

Therapeutic Effect of *Vastyamantak Ghrita Uttarbasti* in Recurrent Urethral Stricture: A Case Report

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ABSTRACT

Urethral stricture, commonly resulting from infections, trauma, or iatrogenic causes, continues to present therapeutic challenges despite advances in surgical interventions such as urethroplasty, visual internal urethrotomy and dilatation. In Ayurvedic literature, particularly in the *Sushruta Samhita*, this condition is described under the term *Mutrasanga*. Although urethroplasty remains the gold standard for treatment, the high recurrence rate associated with current surgical modalities highlights the need for adjunct or alternative therapeutic strategies. This case study explores the Ayurvedic management of recurrent urethral stricture through the administration of *Vastyamantaka Ghrita* via *Uttarbasti* (transurethral medicated oil instillation). A 44-year-old man with a history of recurrent strictures and unsuccessful outcomes from multiple dilatation procedures was treated with *Uttarbasti* every fourth day over an eight-week period, initiated post-dilatation. The intervention resulted in significant clinical improvement, including an increase in maximum urinary flow rate (Qmax) from 5.1 mL/s to 14 mL/s, a decrease in Post-Void Residual (PVR) urine volume from 230 mL to 55 mL, and normalisation of urinary frequency. Post-treatment imaging confirmed the absence of residual stricture. These findings suggest that *Vastyamantaka Ghrita* administered via *Uttarbasti* may represent a promising, non invasive therapeutic option for managing recurrent urethral stricture and potentially reducing its recurrence.

CASE REPORT

A 44-year-old male presented with lower urinary tract symptoms persisting for the past seven months. His complaints included increased frequency of micturition, occasional burning sensation during urination, yellow discoloration of urine, straining during voiding, and a markedly weak urinary stream. Initially, the patient was assessed by a urologist and received empirical antibiotic therapy (tablet Norflox TZ BID for 7 days) based on a presumptive diagnosis of urinary tract infection, following findings from the urine routine and microscopic analysis. The urinalysis revealed markedly turbid urine with significant haematuria and pus cells, suggestive of a possible urinary tract infection, underlying inflammation, or structural abnormalities such as urethral trauma or stricture. Temporary relief was noted, but symptoms recurred, including episodes of acute urinary retention. Consequently, catheterisation with a Foley catheter was required. Upon further evaluation, a diagnosis of urethral stricture was made. As a non invasive management option, urethral dilatation was performed. However, the patient reported persistent difficulty in micturition and a poor urinary stream even one month after the procedure. A recurrence of urethral stricture was diagnosed based on clinical symptoms and radiological findings, including uroflowmetry, Retrograde Urethrography (RGU) and Micturating Cysto-Urethrography (MCU), as advised by the consultant. The patient had no history of hypertension, diabetes mellitus, recurrent catheterisation, or other systemic illnesses.

Diagnostic Investigations

- **Ultrasound (USG):** Revealed features suggestive of cystitis and possible bladder outlet obstruction. The PVR urine volume was 230 mL, and bladder wall thickness measured 7 mm.
- **Uroflowmetry:** Demonstrated a significantly reduced Qmax (maximum urinary flow rate) of 5.1 mL/sec, indicating obstructive uropathy.

Keywords: Ayurvedic urology, *Mutrasanga*, Post-void residual

- **Retrograde urethrography (RGU) and MCU:** Revealed a stricture at the junction of the prostatic and membranous parts of the urethra.

Following urethral dilatation, the patient was started on Ayurvedic management using *Vastyamantak Ghrita Uttarbasti*. This therapeutic intervention was administered as *Uttarbasti* (intravesical medicated oil instillation via the urethral route) at two-day intervals for a total of eight weeks.

Management: This conceptual management is based on classical Ayurvedic texts, focusing on the use of *Vastyamantaka Ghrita* [1] for managing urinary complaints. The procedure employed was *Uttarbasti* [2], wherein medicated ghrita ranging from 10 mL to 60 mL was administered via the urethral route. In this case, up to 30 mL of *Vastyamantaka Ghrita* was gently warmed to a tolerable temperature and administered. Sterilisation was ensured through autoclaving in the operation theatre.

Instruments used:

- Disposable syringe, 20 mL capacity.
- Lignocaine jelly and 10% w/v Betadine solution.
- Surgical gloves and sponge-holding forceps.
- Sterile cotton gauze pads and a hole sheet.
- Surgical mask and gown. All instruments were properly sterilised and the procedure was conducted in the operation theatre under strict aseptic measures.

Procedure of *Uttarbasti*: The method is divided into three parts: *Purva Karma*; *Pradhan Karma*; *Paschat Karma*.

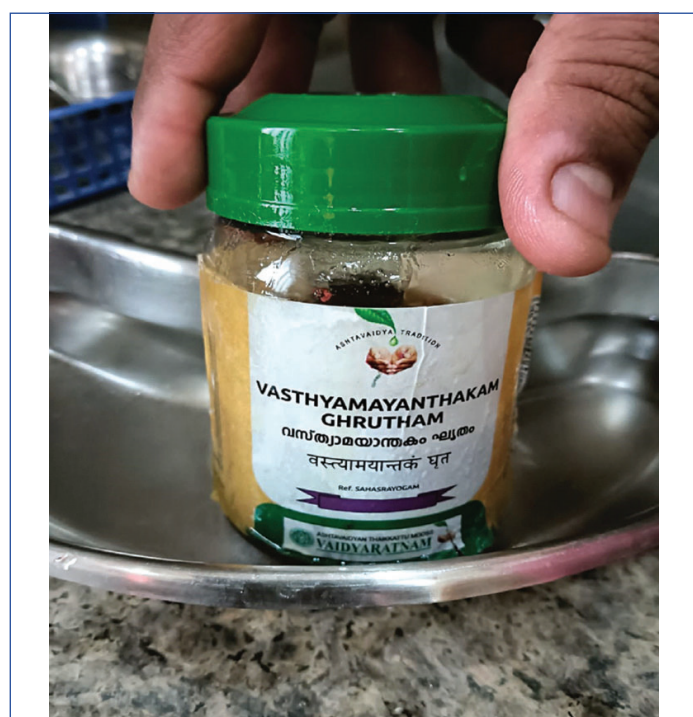
A) *Purva karma*

- Part preparation was done.
- Written informed consent of patient was taken
- Patient was advised to empty bladder prior to the procedure of *Uttarbasti*.
- Painting and draping was done.

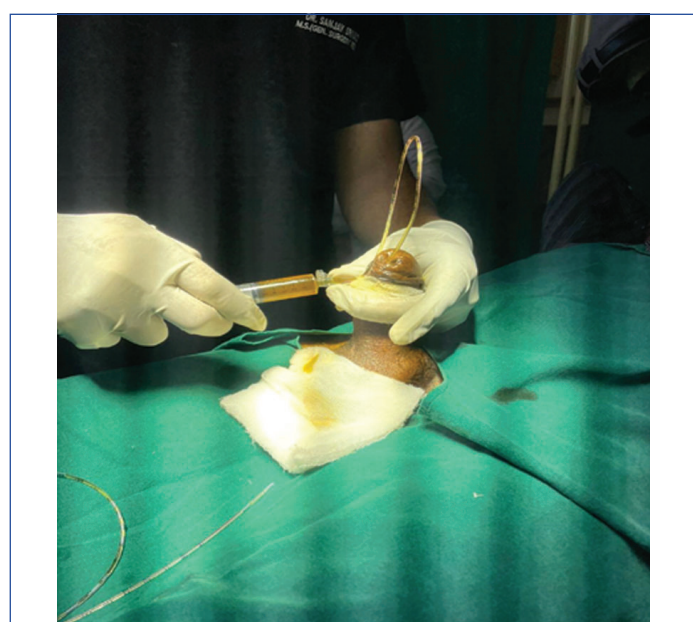
- The procedure was performed in the morning after three to four hours of the previous meal.

B) Pradhan karma

- The patient should be in a supine position on the Operation Theatre (OT) table.
- The ghrita was melted in a metal saucepan over hot water.
- After painting and draping, local anaesthetic jelly was applied.
- A disposable syringe was attached to a sterile Nel catheter of the proper size.
- The syringe was filled with 15 mL of sterilised *Vasthyamantaka Ghrita* using the Nel catheter, which was inserted and advanced.
- The amount of *Vasthyamantaka Ghrita* was gradually increased daily until it reached 30 mL.
- Vasthyamantaka Ghrita* was pushed in after the catheter was inserted into the urethra. The Nel catheter was gradually removed, and for the next 30 minutes, a penile clamp was used [Table/Fig-1,2].



[Table/Fig-1]: Showing the drug used in the *Uttarbasti*.



[Table/Fig-2]: Showing the Pradhan karma *Uttarbasti*.

C) Paschat Karma-

- The patient remained in the same position for 10-20 minutes.
- Blood pressure and pulse rate were monitored after the procedure.
- The patient was counselled to avoid excessive straining and for eight weeks *Uttarbasti* was performed every fourth day with a two-day interval.

The following criteria, listed in the materials and techniques, were used to evaluate the effectiveness of *Uttarbasti* therapy. Prior to treatment, the patient's Qmax was 5.1 mL/s; by the end of the study, it was 14 mL/s. Additionally, the RGU report revealed a stricture in the bulbo-membranous part of the urethra with a wide lumen at the distal part of the prostatic urethra following therapy completion.

Before the study started, the PVR was determined by inserting a feeding tube into the bladder and measuring the remaining urine in a flask; it was 230 mL. After the trial, the PVR was 70 mL. Retention time also increased at each follow-up. Therefore, the study found a notable improvement in reducing PVR and increasing retention time [Table/Fig-3].

Date	Residual volume (mL)	Retention time after <i>Uttar basti</i> (min)
28 th Sept 2024	230	30
06 th Oct 2024	250	45
14 th Oct 2024	240	75
22 nd Oct 2024	210	90
30 th Oct 2024	200	120
07 th Nov 2024	160	120
15 th Nov 2024	70	130

[Table/Fig-3]: Timeline of retention time after *Uttarbasti*.

Prior to the trial, the patient complained of burning micturition 10-15 times per day, along with an internal and urethral burning sensation. After completion of the trial, burning micturition stopped completely, and the frequency of micturition decreased to approximately 5-6 times per day [Table/Fig-4].

Date	Frequency of micturition at day time	Frequency of micturition at night time
28 th Sept 2024	10	4
06 th Oct 2024	8	4
14 th Oct 2024	8	3
22 nd Oct 2024	7	3
30 th Oct 2024	5	2
07 th Nov 2024	5	2
15 th Nov 2024	4	2

[Table/Fig-4]: Timeline of frequency of micturition at day and night.

Uttarbasti was administered progressively, starting with 15 mL using a 6 Fr feeding tube. The dose and catheter size were gradually increased in each session, reaching up to 30 mL with a 14 Fr tube by the final session. This suggests that the lumen of the narrowed urethra dilates after every *Uttarbasti* session [Table/Fig-5].

Date	Dose of ghrita used in <i>uttarbasti</i> (mL)	Size of feeding tube used (fr)
28 th Sept 2024	15	6
06 th Oct 2024	15	8
14 th Oct 2024	20	8
22 nd Oct 2024	25	10
30 th Oct 2024	25	10
07 th Nov 2024	30	12
15 th Nov 2024	30	14

[Table/Fig-5]: Timeline of the dose of ghrita in *Uttarbasti*.

Note: French gauge (Fr) is a unit of measurement for the diameter of the tube

After therapy was finished, the patient required only 1-1.5 minutes to complete micturition with a good urine stream, whereas prior to therapy the stream was weak and typically took 2-3 minutes to complete micturition. Therefore, based on these findings, the *Vastyamantaka Ghrita Uttarbasti* method significantly improved the patient's quality of life and urethral stricture symptoms were markedly relieved.

The results indicate a reduction in micturition frequency, less pain during micturition and improved urine flow. The patient completed all sessions over 8 weeks with no missed doses and tolerated the treatment well. No adverse effects or complications were observed during or after the intervention.

DISCUSSION

Urethral stricture disease has an estimated incidence of 0.9% in vulnerable populations and remains a common issue [3]. It primarily affects males between 18 and 70 years of age. Symptoms include urethral discharge, a progressively weak urinary stream, post-void dribbling, incomplete voiding and increased frequency. Urethral stricture can be described as fibrotic tissue that constricts the urethral lumen, thereby obstructing urine flow. Causes can include urinary tract infection, trauma, or events following surgery [4].

The success rates of the various urethral-stricture treatment approaches vary. The most common procedures, urethrotomy and urethral dilatation, have relatively low long-term success rates (0-9%) [5]. Urethroplasty has a much higher success rate (85-90%), though sexual dysfunction can be a complication; it remains a procedure with a comparatively high success rate [5].

According to Ayurvedic anatomy (*Sharir*), *Mutravaha Srotas* include *Vrukka* (kidney), *Gavini* (ureter), *Mutrashaya* (urinary bladder), and *Mutramarga* (urethra) [6]. *Mutamargasankoch* (urethral stricture) is described under *mutraghat* in Ayurvedic texts: *Acharya Charaka* describes it as *mutrakrichcha* of eight types [7], while *Acharya Sushruta* describes it as *mutraghat* of 12 types [8].

Although *Mutamargasankoch* is not classified as a distinct entity, *Mutrotsanga* and its symptoms are alike. In *Mutrotsanga*, the pathology (*samprapti*) occurs in the urethra, leading to obstructed urine flow, straining, dribbling and prolonged and frequent urination. *Acharya Sushruta* recommends para-surgical and medical treatments, like *Uttarbasti*, for managing *Mutramarga Sankoch*. The condition is primarily due to vitiated *Vata* and *Kapha* doshas, affecting *rasa*, *rakta*, *mamsa* and *sleshma dhara kala*, thereby disrupting the *Apana Vayu*-controlled act of urination. Vitiated *Vata dosha*, with increased *chala*, *ruksha* and *khara gunas*, causes narrowing of the *mutramarga* (urethra), leading to urine-flow obstruction due to *marga avrodha* (blockage) and *vimargagamana* (misdirected flow). The main treatment goal is to normalise *Apana Vayu* through *Vatanuloman* and *Mutrashodhan*. Hence, for the treatment of *mutra-marga sankocha* with *vata-kapha* involvement, this should be pacified with medicines used in the procedure called *Uttarbasti*.

Uttarbasti with *Vastyamantaka Ghrita* leverages its *sukshma* (subtle) and *snigdha* (unctuous) properties to penetrate fine channels and pacify *Vata dosha*. This Intravesical Drug Delivery System (IVDD) enhances blood flow, improves absorption and supports bladder function. The formulation balances *Vata-Kapha*, strengthens bladder muscles and sphincters and adheres well to the urothelium for effective action.

Vastyamantaka Ghrita, containing *Kushmanda*, pacifies *vata* through its action on *Mutraghat haram* [9,10] and *Bastisodhana-sarva-dosha haram* [11]. It comprises ingredients like *Gokshura*, *Shatavari*, *Kushmanda*, *Gambhari* and *Varun*, which help relieve *Mutrakrichcha* through their *Madhura* (sweet) and *snigdha* (unctuous) properties. *Gambhari* helps increase urine flow (*Mutravibandhagna*). *Kushmanda* contains cucurbitine, a key component that helps relieve stricture.

Kushmanda contains chemical components such as astannins, saponins, terpenoids, phenolic compounds and alkaloids in its extracts, which act as antioxidants, antibacterials, anti-inflammatory agents, analgesics, diuretics and antiulcerants, aiding in the management of urethral stricture [12]. Additionally, *Bimbi* contains steroids, alkaloids, flavonoids, glycosides, tannins and phenolic compounds, which exhibit anti-inflammatory, analgesic, antipyretic and antioxidant properties and thus help in treating urethral stricture [13].

Vastyamantaka Ghrita is introduced into the bladder to improve sphincter and bladder function by activating neuro-receptors and facilitating urine passage through the Bladder Permeability Barrier (BPB) [14]. It works through *Rasayana*, *Ojaskara* and *Tridosahara* properties, as well as antioxidant activities. *Bala* boosts neurological function, activates higher centers of micturition and fortifies the sphincters and detrusor muscles.

Uttarbasti is involved in urethral stricture management in two ways: mechanically and pharmacologically [15]. The drug used is readily absorbed by the bladder mucosa, allowing it to act directly on the stricture. It softens tissues, reduces fibrosis, increases urethral elasticity, and improves urine flow, thereby enhancing Qmax.

The mechanical effect of *Uttarbasti* involves repeated insertion of a catheter or feeding tube, which dilates the narrowed urethra, maintains lumen patency, improves urine flow, increases Qmax and reduces voiding time. This prevents urine stasis and lowers the risk of recurrent Urinary Tract Infections (UTI) and stricture recurrence.

Vastyamantaka Ghrita Uttarbasti is a more specialised, potent, and safer form of *Uttarbasti* for urethral stricture due to its deep action, fibrosis resolution and comprehensive *dosha* balance (both *Vata* and *Kapha*), offering superior clinical benefits compared with general *Ghrita*-based *Uttarbastis*.

CONCLUSION(S)

The combination of *Uttarbasti* and *Vastyamantaka Ghrita* effectively reduced urinary incontinence, PVR volume and micturition discomfort, while improving urine flow, bladder capacity and overall quality of life. It provided long-term relief without side-effects, showing better outcomes and lower recurrence than standard treatments. Follow-up confirmed sustained improvement, highlighting the efficacy of Ayurvedic management in urethral stricture with incontinence.

REFERENCES

- [1] Sharma, R, editor. *Sahasrayoga*, *Grithaprakarana* Chapter 2, verse 82-86 Delhi: Chaukhambha Samskruta Pratishthana; 2004. p.52.
- [2] Amlikanthwar RH. Role of Uttarbasti in the management of Mutra Marga Sankoch (urethral stricture). *Indian J Tradit Knowl*. 2004;3:177-81.
- [3] Anger JT, Buckley JC, Santucci RA, Elliott SP, Saigal CS. Trends in stricture management among male medicare beneficiaries: Underuse of urethroplasty. *Urology*. 2011;77:481-85.
- [4] Das S. *Text Book of Surgery*, 6th Edition, Publisher: S Das, 13, Old Mayor's court, Kolkata, p-1168.
- [5] Gallegos MA, Santucci RA. Advances in urethral stricture management. *F1000Research*. 2016;5:2913.
- [6] Shastri K, editor. *Charaka Samhita* of Agnivesha with Vidyotini Hindi commentary. *Viman Sthana*, Chapter 5. Varanasi: Chaukhambha Sanskrit Sansthan; p.593.
- [7] Charaka. *Charaka Samhita*. Hindi commentary by Shastri K. Chikitsa Sthana, Chapter 26, verses 34-41. Varanasi: Chaukhambha Bharati Academy; 2011.
- [8] Shastri AD, editor. *Sushruta Samhita: Ayurveda Tatva Sandipika*. Nidanasthana, Uttara Tantra, Chapter 58, verses 3-4. Varanasi: Chaukhambha Sanskrit Sansthan; p.423, 425.
- [9] Tripathi I, editor. *Raj Nighantu: Dravyaguna Prakasika* (Hindi commentary). Chapter 6, Pippalyadi Varga, shloka 161. Varanasi: Chaukhambha Krishnadas Academy; p. 218.
- [10] Government of India, Ministry of AYUSH. *The Ayurvedic Pharmacopoeia of India*. Part 1, Vol. 4. New Delhi: Ministry of AYUSH; p.61.
- [11] Shastri AD. *Sushruta Samhita: Ayurveda Tatva Sandipika*. Sutrasthana, Chapter 46, Verses 213-214, 182-184. Varanasi: Chaukhambha Sanskrit Sansthan; p. 258, 261.

- [12] Chaitali W, Rao P, Vikhe SR. Phytochemical study and pharmacological activities of *Benincasa hispida*-review. *Res J Pharmacogn Phytochem*. 2022;14(2):119-23.
- [13] Raje VN, Yadav AV, Shelar PA. *Coccinia indica*- A phytopharmacological review. *Research J. Pharmacognosy and Phytochemistry* 2013;5(1):09-14.
- [14] Rahul N, Yadava R, Raj AS, Jyothi PA. Pragmatic Ayurveda approach towards End-stage renal disease. *J Ayurveda Case Rep*. 2025;8(2):113-18.
- [15] Shaikh RA. Role of *Sahacharadi Taila Uttarbasti* in the management of post operative urethral stricture-A case report. *J Ayurveda Hol Med (JAHM)*. 2023;11(12):200-06.

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