion of the course. There were 22 patients, that is, 27.16% in unchanged category [Table 6]. The average effect in overall

improvement, that is, 36.33% was noted in Group A, while 37.85% effect was noted in Group B [Table 7].

DISCUSSION

In the present study, maximum 58.00% of patients were belonged to age group between 61 and 70 years. In Ayurveda, the age between 61 and 70 years is considered under *Vridhha vastha*, in which *vata* vitiation is more due to *vata* predominance in this age which is responsible for *Mootraghata*.^[2]

The drug *Kanchanar Guggulu* having the properties of *Vatkapha-Shamaka*, *Pachana*, *Bastishodhana*, *Mootralaa*, *Grahee*, *Pramathee*, etc.^[3] Might have helped to enhance the function of bladder and become helpful in reducing the size of the prostate. *Kanchanar Guggulu* contents, that is, *Triphala* and *Trikatu* which contain ascorbic acid, help to relax the smooth muscle of the prostate and bladder neck to relieve pressure and improve urine flow rate.

Varuna Shigru Guggulu has *vata-kapha shamaka* properties due to its *mootrala*, *grahee*, *pramathee*, and *vata-kapha shamaka* pharmacological actions played key role in breaching *samprapti* of *Mootraghata*. The drug *Varuna* is one ingredient of this formulation contains kaempferol and quercetin flavonoids. These chemical constituents act as inhibition of estrogenic receptor. The pharmacological studies on *Varuna* and *Shigru* are shown potent diuretic effect and anti-inflammatory, antimicrobial, CNS stimulant, smooth muscle relaxant, 5- α reductase inhibitor, and juvenile hormonal activity.^[4] In Ayurveda, it is mentioned that *Matra basti* is choice of treatment in controlling *vata dosha* in all types of *Mootraghata*.^[5] Hence, it can be said that the function of detrusor muscle of bladder might be improved by controlling *Apanavayu* with the help of *Matra basti*. *Matra basti* having the potency to pacify the vitiated *ApanaVata* which is prime factor for manifestation of *Mootraghata*. The properties such as *Balya*, *Rasayana*, and *Shothahara* of used *Bala Taila* might be helpful to improve the function of detrusor muscle. *Atibala* is an important

Table 2: Comparison in results of the two groups (n=81)

International prostate symptoms score (AUA)	W	T+	P*	P
Incomplete emptying	844.0	1616.00	0.813	>0.05
Frequency	774.5	1685.00	0.645	>0.05
Intermittency	773.5	1686.5	0.644	>0.05
Urgency	846.5	1613.5	0.794	>0.05
Weak stream	929.5	1530.5	0.267	>0.05
Straining	739.0	1721.0	0.422	>0.05
Nocturia	714.5	1745.5	0.282	>0.05
Quality of life	809.5	1650.5	0.920	>0.05

Table 3: Effect of therapy on objective parameters in Group A (n=40) and Group B (n=41)

Objective parameters	Group A				Group B					
	Mean score		% Relief	T*	P	Mean score		% Relief	T*	P
	BT	AT				BT	AT			
Prostate size and volume	52.95	41.47	21.67	5.664	<0.001	49.39	39.31	35.23	5.678	<0.001
Post-void residual urine volume	16.42	7.90	51.90	3.690	<0.001	23.92	10.85	75.00	3.368	<0.05
Average urine flow rate	2.48	4.57	45.68	-6.021	<0.001	2.429	4.227	16.23	-6.344	<0.001

Here, A: Group A, B: Group B

Table 4: Comparison of effect of therapy on objective criteria (n=81)

Objective parameters	Mean score		SD		SEM		t	P
	A	B	A	B	A	B		
Prostate size and volume	11.47	10.07	12.81	11.35	2.026	1.774	0.521	>0.05
Post-void residual urine volume	8.525	13.07	14.61	24.85	2.311	3.881	-1.001	>0.05
Average urine flow rate	2.090	1.798	2.195	1.814	0.347	0.283	0.654	>0.05

Table 5: Effect of therapy on serological findings in Group A (n=41) and Group B (n=41)

Investigations	Group A				Group B					
	Mean score		T*	P	Mean Score		T*	P		
	BT	AT			BT	AT				
Sr. PSA	1.76	1.43	19.09	1.531	>0.05	2.23	3.064	-7.97	-0.796	>0.05
Blood urea	24.90	23.45	5.82	1.399	>0.05	25.63	24.14	5.80	1.342	>0.05
Sr. Creatinine	4.42	4.469	4.53	-1.732	>0.05	1.22	1.23	-1.2	-0.294	>0.05
Uric acid	1.158	1.105	-5.98	1.291	>0.05	4.307	4.554	-5.71	-2.189	>0.05

Table 6: Overall effect of therapy in two groups: (n=81)

Result on effect of therapy	Group A		Group B		Total	
	n	%	n	%	n	%
Complete cured	0	0	2	4.87	2	2.47
Markedly improvement	6	15	4	9.75	10	12.35
Mild improvement	23	57.5	24	58.53	47	58.02
Unchanged	11	27.5	11	26.82	22	27.16

Table 7: Comparative overall average effect of therapy in percentage

Group	n	Result on effect of therapy in %
Group A	40	36.33
Group B	41	37.85

ingredient of *Bala Taila* which contains Saponin as a chemical component. It has diuretic and anti-inflammatory actions. Hence, it is obvious that *Bala Taila* was improved the bladder function by increasing the bladder tone as well as reducing the size of the prostate. Ultimately, the bladder out flow obstruction was improved and overall the quality of life was found better after *Matra Basti*. During the entire duration of therapy, there was no any adverse/untoward effect or adverse drug reaction observed in Group A and Group B.

CONCLUSION

The cardinal symptoms of BPH such as increased frequency, nocturia, weak stream, and incomplete voiding were relieved completely in almost all patients of both groups. In comparison between both groups, overall effect on signs was better in Group B

than Group A. No any adverse effects were reported by any of the patients during the course of treatment. Finally, the study can be concluded that *Kanchanar Guggulu* and *Varuna Shigru Guggulu* orally along with *Bala Taila Matra basti* are safe and effective in the management of *Mootraghata* BPH.

FINANCIAL SUPPORT AND SPONSORSHIP

This study was financially supported by IPGT and RA, Gujarat Ayurved University, Jamnagar, Gujarat, India.

ACKNOWLEDGEMENT

The author's would like thanks to Prof. AB Thakar, Director ITRA for providing all the facility in OPD and IPD to conduct this clinical trial.

REFERENCES

1. Aachaarya VY. Sushruta Samhitaa with Nibandhasangraha Commentary. Ch. 3/27-28. Varanasi: Chaukhamba; 2008. p. 280.
2. Aachaarya VY. Sushruta Samhitaa with Nibandhasangraha Commentary. Ch. 58/26. Varanasi: Chaukhamba; 2008. p. 789.
3. Vidhyasagar PS. Sharangdhar Samhita, Pandita with Dipika and Goodhaarthadipikaa commentary. 1st ed., Ch. 7/95. Varanasi: Chaukhambha Surbharti Praksana; 2006.
4. Patel J. Varuna Shigru Guggulu and Bala Taila Matra Basti in the management of mootraghata (benign prostatic hyperplasia) - An observational clinical study. Int Ayurvedic Med J 2019;7:1299-1305.
5. Aachaarya VY. Sushruta Samhitaa, with Nibandhasangraha Commentary. Ch. 58/26. Varanasi: Chaukhamba; 2008. p. 792.