

## Efficacy of Uttarbasti in the management of Recurrent Urethral Stricture-A Single Case Study

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### Abstract:

Now a days urethral stricture disease is the common problem occurred in the patients after chronic urinary tract infection, urethral injury or post-surgical interventions performed through per urethra. In Ayurvedic literature urethral stricture may be correlated as *mutrotsanga* mentioned in Sushruta Samhita. There are advance surgeries available as the science advances with technology various surgeries like urethrolithotomy, Trans urethral removal of urethral stricture, dilatation of urethra. The way to overcome this problem is surgery i.e. urethroplasty. But the recurrence rate is high enough to think the alternative. In this case study, a 70 years old Male patient suffering from recurrent urethral stricture was came to Shalya Tantra OPD. Patient also undergone repeated urethral dilatations four times but not relieved. So after clinical examination and investigations the case diagnosed as urethral stricture and treated with Ayurvedic Para-surgical procedure i.e. *uttarbasti* to avoid recurrent urethral stricture. In Ayurvedic literature *uttarbasti* is the procedure in which some medicinal preparations are introduced per urethra. In this particular case study *apamargakshara tail* for the *uttarbasti* procedure was used. The quantity of oil for first three setting was 30ml and 20ml for remaining setting. After procedure study the results found in the case are encouraging enough.

**Keywords:** Ayurveda, *Apamarga Kshar Tail*, *Mutrotsang*, *Mutraghata*, *Uttarbasti*, Urethral Stricture.

Received: 29.08.2020

Revised: 03.09.2020

Accepted: 23.09.2020

Quick Response code



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**Introduction:**

In Ayurvedic literature Sushruta Samhita is the prime text book of ancient surgery. By the study of this book it is evident that urological problems are important part of medical science since earlier. It may be the reason that a clear and striking picture regarding their classification, symptomatology, complications and management are explained in all the Ayurvedic classical texts. *Mutravahashrotas* well described by the Sushruta. Sushruta also mentioned the classification, *niadan* and *chikitsha* of the *mutravaha shrotas vyadhi*.<sup>[1]</sup> As per Ayurvedic anatomy (*Sharir*) *Mutravaha Srotas* includes *Vrukka* (kidney), *Gavini* (ureter), *Mutrashaya* (urinary bladder) and *Mutramarga* (urethra).<sup>[2]</sup> *Mutamarga sankoch* (urethral stricture) is a commonest disorder of urinary system. In Ayurvedic text it is explained under *mutraghat*. Acharya Charaka explain as *mutrakrichcha* of 8 types<sup>[3]</sup> and Acharya Sushruta explain as *mutraghat* of 12 types.<sup>[4]</sup> *Mutra Margsankoch* is not mentioned as separate entity but the symptoms have similarity with *Mutrotsanga*.<sup>[5]</sup> In *mutrotsanga* the pathology (*samprapti*) must be in urinary bladder or in urethra anywhere from bladder to tip of penis.

In the management of treatment of *Mutramarga sankoch* Acharya Sushruta mentioned some medical as well as para-surgical procedure like *uttarbasti*. Symptoms of *Mutramarga Sankocha* can be correlated with stricture urethra. Urethral stricture means Pathologically it becomes narrowed by a fibrotic tissue, which obstructs flow of urine. The etiological factors may be Urinary tract infection, injury or post-surgery.<sup>[6]</sup> In modern Medicine, the modality of treatments are urethral dilatation, urethrotomy and urethroplasty surgical treatment. It may cause bleeding,

false passage and fistula formation.<sup>[7]</sup> The surgical intervention like urethral dilatation also carries high grade risk of recurrences. Though the modern medical science has developed in many directions, it is unable to provide satisfactory & no recurrence treatment to patients without any complications and uneventful recovery.

Uttarbasti is an important procedure for the genito-urinary disorders of both males and females. It is mentioned in the various Ayurvedic classics.<sup>[8]</sup> The therapy involves instillation of a specific siddha oil, *ghrita* or decoction into the urinary bladder or uterus. In this procedure medicated oil or *ghrita* is instilled in female per vagina or in the bladder in males and females per urethra.<sup>[9]</sup> All aseptic precautions are followed by process of Autoclaving *Uttarbasti* medicated oil or *ghrita* is kept in a bowl and that bowl is kept in Autoclave drum for its complete sterilization. medicated oil became complete sterile with this process. This *Uttarbasti* therapy procedure takes about 20-25 minutes. It is carried out three consecutive days or as required or as per advancement of the disease. Previous studies also suggest encourage results of *uttarbasti* with different medicated oil.<sup>[10-11]</sup>

**Case Report:**

A male patient of 70 years old having complains of difficulty in micturition since last 08 years. He was suffering from the symptoms like yellowish colour of urine, strangury of urine, no pain, flow of urine is very poor, frequent micturition and occasionally burning micturition. Patient having history of recurrent urinary tract infection since 2010. At that time he was treated by urologists in Sangli with antibiotic therapy. Patient got relief for some days but again having severe symptoms and retention of urine. Then he was catheterized with Foley's rubber urethral catheter. That

time patient was diagnosed by urologist as Urethral stricture. Urologist suggested him for urethral dilatation as non-invasive uro-surgery. Patient was decided the same and undergone for urethral dilatation procedure. Later on patient discharge from hospital but he suffers from difficult micturition, poor stream and frequent micturition after 6 months of urethral dilatation procedure.

He was diagnosed with recurrent urethral stricture. He was again undergone repeated urethral dilatations in 2012, 2014, 2016 and 2018. In 2019 he was suffering from symptoms of urethral stricture. Even after these urethral dilatation surgery patient has no significant permanent improvement in the flow of urine. Patient was advised to manual self-urethral dilation, flow improvement for some time after dilation but it again reverse.

Patient having no history of repeated catheterization, Diabetes Mellitus, Hypertension and any other systemic illness except osteoarthritis and lumbar spondylosis. The uro-flowmetry is useful for the assessment of patient by Qmax value. The uroflowmetry shows Qmax 7.5 ml/sec and USG shows post void residual volume 80ml before starting treatment. The RGU

(Retro-grade urethorgraphy) showed Anterior urethra-focal short segment stricture of bulbar urethra (Fig-1) The treatment started with *uttarbasti* therapy by *Apamarga kshara tail*. The treatment was continued up to 6 weeks.

### Material and Methods

Uttar basti is the procedure of administration of medicated oil or decoction per urethral or per vaginal route.<sup>[8]</sup> The dose of *uttarbasti* oil or decoction may varied from 10 ml to 60 ml depends on the surgeon's choice and severity of disease. In this study 30 ml oil was used for *uttarbasti*. Some other ingredients like black salt was used in powder form in amount of 2gm. After mixing salt in oil and make it warm enough to touch. Avoid too heat to cause burn. *Uttarbasti* oil was sterilized by the autoclaving process in OT. Other required instruments like disposable syringe 50 ml, surgical gloves, infant feeding tube 6 no, Xylocain jelly 2%, betadine swab and some sterilized gauze pieces. Spongue holding forcep. A hole sheet towel, Penile clamp *Apamarga kshara tail* were sterilized and kept ready before procedure.

**Table-1: Assessment criteria or parameters:**

Parameters	Before Treatment	After Treatment
Q-max	7.5ml/sec	18.5ml/sec
PRV	80ml	40ml
RGU	Anterior urethra-focal short segment stricture of bulbar urethra	No stricture
Weak stream of urine.	Present	Absent
Burning micturition	Present	Absent

AYUSH Diagnostic & Research Center		Dr. Sudhir P. Choudhari MBBS, DMRD, DNB	
3D/4D ULTRASONOGRAPHY / COLOUR DOPPLER / DIGITAL X-RAY			
Name :		Age/Sex :	70 Yrs/M
Ref By :	Dr. Tompe Bharat (M.S., Gen. Surgen)	Date :	16 Dec 2019
<b>RETROGRADE URETHROGRAM (RGU)</b>			
Done by cannulating the external urethral meatus and injecting the diluted water soluble contrast at the time of exposure.			
The anterior urethra – Focal short segment stricture of bulbar urethra.			
Rest of the anterior urethra appears normal.			
The posterior urethra appeared normal.			
Smooth passage of contrast is noted in the bladder.			
No e/o false passage.			
 Dr. Sudhir Choudhari MBBS, DMRD, DNB			

Fig-1 RGU Before treatment (16.12.19)

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3D/4D ULTRASONOGRAPHY / COLOUR DOPPLER / DIGITAL X-RAY			
Name :		Age/Sex :	70 Yrs/M
Ref By :	Dr. Tompe Bharat (M.S., Gen. Surgen)	Date :	10 Feb 2020
<b>RETROGRADE URETHROGRAM (RGU)</b>			
Done by cannulating the external urethral meatus and injecting the diluted water soluble contrast at the time of exposure.			
The anterior urethra is normal.			
The posterior urethra appeared normal.			
Smooth passage of contrast is noted in the bladder.			
No stricture.			
No e/o false passage.			
 Dr. Sudhir Choudhari MBBS, DMRD, DNB			

Fig-2 RGU After treatment (10.02.20)

### Procedure of Uttarbasti:

Patient was advised for evacuation of bladder. Bladder was evacuated just before administer *uttarbasti* by feeding tube for removal of Residual urine. Patient lies in supine position with cloth undone upto knees. With the gloved hand the warm oil mixed with black salt loaded in a 50 ml disposable syringe up to 30ml mark. The needle of syringe was removed. The external urethral meatus was open and cleaned with betadine swab, prepuce retracted and Xylocain jelly 2% applied on meatus and some push inside the urethra. By holding the penile shaft straight in left hand the tip of syringe inserted in external meatus by right hand. Almost now the 30ml oil pushed slowly in single stroke. Then penile clamp was applied for 10 minutes to avoid the leakage of oil, then removed and meatus cleaned and prepuce repositioned to avoid paraphimosis. Patient was advised to retain *uttarbasti* for at least 30 minutes for its better action.<sup>[1]</sup> This process was repeated

three consecutive days and after one week repeat again up to six weeks.

### Observation and Results:

The efficacy of *uttarbasti* therapy was assessed on the basis of the four criteria mentioned in the material and methods. The Q-max of patient before starting the therapy was 7.5 ml/sec and after the completion of complete trial the Q-max recorded was 18.5ml/sec. The PRV (Postvoidal Residual Volume) measured by inserting feeding tube in bladder and evacuated residual urine measured in flask before starting trial, it was 80 ml and after completion of trial was 40 ml. so there was significant improvement in reduction of PRV was noted in the study. Before starting of trial patients was complaining the frequent burning micturition i.e. 10-15 times in a day with burning sensation in urethral orifice and inside too.

After completion of trial the burning micturition stops completely with the regulation of frequency of micturition.

Before starting the trial patient have a very poor stream of urine and patient take usually 6 to 8 minute in completing the act of micturition. After complete therapy patient takes only 1-2 minute in completing the complete act with the good stream of urine flow. The RGU report also showed no e/o any stricture after completion of treatment (Fig-2). So on the basis of results observed in this case we found that *apamarga kshar tailuttar basti* procedure has significant improvement in the quality of life of a patient. The patient got complete relief from urethral stricture symptoms.

### Discussion:

*Uttarbasti* procedure acts both ways i.e. pharmacologically and mechanically on the stricture urethra. First the drug used by procedure get easily absorbed by mucosa in urinary bladder and acts accordingly on urethral stricture. *Apamarga kshara* tail was prepared with the help of *apamarga kshara* having the *tridoshshamak* properties. When we look the pathophysiology of *mutravrodh/ mutrakrichcha*, we found that *vata* and *kapha* dosh are dominant. As we know that *sankoch* is the property of *vata* and most of the *margavrodh* occurs due to *kaphadosha*. *Apamarga* has *Rasa-Katu, Tikta Guna-Laghu, Ruksha, Tikshna, Virya-Ushna, Vipaka-Katu* and *Doshakarma Kaphavataasmaka, Kaphapitta samsodhaka, medohar, deepen pachana*. So by virtue of these pharmacological properties the *Apamarga* oil reduces *vata* and *kaphadosa*. *Sukshmaguna* of oil helps in action of *uttarbasti* on fibrous tissue of stricture.<sup>[10-11]</sup> In modern aspect we can say that drug *apamarg kshar tail* reduces the fibrosis in stricture part of urethra and increase the stretchability of contracted urethra so the urine outflow became easier and good stream was formed that increased the Q-max. Now come to the mechanical effect of

*basti* as due to frequent insertion of catheter in urethra for removal of residual urine, it mechanically dilated the contracted part so that the lumen remains open that reflect as good stream of urine, high Q-max and reduces the time of voiding. Due two above both reason the stasis of urine in bladder not happen and that reduces the chance of recurrent Urinary tract infection. It ultimately results in no recurrence of urethral stricture.

### Conclusion:

The case study concluded as the *uttarbasti* with the *apamarga kshara tail* is the good choice of treatment for the case of *mutrotsanga* (recurrent urethral stricture) cases. It is not cost effective and doesn't require any major *anesthesia*.

### Limitation of study:

This *uttarbasti* treatment is not advisable in the acute condition of urinary system. The procedure should be undertaken by skilled person. To place firm results the trial should be done on large sample and should be with multicentre trial.

### Patient's Consent:

The consent has been taken from the patient for publication of report without disclose the identity of patient as per medical ethics.

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**Conflict of interest:** Author declares that there is no conflict of interest.

**Guarantor:** Corresponding author is guarantor of this article and its contents.

**Source of support:** None

**How to cite this article:**

Tompe BS. Efficacy of Uttarbasti in the management of Recurrent Urethral Stricture- A Single Case Study. Int. J. AYUSH CaRe. 2020; 4(3):142-147.