WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
Coden USA: WJPRAP Impact Factor 8.453
Volume 15, Issue 3, 1118-1127. Case Study ISSN 2277–7105

TO EVALUATE THE ROLE OF DASHAMOOLA KASHAYA BLADDER WASH IN THE MANAGEMENT OF POST-VOID RESIDUAL URINE WITH SPECIAL REFERENCE TO BENIGN PROSTATIC HYPERPLASIA: A CASE STUDY

Dr. Rahul Gowda M. J.[1]*, Dr. K. M. Sweta[2]

[1]*Post Graduate Scholar, Dept. of Shalya Tantra, Sri Sri College of Ayurvedic Science and Research, Bangalore, Karnataka, India.

[2]Professor & HOD, Dept. of Shalya Tantra, Sri Sri College of Ayurvedic Science and Research, Bangalore, Karnataka, India.

Article Received on 05 Jan. 2026,
Article Revised on 25 Jan. 2026,
Article Published on 01 Feb. 2026,

https://doi.org/10.5281/zenodo.18438118

***Corresponding Author**

Dr. Rahul Gowda M. J.

Post Graduate Scholar, Dept. of Shalya Tantra, Sri Sri College of Ayurvedic Science and Research, Bangalore, Karnataka, India.

How to cite this Article: Dr. Rahul Gowda M. J.[1]*, Dr. K. M. Sweta[2] (2026). To Evaluate The Role Of Dashamoola Kashaya Bladder Wash In The Management Of Post-Void Residual Urine With Special Reference To Benign Prostatic Hyperplasia: A Case Study. "World Journal of Pharmaceutical Research, 15(3), 1118–1127.

ABSTRACT

Benign Prostatic Hyperplasia (BPH) is a common urological disorder in elderly males, characterized by bladder outlet obstruction and increased post-void residual urine (PVR). Persistent elevation of PVR predisposes patients to recurrent urinary tract infections, upper urinary tract dilatation, and renal impairment. In Ayurveda, such obstructive urinary disorders are described under *Mutraghata*, particularly *Asteela*, caused by *Asthilavat Ghana Granthi* producing *Margavarana* to the flow of urine.[1] *Asteela* is also described under *Vatavyadhi*, indicating a predominant role of *Apana Vata* vitiation. The present case study evaluates the role of *Dashamoola Kashaya* bladder wash in reducing post-void residual urine and improving urinary symptoms in a patient of BPH. Clinical evaluation, ultrasonography, and PVR estimation were used as assessment tools. The intervention showed marked improvement in bladder emptying and reduction in PVR, suggesting that Dashamoola Kashaya bladder wash may be an effective adjunctive therapy in the management of BPH-associated *Mutraghata*.

KEYWORDS: Benign Prostatic Hyperplasia, Mutraghata, Asteela, Dashamoola Kashaya, Bladder wash, Post-void residual urine.

INTRODUCTION

Benign Prostatic Hyperplasia (BPH) is a progressive, non-malignant enlargement of the prostate gland and one of the most common causes of lower urinary tract symptoms (LUTS) in aging males.[2] Enlargement of the prostate and increased smooth muscle tone lead to bladder outlet obstruction, resulting in symptoms such as weak urinary stream, hesitancy, straining, nocturia, and incomplete bladder emptying.[2] Chronic obstruction adversely affects detrusor muscle function, leading to increased post-void residual urine (PVR), which is an important indicator of disease severity and progression.[3]

Post-void residual urine estimation is a valuable parameter in assessing bladder emptying. Although there is considerable inter-individual variation and PVR alone may not clearly differentiate bladder outlet obstruction from impaired detrusor contractility, it provides important clinical information.[4] A PVR greater than 300 ml is considered a potential risk factor for upper urinary tract dilatation and renal impairmen.[4] Ultrasonography is a non-invasive diagnostic modality that provides detailed information regarding prostatic size, shape, lobes involved, weight, PVR volume, calcifications, and helps rule out carcinoma to some extent.[7]

In Ayurveda, obstructive uropathies are described under *Mutraghata*. Among the twelve types of *Mutraghata*, *Asteela* is characterized by obstruction of urine flow due to *Asthilavat Ghana Granthi*, which closely resembles the pathological condition of enlarged prostate.[1] *Asteela* is also described under *Vatavyadhi* as a *Ghana, Ayata, Unnata Asthilavat Granthi* causing *Margavarana* to the flow of urine.[5] The similarity of clinical features described in both contexts suggests a common pathogenesis dominated by *Apana Vata* vitiation.

Dashamoola, a classical Ayurvedic formulation consisting of ten roots, is indicated in *Vatavyadhi* and inflammatory conditions due to its *Vata-Kapha shamaka*, *Shothahara*, *Vedanasthapana*, and *Mutrala* properties.[6] *Dashamoola* is a group of ten herbs *Bilva, Patala, Agnimantha, Shyonaka, Gambhari, Brahati, Gokharu, Kantakari,Prishniparni, Shalaparni.*

Bladder wash (Prakshalana) with Dashamoola Kashaya allows direct therapeutic action on the bladder mucosa, helping to reduce inflammation, improve detrusor function, and restore

the normal physiology of *Apana Vata*. Considering the chronic nature of BPH and limitations of conventional therapies in reducing PVR, the present case study was undertaken.

AIM AND OBJECTIVES

Aim

To evaluate the role of Dashamoola Kashaya bladder wash in the management of post-void residual urine in Benign Prostatic Hyperplasia.

Objectives

1. To assess the effect of Dashamoola Kashaya bladder wash on post-void residual urine.
2. To evaluate improvement in urinary symptoms associated with BPH.
3. To correlate BPH with *Asteela Mutraghata* as described in Ayurveda.

MATERIALS AND METHODS

Study Design

Single case study.

Case Details

Presenting complaints: 50 Years old male patient complains of Poor urinary stream, incomplete bladder emptying, straining during micturition, increased frequency and nocturia since 2 years.

Clinical Examination

General condition: Stable

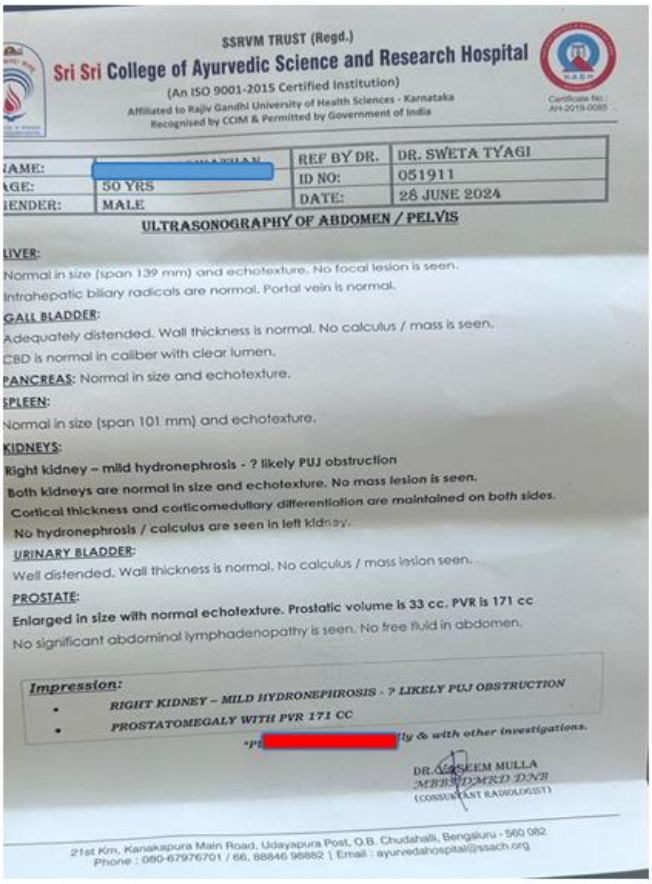
Digital rectal examination: Enlarged, smooth, firm prostate suggestive of BPH

Investigations

Ultrasonography

Ultrasonography was performed to assess prostatic size, weight, lobes involved, post-void residual urine volume, and to rule out malignancy.[7] Prostate weight: 33 g.

PVR (before treatment)	PVR (after treatment)
171 cc.	**25cc**



SSRVM TRUST (Regd.)

Sri Sri College of Ayurvedic Science and Research Hospital

(An ISO 9001-2015 Certified Institution)

Affiliated to Rajiv Gandhi University of Health Sciences - Karnataka

Recognised by CCIM & Permitted by Government of India

NAME:	[redacted]	REF BY DR.	DR. SWETA TYAGI
AGE:	50 YRS	ID NO:	051911
GENDER:	MALE	DATE:	28 JUNE 2024

ULTRASONOGRAPHY OF ABDOMEN / PELVIS

LIVER:
Normal in size (span 139 mm) and echotexture. No focal lesion is seen.
Intrahepatic biliary radicals are normal. Portal vein is normal.

GALL BLADDER:
Adequately distended. Wall thickness is normal. No calculus / mass is seen.
CBD is normal in caliber with clear lumen.

PANCREAS: Normal in size and echotexture.

SPLEEN:
Normal in size (span 101 mm) and echotexture.

KIDNEYS:
Right kidney – mild hydronephrosis - ? likely PUJ obstruction
Both kidneys are normal in size and echotexture. No mass lesion is seen.
Cortical thickness and corticomedullary differentiation are maintained on both sides.
No hydronephrosis / calculus are seen in left kidney.

URINARY BLADDER:
Well distended. Wall thickness is normal. No calculus / mass lesion seen.

PROSTATE:
Enlarged in size with normal echotexture. Prostatic volume is 33 cc. PVR is 171 cc
No significant abdominal lymphadenopathy is seen. No free fluid in abdomen.

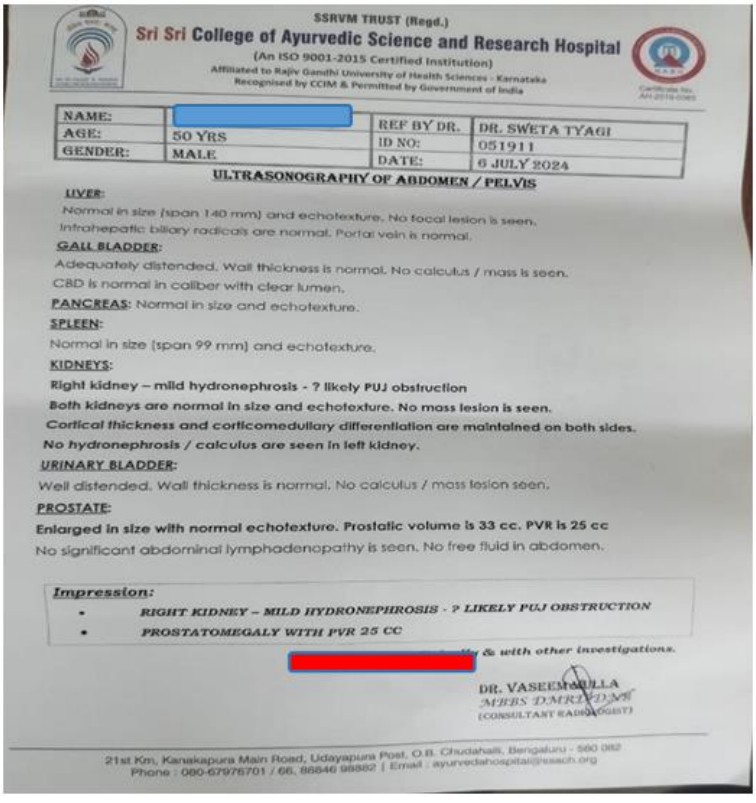
Impression:
- ***RIGHT KIDNEY – MILD HYDRONEPHROSIS - ? LIKELY PUJ OBSTRUCTION***
- ***PROSTATOMEGALY WITH PVR 171 CC***

[redacted] & with other investigations.

DR. VASEEM MULLA
MBBS DMRD DNB
(CONSULTANT RADIOLOGIST)

21st Km, Kanakapura Main Road, Udayapura Post, O.B. Chudahalli, Bengaluru - 560 082
Phone : 080-67976701 / 66, 88846 98882 | Email : ayurvedahospital@ssach.org

Fig. 1: USG Before treatment.



SSRVM TRUST (Regd.)

Sri Sri College of Ayurvedic Science and Research Hospital

(An ISO 9001-2015 Certified Institution)

Affiliated to Rajiv Gandhi University of Health Sciences - Karnataka

Recognised by CCIM & Permitted by Government of India

NAME:	[redacted]	REF BY DR.	DR. SWETA TYAGI
AGE:	50 YRS	ID NO:	051911
GENDER:	MALE	DATE:	6 JULY 2024

ULTRASONOGRAPHY OF ABDOMEN / PELVIS

LIVER:
Normal in size (span 140 mm) and echotexture. No focal lesion is seen.
Intrahepatic biliary radicals are normal. Portal vein is normal.

GALL BLADDER:
Adequately distended. Wall thickness is normal. No calculus / mass is seen.
CBD is normal in caliber with clear lumen.

PANCREAS: Normal in size and echotexture.

SPLEEN:
Normal in size (span 99 mm) and echotexture.

KIDNEYS:
Right kidney – mild hydronephrosis - ? likely PUJ obstruction
Both kidneys are normal in size and echotexture. No mass lesion is seen.
Cortical thickness and corticomedullary differentiation are maintained on both sides.
No hydronephrosis / calculus are seen in left kidney.

URINARY BLADDER:
Well distended. Wall thickness is normal. No calculus / mass lesion seen.

PROSTATE:
Enlarged in size with normal echotexture. Prostatic volume is 33 cc. PVR is 25 cc
No significant abdominal lymphadenopathy is seen. No free fluid in abdomen.

Impression:
- ***RIGHT KIDNEY – MILD HYDRONEPHROSIS - ? LIKELY PUJ OBSTRUCTION***
- ***PROSTATOMEGALY WITH PVR 25 CC***

[redacted] & with other investigations.

DR. VASEEM MULLA
MBBS DMRD DNB
(CONSULTANT RADIOLOGIST)

21st Km, Kanakapura Main Road, Udayapura Post, O.B. Chudahalli, Bengaluru - 560 082
Phone : 080-67976701 / 66, 88846 98882 | Email : ayurvedahospital@ssach.org

Fig. 2: USG After treatment.

Post-Void Residual Urine

PVR was estimated using ultrasonography. Values greater than 50 ml were considered clinically significant.[4]

MATERIALS AND METHODS

Table 1

MATERIALS	***Dashamoola Kwatha Choorna***
Method of Preparation[8]	1 part of *Kwatha Churna* was boiled in 8 parts of water and reduced to1/4th quantity, the prepared *Kashaya* was allowed to cool down to body temperature, later filterd using cora cloth.
DURATION	7 Day
Procedure	1) The subject was taken into supine position. 2)Under aseptic precaution, painting and draping was done to the pubic region. 3) Lox 2% anaesthetic jelly was infiltrated. 4)Infant feeding tube number 10 FG was inserted upto 25 cm . 5) Post void residual urine was drained out . 6) 200 ML of Dashamoola kashaya intravesical instilation was done . 7) Infant feeding tube was removed out .
ASSESSMENT	Assessment will be done on 0^{th} , 7^{th}, 14^{th} day
FOLLOW UP	14^{th} day

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

INTERVENTION

Fig. 7.

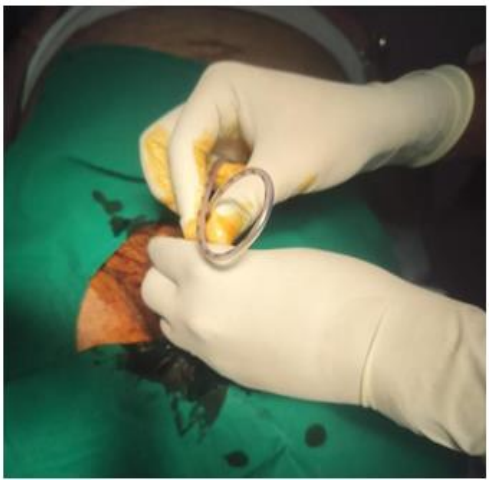


Fig. 8.

Fig. 9.

Fig. 10.

(A) SUBJECTIVE PARAMETERS

Table 2: INTERNATIONAL PROSTATE SYMPTOM SCORE(I-PSS)[9]

	Not at all	Less than 1 in 5 times	Less than half the time	About half the time	More than half the time	Almost always
Incomplete emptying	0	1	2	3	4	5
Frequency	0	1	2	3	4	5
Intermittency	0	1	2	3	4	5
Urgency	0	1	2	3	4	5
Week stream	0	1	2	3	4	5
Straining	0	1	2	3	4	5
	None	1 Time	2Times	3Times	4Times	5Times
Nocturia	0	1	2	3	4	5
Score: 1-7Mild 8-19Moderate 20-35Severe						

(B) OBJECTIVE PARAMETERS

USG with Post-void Residual volume will be assessed before and after treatment.

RESULTS

Table 3.

Parameter	Before Treatment	After Treatment
Post-void residual urine	171 cc	25 cc
Urinary stream	Poor	Improved
Straining	Present	Reduced
Incomplete emptying	Present	Reduced

DISCUSSION

BPH causes bladder outlet obstruction leading to increased detrusor workload and subsequent detrusor dysfunction, resulting in increased post-void residual urine.[2] From an Ayurvedic perspective, this condition closely resembles *Asteela Mutraghata*, where *Apana Vata* vitiation and *Margavarana* play a central role.[1,5]

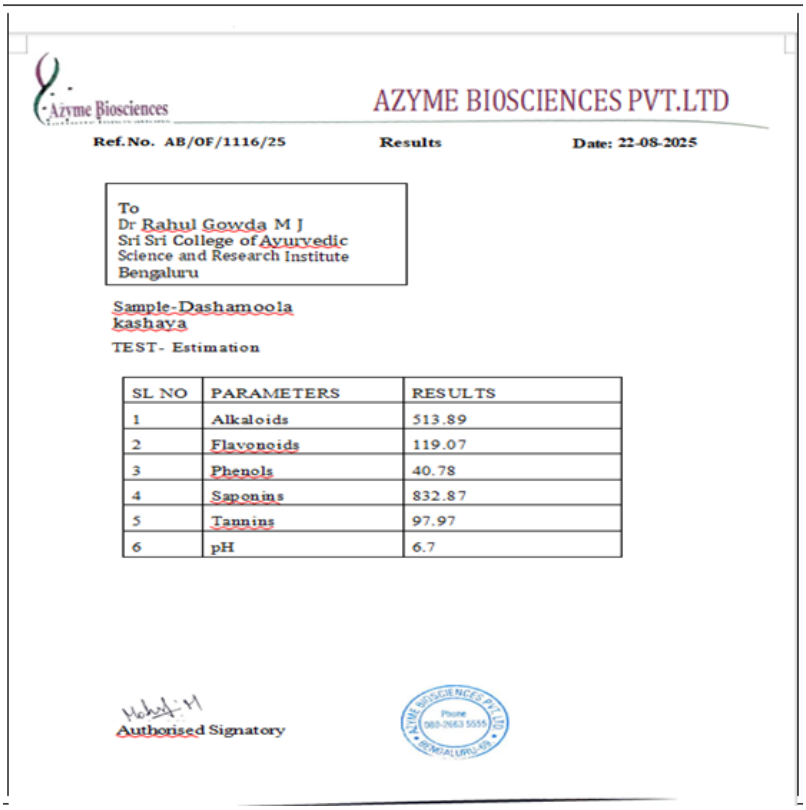
Dashamoola Kashaya possesses *Vata-Kapha shamaka* and *Shothahara* properties and is widely indicated in *Vatavyadhi* and *Mutravaha srotodushti*.[6] Bladder wash with Dashamoola Kashaya provides localized action on the bladder, reducing inflammation and improving detrusor function. This helps restore normal voiding mechanisms and reduces post-void residual urine.

Modern Phytochemical-based Probable Mode of Action of Dashamoola kashaya Bladder wash.

Table 4.

Major Constituents Major Constituents	**Modern Pharmacological Role (Relevant to BPH)Modern Pharmacological Role (Relevant to BPH)** Modern Pharmacological Role (Relevant to BPH)
Saponins (832.87) Saponins	• Potent anti-inflammatory, anti-edematous, and anti-fibrotic actions on prostatic tissue. • • Facilitate cell membrane permeability and tissue cleansing in bladder mucosa.[15,16,17] Potent anti-inflammatory, reduces edema, and anti-fibrotic actions on prostatic tissue. • Facilitate cell membrane permeability and tissue cleansing in bladder mucosa.[10,11,12]
Alkaloids (513.89) Alkaloids	Exhibit smooth muscle relaxant activity.[18] Exhibit smooth muscle relaxant activity.[13]
Flavonoid (119.07) Flavonoid	[1] Antioxidant and anti-inflammatory → protect prostate cells from oxidative stress–induced proliferation.Antioxidants and anti-inflammatory compounds may help to protect prostate cells from proliferation induced by oxidative stress and improve vascular perfusion to the detrusor and prostate tissue. [10,11,12]

	• Improve vascular perfusion to detrusor and prostate tissue.[15,16,17] Antioxidant and anti-inflammatory → protect prostate cells from oxidative stress–induced proliferation. Antioxidant and anti-inflammatory → protect prostate cells from oxidative stress–induced proliferation. • Improve vascular perfusion to detrusor and prostate tissuec Antioxidant and anti-inflammatory → protect prostate cells from oxidative stress–induced proliferation. • Improve vascular perfusion to detrusor and prostate tissue.[15,16,17] • Improve vascular perfusion to detrusor and prostate tissue.[15,16,17]
Tannins	antimicrobial → support urothelial repair and reduce infection-induced inflammation.[10]
Phenols	Contribute to free radical scavenging → limits hyperplasia. • Aid in epithelial regeneration.[14]



Azyme Biosciences

AZYME BIOSCIENCES PVT.LTD

Ref.No. AB/OF/1116/25 Results Date: 22-08-2025

To
Dr Rahul Gowda M J
Sri Sri College of Ayurvedic Science and Research Institute
Bengaluru

Sample-Dashamoola kashaya

TEST- Estimation

SL NO	PARAMETERS	RESULTS
1	Alkaloids	513.89
2	Flavonoids	119.07
3	Phenols	40.78
4	Saponins	832.87
5	Tannins	97.97
6	pH	6.7

Authorised Signatory

Fig. 11.

CONCLUSION

Dashamoola Kashaya bladder wash was effective in reducing post-void residual urine and improving urinary symptoms in a patient with Benign Prostatic Hyperplasia. This therapy may be considered a safe and effective adjunct in the management of *Asteela Mutraghata*. Further clinical studies with larger sample sizes are recommended.

REFERENCES

1. Sushruta. *Sushruta Samhita*. Nidana Sthana, Mutraghata Nidana. Varanasi: Chaukhamba Surbharati Prakashan; Reprint edition.

2. Wein AJ, Kavoussi LR, Partin AW, Peters CA, editors. *Campbell-Walsh-Wein Urology*. 12th ed. Philadelphia: Elsevier, 2021. Chapter: Benign Prostatic Hyperplasia.
3. Jameson JL, Fauci AS, Kasper DL, Hauser SL, Longo DL, Loscalzo J, editors. *Harrison's Principles of Internal Medicine*. 21st ed. New York: McGraw-Hill Education, 2022.
4. Abrams P, Cardozo L, Fall M, Griffiths D, Rosier P, Ulmsten U, et al. The standardisation of terminology in lower urinary tract function: Report from the Standardisation Sub-committee of the International Continence Society. *Neurourol Urodyn*., 2002; 21(2): 167-178.
5. Charaka. *Charaka Samhita*. Chikitsa Sthana, Vatavyadhi Chikitsa Adhyaya. Varanasi: Chaukhamba Bharati Academy; Reprint edition.
6. Sharma PV. *Dravyaguna Vijnana*. Vol. 2. Varanasi: Chaukhamba Bharati Academy, Reprint edition.
7. Sutton D, Robinson PJA, Jenkins JPR, editors. *Textbook of Radiology and Imaging*. 7th ed. London: Churchill Livingstone; Elsevier. Chapter: Ultrasonography of Prostate.
8. Shoba Hiremath G. Panca-VidhaKasaya Kalpana.Ch.9. A text book of Bhaisajya-kalpana. 7th edition reprint. Bangalore: Adiga H K L, 2015; 102.
9. Russo F, Di Pasquale B, Romano G, Vicentini C, Manieri C, Tubaro A, Miano L. International prostate symptom score: medico e paziente a confronto [International prostate symptom score: comparison of doctor and patient]. Arch Ital Urol Androl., 1998 Jun; 70(3 Suppl): 15-24. Italian. PMID: 9707766.Available Wani BA, Mir SA. Basic of Research Methodology and Medical Statistics for Ayurvedic Scholars. Jaipur, Rajasthan: Ayuveda Sanskrit Hindi Pustak Bhandar, 2021; 285,310,315,338,349,364-5,383-4,384-5,436.
10. Ranjana Urs KL, KM Sweta. Conceptual understanding of the Anti-inflammatory effects of Dashamoola with relevant Modern perspective: A critical study. J Ayurveda Integr Med Sci. https://www.jaims.in/jaims/article/view/2178
11. Parekar RR, Bolegave SS, Marathe PA, Rege NN. Experimental evaluation of analgesic, anti-inflammatory and anti-platelet potential of Dashamoola. J Ayurveda Integr Med., 2015; 6: 11-8.
12. Gopal C Nanda, R K Tiwari. Shothahara Activities of Dashamoola Dravyas as an Anti Inflammatory Formulation with Special Reference to Charak- A Review. AYUSHDHARA, 2016; 3(1): 479-485.

13. Xu Z, Zhang M, Dou D, Tao X, Kang T. Berberine depresses contraction of smooth muscle via inhibiting myosin light-chain kinase. Pharmacogn Mag., 2017; 13(51): 454-458. doi:10.4103/pm.pm_13_17.
14. Wani BA, Mir SA. Basics of Research Methodology and medical statistics for Ayurvedic Scholars. Jaipur, Rajasthan: Ayurved Sanskrit Hindi Pusthak Bhandar, 2021; 349.