

A CASE STUDY ON *MUTRAKRICHHRA* W.S.R TO UTI

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ABSTRACT

Dysuria is defined as pain, burning or discomfort on urination accompanied by frequency or urgency. Pain at the start of urination suggests urethral pathology, while pain at the end of urination suggests bladder origin. Pyuria and Hematuria are the most common & sensitive respectively lab indicator for UTI. *Mutrakrichhra* though more frequently seen in case of females but prevalence also increases in men with increasing age. Although in men it is not so common but it can be very serious when it occurs. Previously it is considered that lower urinary tract symptoms in old age associated with bladder outlet obstruction due to increase in prostate size but now considered that age related changes affect the bladder smooth muscle, urothelium, vasculature, innervation might potentially cause increase prevalence with increasing age. Though the use of antibiotics has resolved the problem surely but, relapses, resistance and side effects are also associated with their long-term use. Now the need of *Ayurvedic* medicine arises to give a definite complete treatment. So, this case study is mainly based upon the *Ayurvedic* treatment given to an antibiotic resistant chronic UTI patient and treated successfully.

Keywords: *Mutrakrichhra*, *Vibandha*, Urgency.

INTRODUCTION

In Ayurveda urinary disorders comes under *Mutravasrotasavyadhi* and broadly classified under subheading of *Mutrakricchra* and *Mutraghata*. In both of the form *Mutra Vibandha* is there but in case of *Mutrakricchra* *Krichhrata* is present mainly in the form of burning, tingling, stinging of urethra, pain during, before and after micturition along with symptom of heaviness in pelvic region. Afflictions related to urinary system have become so common and they have increased number of patient visit in OPD. UTI is one of the major causes of morbidity and when further increases due to improper treatment or antibiotic resistance can cause renal damage. *Mutrakrichhra* related to UTI is more frequently seen in case young and post-menopausal females. Thorough history of patient, a stepwise diagnostic approach, accompanied by proper laboratory testing are usually sufficient enough to rule out the cause of *Mutrakrichhra*. Symptoms commonly seen in the form of frequency, urgency, occasional suprapubic tenderness, urine microscopy positive for pyuria, with occasionally haematuria in case of UTI.

Ayurveda is a medical branch giving utmost preference in correcting the physiological aspects of *Mutrakricchra*. The vivid *Ayurvedic* vocabulary is capable of addressing issues like *Mutrakricchra* to a great extent and can really contribute to the whole medical world by providing alternative for antibiotics and chemically made alkalizers. Modern pharmacological agents are having their own limitations as per reported studies. There are number of classical medicinal preparations available in market for this study I have selected cost effective *Kwaths* of *Punarnavasthak*, *Bhumyamalaki* and *Shweta Parpati*, *Sankha bhasma* and *Mulethi Churna*.

CASE STUDY

A 62-year-old male patient came to Rishikul Campus Haridwar having chief complaint of burning in urine from past 15 days, with increased frequency of micturition 10 -15 times per day, night frequency 3-4 times. Feeling of nausea and more often vomiting occurs from past 6 months along with acid regurgitation for this patient is also taking pantoprazole 1 OD on daily basis. Patient is also having history of repeated UTI from past 5 years intermittently and every time a different antibiotic is given intravenously due to associated antibiotic resistance. According to patient his pus cell count in urine increased up to a severe extent several times during UTI episode therefore he has to pursue IV antibiotic every time. After USG investigation bilateral renal calculi were also seen having size of 10×12 mm in left kidney mid pole and another of 3.6 mm in right kidney mid pole, mild hydronephrosis on left side was also seen. Mild fatty liver, and left renal cyst was present. There was no prostatomegaly seen in USG investigation. However, Xray KUB was normal. Now he is fed up from repeated antibiotic use and want an *ayurvedic* treatment for completely resolving his problem. He is K/C/O HTN and taking Telma-H for that 1OD. He is also having history of CABG done 3 years back. Other systemic examinations are normal.

General Information	General Examination	Personal History
Name: Mr-X	B.P- 128/ 78 mm Hg	Appetite: Decreased
Age: 62 years	PR- 68/min, RR- 16-18 times/min.	Bowel: Regular with increased frequency of 3-4 times/ day

Sex male	Pallor- Absent, Icterus -Absent	Micturition: Burning with Scanty urination & increased frequency Day/Night= 10-15 times/3-4 times
OPD No. K 2162/ 11657		
Marital status married	Edema-Absent	Sleep: Normal
Occupation Retired from job	Clubbing-Absent	Weight: 64 kg, Height: 152 cm

DASHVIDHA -AATUR PARIKSHA

Prakriti	<i>Pitta Pradhan, Kaphaj Vata Anubandh</i>
Vikriti	<i>Pitta dosha</i>
Sara	<i>Madhyam</i>
Samhanan	<i>Madhyam</i>
Pramana	<i>Madhyam</i>
Satmaya	<i>Madhur, lavana &Avara satmaya</i>
Satva	<i>Madhyam</i>
Aharashakti	<i>Avara Abhyavarana Shakti and Jaran Shakti</i>
Vyayamashakti	<i>Avara</i>
Vaya	<i>Vridhavastha</i>

NIDANA- PANCHAKA

Nidana	Excess intake of tea, coffee, curd, Namkeen etc.	
Purvaroop	<i>Ruk-Ruk Kar Mutra Ki Pravrutti</i>	
Roop	<i>Daha Yukta, Peeta Varna Mutrapravrutti</i>	
Upashaya		
Sampratighatak	<i>Dosha</i>	<i>Pitta Pradhan Tridosha</i>
	<i>Dushya</i>	<i>Rasa Dhatu, Mutra</i>
	<i>Srotasa</i>	<i>Rasavaha, Mutravaha</i>
	<i>Srotodushti</i>	<i>Sanga</i>
	<i>Udbhav sthana</i>	<i>Amashya, pakwashaya</i>
	<i>Vyakta sthana</i>	<i>Mutramarga</i>
	<i>Rogmarga</i>	<i>Abhyantar</i>
	<i>Vyadhi swabhav</i>	<i>Chirkari</i>

INVESTIGATIONS

	Before Treatment	45 days After Treatment
Hb%	9.60 gm%	10.2
ESR	40 mm/hr	14 mm/hr
TLC	6000/mm ³	6400 /mm ³
DLC		
Neutrophils	41%	49 %
Lymphocytes	57 %	48 %
Eosinophils	01 %	01 %
Monocytes	01 %	1 %
Basophils	00 %	1 %
RBS	100.3 mg/dl	108 mg/dl
Blood urea	28 mg/dl	13.56 mg/dl

Serum creatinine	1.2 mg/dl	0.97 mg/dl
SGOT	57.62 U/l	48.09 U/l
SGPT	37.04 U/L	32.88 U/l
Urine R/M		
Color	Dark yellow	Pale yellow
Appearance	Turbid	Slightly hazy
Specific gravity	1.030	1.010
pH	5.0	7.8
Pus cells	80-100/hpf	25-30/hpf
Epithelial cells	Occasional/ hpf	2-3/hpf
Cast	Nil	None
Crystals	Nil	Negative
RBCs	Ocassional/ hpf	Nil
Albumin	Present ++	Absent
Sugar	Nil	Nil
HIV	Non-reactive	
VDRL	Non-reactive	

SUBJECTIVE CRITERIA FOR ASSESEMENT

BURNING	GRADING	BT	AT
No burning	0		✓
Mild burning	1		
Moderate burning	2	✓	
Severe burning	3		

PAIN	GRADING	BT	AT
No pain	0		✓
Mild pain	1	✓	
Moderate pain	2		
Severe pain	3		

URGENCY	GRADING	BT	AT
No urge	0		

Clinical Feature	Before Treatment	After 7 days	After 30 days	After 45 days
Can hold for >1hr		1		✓
Can hold for 10-30 mins	Moderate	Mild	Occasionally	Absent
FREQUENCY		GRADING	BT	AT
Can hold for less than 10mins	Absent	3	Absent	Absent
Urgency 5-7 times	Can hold for 10-15 min	Can hold for >30 min	Can hold for >30 min	Can hold for >30 min
8-10 times	>13 times	8-10 times	7-8 times	7-8 times
Frequency	Scanty	Complete voiding	Complete voiding	Complete voiding
10-13 times		3		
>13 times				

	Medicine	Dose
Kwatha	<i>Punarnavasthak kwath</i>	5gm
	<i>Bhumyamalaki kwath</i>	5gm
	<i>Shweta parpati</i>	250mg
Churna	<i>Amalaki churna</i>	3gm
	<i>Mulethi churna</i>	1gm
	<i>Sankha bhasma</i>	250mg
	<i>Mukta pishti</i>	125mg

CHANGES IN SUBJECTIVE PARAMETERS FOLLOWING TREATMENT

TREATMENT: Patient was given treatment for the period of 45 days:

RESULT AND DISCUSSION

Patient got relief in the complaint of burning micturition, scanty urination, with increase frequency of urination & acidity, after treatment of 45 days. USG finding were not done since patient has to leave treatment meanwhile because of some personal issues. There was marked improvement seen in serum creatinine and blood urea level post completion of treatment. Urine pH was improved, specific gravity decreased, pyuria was reduced up to a very significant level.

CONCLUSION

It's the high time that we should utilise therapeutic action of large number of ayurvedic medicines available. We should recognise and put evidence-based research proving that use of these drugs will be worthwhile in treating urinary disorders and avoiding further complication in the form of chronic UTI & other major urine related affliction.

PROBABLE MODE OF ACTION OF DRUGS

No.	Drugs	Property
1	<i>Punarnavasthak kwath</i> ⁱ	<ul style="list-style-type: none"> Due to <i>Laghuand Ruksha Guna</i> of this decoction, this decoction possesses <i>Lekhan</i> property (scrapping) that bring lightness and clear obstruction by removing vitiated <i>Kapha</i>. <i>Tikta Rasa</i> does <i>Pittashaman</i>, <i>Kashaya</i> rasa absorbs the <i>Kapha</i>. <i>Ushna Virya</i> does <i>Amapachana</i> & <i>Abhyantar Sweden Karma</i>. As a result, stickled <i>Dosha of Shakha</i> gets liquified and travels to <i>Kostha</i>. Herbs like <i>Haritaki</i>, & <i>Katuka</i> expels them through anus. <i>Punarnava</i> helps by rejuvenating urinary epithelium and by diuretic action expels out urine.
2	<i>Bhumyamalaki kwath</i> ⁱⁱ	<ul style="list-style-type: none"> <i>Bhumyamalaki</i> is a <i>Rasayan</i>ⁱⁱⁱ and has been described as <i>Mutraroga Nashini</i> as well as <i>Pittameha Nashini</i>^{iv} in <i>Rajanighnatu</i>.
3	<i>Shweta parpati</i> ^v	<ul style="list-style-type: none"> <i>Suryakshara</i>, & <i>Sphatika</i> are <i>Kshara</i>, & they have <i>Karmas</i> of

		<p><i>Shodhan and Ropana.</i></p> <ul style="list-style-type: none"> • <i>Sphatika</i> with its <i>Madhura Rasa</i> and <i>Vipaka</i> alleviates <i>Pitta</i>. <i>Suryakshara</i> being <i>Teekshana</i> and <i>Ushna</i> could act on <i>Kapha</i> and <i>Vata</i>. Moreover, due to presence of salts and their alkaline pH reduces chances of bacterial survival. • K^+ which is secreted by distal tubules is more diuretic. When taken additionally diminishes H^+ exchange with Na^+ due to common ion effect & thus H^+ concentration in urine and its acidity. If more K^+ is not supplied to exchange for Na^+, more K^+ may be lost due to K^+ depletion.
4	<i>Amalaki churna</i> ^{vi}	<ul style="list-style-type: none"> • <i>Amalaki</i> possess five <i>Rasa</i> except <i>Lavan Rasa</i>. It possesses <i>Pitta Kapha Pradhana Tridosha Shamaka</i> action. <i>Vata Shamana</i> (due to <i>Amla Rasa</i>), <i>Pitta (Madhura Rasa, Sheeta Guna)</i>, <i>Kapha</i> (due to <i>Kashaya Rasa, Rooksha Guna</i>). • <i>Amalaki</i> antioxidant, anti-inflammatory, Anticancer, Nephroprotective action is well documented in various research works. • Its <i>Mutrakrichhra</i> action has been mentioned in <i>Charak Chikitsa Adhyaya 26/53</i>, <i>Sushruta Uttara Tantra Adhyaya-58/41</i>, <i>Asthaaghridaya Chikitsa Sthana Adhyaya 11/10</i>. • Its <i>Prameha hara</i> action mentioned in <i>Charak Chikitsa Adhyaya 6/26</i>, <i>Sarangdhar Samhita Adhyaya 1/7</i>.
5	<i>Mulethi Churna</i>	<ul style="list-style-type: none"> • <i>Yastimadhu</i> possess properties that helps in reducing polyuria when taken in large dose due to the presence of Glycyrrhetic acid^{vii} which causes sodium retention. • <i>Yastimadhu</i> possess <i>Madhura Rasa, Guru, Snigdha Guna, Madhura Vipaka, Sheeta Virya</i>. It possesses <i>Vata- Pitta Shamak</i> action & well established antioxidant effect. • In <i>Charak Samhita</i> it is categorized under <i>Mutraviranjaneeya Mahakashaya</i>.
6	<i>Sankha Bhasma/ Mukta Pishti</i>	<ul style="list-style-type: none"> • Both these drugs are of <i>Sikta Varga</i> & possess alkalizer action. Both have acid neutralizing properties that helped in treating hyperacidity. • <i>Mukta Pishti</i> also helped in decreasing blood pressure.

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