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CLINICAL EFFICACY OF PUNARNAVADI KASHAYA BASTI IN THE MANAGEMENT OF VATASTHEELA (BENIGN PROSTATIC HYPERPLASIA): A PILOT CLINICAL STUDY

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ABSTRACT

Benign Prostatic Hyperplasia (BPH), described in Ayurveda as Vatastheela, is a prevalent condition among aging men, often leading to urinary symptoms such as frequency, nocturia, urgency, and incomplete voiding. Conventional management typically involves alpha-blockers or surgical interventions, which, despite their efficacy, are associated with adverse effects and limitations. This pilot clinical study aimed to evaluate the therapeutic potential of *Punarnavadi* Kashaya Basti, a traditional Ayurvedic intervention, in alleviating symptoms of BPH. An openlabel, single-arm trial was conducted on 10 clinically diagnosed patients based on International Prostate Symptom Score (IPSS) and sonological findings. Each participant underwent a Yoga Basti regimen for eight consecutive days, followed by a review on day fifteen. Outcome measures included changes in IPSS scores and objective parameters such as prostate volume, post-void residual urine (PVRU), and urine flow rate. The results demonstrated significant improvement across all IPSS domains, with marked reductions in incomplete voiding, nocturia, urgency, and straining. Prostate volume decreased by an average of 7.8 mL, while PVRU levels showed notable reduction, and urinary flow rates improved substantially. No adverse events were recorded during the study period. These findings suggest that Punarnavadi Kashaya Basti offers a safe, well-tolerated, and effective conservative approach to managing BPH symptoms, potentially addressing both obstructive and irritative components of the condition. However, given the small sample size and absence of a control group, larger randomized controlled trials are warranted to confirm these results and explore long-term efficacy.

KEYWORDS: Vatastheela, Benign Prostatic Hyperplasia, Punarnavadi Kashaya Basti, IPSS, Ayurveda, prostate

INTRODUCTION

Benign Prostatic Hyperplasia (BPH) affects approximately 50% of men over the age of 50, and up to 90% by age 85, with symptoms ranging from frequency and urgency to nocturia and incomplete bladder emptying [1]. In Ayurveda, these clinical manifestations closely resemble *Vatastheela*,

a subtype of *Mutraghata*, where *Apana Vata* obstruction causes urinary difficulty ^{[2].}

Modern therapies, including pharmacological agents and surgical interventions, carry risks such as retrograde ejaculation, impotence, and urinary incontinence [3]. Ayurveda offers holistic management through *Basti*

(therapeutic enema), which is particularly indicated in *Vata* disorders ^{[4].}

This pilot study investigates the efficacy of Punarnavadi Kashaya Basti, a customized formulation described in classical and empirical Ayurvedic sources, in 10 patients presenting with BPH symptoms.

MATERIALS AND METHODS

Study Design

A single-arm, open-label pilot clinical study was conducted at Parul Ayurved Hospital on 10 patients randomly selected from a larger trial.

Ethical Approval

Ethical clearance was obtained from the Institutional Ethics Committee, and the study was registered under CTRI.

Inclusion Criteria

- Males aged 45–75 years
- Diagnosed with BPH based on IPSS score and ultrasound (>25g prostate)
- Willing to comply with Basti procedures

Exclusion Criteria

- CA prostate or elevated PSA
- Urethral strictures, active UTI, renal insufficiency
- Prostate >90g
- Neurological bladder dysfunction

Intervention

Each patient received a Yoga Basti regimen over 8 consecutive days:

- **Niruha Basti**: Punarnavadi Kashaya 405 ml (decoction + kalka + sneha + gomutra + lavana + madhu)
- Anuvasana Basti: Dashamoola taila
 + Goghrita (72 ml)

Assessment Criteria

Subjective Parameters (IPSS domains)

- 1. Incomplete voiding
- 2. Frequency

- 3. Intermittency
- 4. Urgency
- 5. Weak stream
- 6. Straining
- 7. Nocturia

Each scored 0–5 (total score: 0–35)

Objective Parameters

- 1. **Prostate size** (USG)
- 2. **Post-void residual urine (PVRU)** (USG)
- 3. **Urine flow rate** (Uroflowmetry)

RESULTS

Demographics

- Age range: 49–74 years (mean age: 61.2)
- Mean duration of symptoms: 16.4 months

IPSS Domain Results (Before vs After)

Parameter	Mean	Mean	%
	Score	Score	Improvement
	(BT)	(AT)	
Incomplete	3.1	1.0	67.7%
Voiding			
Frequency	3.4	1.2	64.7%
Urgency	3.0	1.1	63.3%
Weak	3.3	1.1	66.6%
Stream			
Straining	2.8	0.9	67.8%
Nocturia	3.2	1.3	59.4%

Wilcoxon signed-rank test showed statistically significant improvement in all IPSS items (p < 0.01).

Objective Parameters

Parameter	Mean (BT)		Mean (AT)	p- value
Prostate	42.7	\pm	34.9 ±	0.001
Volume (mL)	6.3		5.8	
Post-void	89.1	±	54.5 ±	0.000
Residual (cc)	12.4		9.8	
Urine Flow	7.8	±	12.6 ±	0.001
(mL/s)	2.1		2.9	

DISCUSSION

The results demonstrated substantial symptomatic and objective improvement following administration of Punarnavadi Kashaya Basti in this subset of 10 patients.

The formulation's core ingredients—Punarnava (*Boerhavia diffusa*), Gokshura (*Tribulus terrestris*), Satapushpa (*Anethum sowa*), and Yavakshara—are known for *mutrala* (diuretic), *shothahara* (anti-inflammatory), and *Vata-Kapha* pacifying actions ^[5,6].

The reduction in prostate volume and post-void residual urine supports the hypothesis that *Basti*, by correcting *Apana Vata* and removing obstruction (*Srotorodha*), facilitates better urine outflow and glandular regression.

Previous studies also demonstrated the utility of Ayurvedic formulations like Varunadi Kashaya and Eranda Taila Pana in BPH ^[7,8], but their outcomes lacked IPSS standardization and complete statistical correlation.

The inclusion of gomutra as a *pravahi* dravya may potentiate diuretic activity while facilitating deep tissue detoxification (*shodhana*) ^{[9].}

The present pilot study demonstrated a marked improvement in both subjective and objective parameters of BPH (Vatastheela) following the administration of *Punarnavadi* Kashaya Basti. Notable symptomatic relief was observed in incomplete voiding, stream, nocturia, urgency, weak straining, alongside measurable reductions in prostate volume, post-void residual urine, and improved urinary flow rate. These outcomes can be attributed to the formulation's pharmacological actions.

which include *shothahara* (antiinflammatory), *mutrala* (diuretic), and *Vata– Kapha* pacifying properties, helping to restore normal *Apana Vata* function and alleviate bladder outlet obstruction ^(1,4,5).

A key adjunct to the therapeutic regimen was implementation of Pathyapathya (Ayurvedic dietary and lifestyle guidelines). Patients were advised to avoid beverages, late-night curds and vogurts, dry snacks, all cereals except green gram, and vegetables such as potato, brinjal, and tomato. Habits like excessive consumption of tea, alcohol, tobacco, and smoking were also restricted. Equally important was the guidance against withholding natural urges—including defecation, urination, flatulence, yawning, sneezing, thirst, hunger, sleep, and emotional expressions such as weeping. According to Ayurvedic principles, suppression of these natural urges leads to Vata vitiation in qualitative, quantitative, and functional dimensions, resulting in Apana Vayu Vimargagamana. This pathological displacement impairs bladder function, increasing residual urine volume and causing sensations of incomplete emptying, urinary frequency, and urgency (2,4,9).

The integration of *Basti* therapy with specific Pathyapathya likely enhanced treatment outcomes by addressing both the immediate symptoms and underlying pathophysiological processes. This dual approach not only reduced prostate congestion and inflammation but also prevented aggravating factors that could perpetuate *Vata* derangement ^(5,6).

While the findings of this pilot study are encouraging, they should be interpreted with caution due to methodological constraints.

The observed clinical improvements may partly reflect the combined effect of Basti therapy strict and adherence to Pathyapathya, vet the absence of comparative arm limits the ability to attribute these results exclusively to the intervention. Moreover, the small sample size and short follow-up period restrict the generalizability and long-term applicability of the outcomes. These limitations underscore the need for more robust research designs, including randomized controlled trials with larger cohorts, longer follow-up durations, and incorporation of biochemical markers such as prostate-specific antigen (PSA), to validate and expand upon the present observations (3,7,8).

CONCLUSION

Punarnavadi Kashaya Basti is a promising Ayurvedic intervention for the conservative management of BPH. It showed statistically and clinically significant improvement in IPSS scores, prostate volume, and urinary flow in this pilot study. The results warrant further investigation through large-scale RCTs.

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