

Role of *Shatavaryadi Kwatha* in Management of *Pittaja Mutrakricchra* (UTI)

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ABSTRACT

Mutrakricchra (dysuria) is a disorder of *Mutravaha Srotas* (urinary tract), which includes all types of dysuria. Apart from the four *Doshaja* (bio humors as per *Ayurveda*) types, i.e. *Vata*, *Pitta*, *Kapha* and *Sannipata*, *Ayurveda* considers other factors as calculus, trauma, constipation and seminal clot also as causes of *Mutrakricchra*. All the varieties of *Doshaja Mutrakricchra* appear to be resulting from various types of bacterial infections of urinary tract. On the basis of symptoms, *Pittaja Mutrakricchra* can be kept at par with urinary tract infections (UTI) of modern system medicine. In *Ayurvedic* system of medicine, many polyherbal formulations are used for various urinary disorders. In this study, the therapeutic efficacy of one such formulation, *Shatavaryadi Kwatha*, was evaluated on 50 patients of *Pittaja Mutrakricchra*. Out of these, 60% patients had positive urine culture and hence were the true cases of UTI; however 40% patients, despite having symptoms of *Pittaja Mutrakricchra*, had sterile urine culture reports. All these 50 patients were advised 40 ml *Shatavaryadi Kwatha* orally, twice daily, for a period of two months. The clinical and laboratory parameters, both were assessed before and after the trial, and the results were statistically analyzed. Results of the present study were encouraging, as the drug alleviated symptoms and checked the bacterial growth too.

Key words: *Mutrakricchra*, *Pattika*, *Pittaja*, *Shatavaryadi Kwatha*, Urinary tract infection, UTI

INTRODUCTION

Mutrakricchra vis-à-vis Urinary Tract Infections (UTI)

Mutrakricchra is a disorder of *Mutravaha Srotas*. ‘*Mutra*’ refers to the urine and ‘*Kricchrata*’ refers to difficulty, hence disease “*Mutrakricchra*” includes those forms of urinary disorders where *Kricchrata*, i.e. difficulty in the normal flow of urine is the dominant feature. So, all kinds of dysuria can be considered under this group.

All varieties of *Doshaja Mutrakricchra* (*Mutrakricchra* classified on the basis of dominance of features of specific *Ayurvedic* bio humors) appear to be resulting from different types of bacterial infections of the urinary tract. The symptomatology of *Paittika* (or *Pittaja*) [one of the three basic *doshas*] type of *Mutrakricchra* closely resembles that of UTI described in modern texts, like dysuria, urgency and increased frequency of urination. UTI is defined as the presence of significant bacteriuria (>10,000 colonies of single bacterial type per milliliter urine), along with one or more urinary symptoms such as hematuria, dysuria, frequency, urgency, or suprapubic pressure.^[1] UTI

is described as the microbial invasion of any of the tissues of urinary tract, and is the second most common clinical symptom for initiation of empirical antimicrobial treatment in primary and secondary care.^[2] It can be caused by a variety of conditions and the infection may be complicated or uncomplicated, symptomatic or asymptomatic. *Escherichia coli* (*E.coli*) is the predominant uropathogen (80%) isolated in acute community acquired uncomplicated infections, followed by *Staphylococcus saprophyticus* (10% to 15%).^[3]

Classification of *Mutrakricchra*

As said before, the cardinal feature of *Mutrakricchrata* is difficulty in normal flow of urine, or afflicting the flow of urination rather than suppression or retention of urine which is in fact the characteristic feature of the disease *Mutraghata* (suppression or retention of urine). *Mutrakricchra* has been classified into 8 types by *Charaka* i.e. *Vataja* (urinary colic), *Pittaja* (acute UTI), *Kaphaja* (subacute UTI), *Sannipataja* (acute on chronic UTI), *Raktaja* (dysuria associated with hematuria), *Ashmarija* (dysuria due to calculi), *Shakaraja* (dysuria due to gravel of sugar) and *Shukraja* (dysuria due to seminal clot). *Mutrakricchra* has been described and classified in various other *Ayurvedic* texts also [Table 1]. These are thus comparable to dysuria due to various causes, as described in modern texts.

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Table 1: Classification of Mutrakricchra according to different Ayurvedic texts

S. N.	Types	C.S. ^[4]	Su.S. ^[5]	A.H. ^[6]	M.N. ^[7]	Sh.S. ^[8]	B.R. ^[9]	Y.R. ^[10]	K. S. ^[11]
1.	Vataja Mutrakricchra	+	+	+	+	+	+	+	+
2.	Pittaja Mutrakricchra	+	+	+	+	+	+	+	+
3.	Kaphaja Mutrakricchra	+	+	+	+	+	+	+	+
4.	Sannipataja Mutrakricchra	+	+	+	+	+	+	+	+
5.	Dvandvaja	-	-	-	-	-	-	-	+
6.	Ashmarija Mutrakricchra	+	+	-	+	+	+	+	-
7.	Sharkarajana	+	+	-	-	-	-	-	-
8.	Shakradjanaya Mutrakricchra (constipational dysuria)	-	+	-	+	+	+	+	-
9.	Shukraja Mutrakricchra	+	-	-	+	+	+	+	-
10.	Raktaja Mutrakricchra	+	-	-	-	-	-	-	+
11.	Abhighataja Mutrakricchra (traumatic dysuria)	-	+	-	+	+	+	+	-

Abbreviations used: C.S. (Charaka Samhita), Su.S. (Sushruta Samhita), A.H. (Ashtanga Hridaya), M.N. (Madhava Nidana), Sh.S. (Sharangadhara Samhita), B.R. (Bhaishajya Ratnawali), Y.R. (Yogaratanakara), K.S. (Kashyapa Samhita).

The Pittaja Mutrakricchra

It is one of the types in which the vitiated Pitta along with Vata [mainly Apana Vata (a subtype of Vata Dosha)] on reaching the Basti (bladder), afflicts the urinary passage, as a result of which the patients feel difficulty in urination along with other symptoms like Peeta Mutrata (yellowish discoloration of urine), Sarakta Mutrata (hematuria), Sadaha Mutrata (burning sensation during micturition), Saruja Mutrata (painful micturition) and Muhur-Muhurmutrata (frequent urination).^[12]

Symptoms: The symptom of Pittaja Mutrakricchra described in different Ayurvedic texts has been summarized in [Table 2].

Table 2: Symptoms of Pittaja Mutrakricchra in Ayurvedic texts

S.N	Symptoms	C. S. ^[12]	Su. S. ^[13]	A. H. ^[14]	M. N. ^[15]
1.	Yellow colored urine	+	+	+	+
2.	Blood with urine	+	+	+	+
3.	Burning micturition	+	-	+	+
4.	Painful micturition	+	-	+	+
5.	Difficulty in micturition	+	-	-	+
6.	Frequent urination	+	-	-	+
7.	Hotness of urine	-	+	-	-
8.	Burning sensation in testicle, lower groin and penile or vaginal region	-	+	-	-

Management of Mutrakricchra in Ayurveda

In Ayurvedic system of medicine, many polyherbal formulations are used for various urinary disorders. One such preparation, Shatavaryadi Kwatha, has been specifically indicated for Paittika Mutrakricchra in Charaka Samhita.^[16] It consists of 8 herbs viz. Shatavari (roots of Asparagus racemosus Willd), Kusha (root stock of Desmostachya bippanata Staph.), Kasha (root stock of Saccharaum

spontaneum Linn.), Gokshura (roots of Tribulus terrestris Linn.), Ikshu (root stock of Saccharum officinarum Linn.), Vidarikanda (tuber of Pueraria tuberosa DC.), Shali (root of Oryza sativa Linn.) and Kaseru (rhizome of Scirpus kysoor Roxb.). In present context, the main therapeutic activity of individual ingredients of the said formulation, as described in Ayurvedic Pharmacopoeia of India are: Shatavari pacifies Pitta and is also beneficial in Mutrarakta, Raktapitta (bleeding disorders);^[17] Kusha has Mutrala (diuretic) property and is indicated in Mutrakricchra, Bastiroga (urinary disorders), Raktapitta;^[18] Gokshura exhibits Mutrala (diuretic) property and so is prescribed in Mutrakricchra, and Ashmari (renal stone);^[19] Vidarikanda pacies Pitta- Vata and has Mutrala property and so advised in Mutrakrcchra, Raktapitta and Daha (burning sensation);^[20] Shali having Mutrala (diuretic) property, is indicated in Mutrakricchra;^[21] Kasha is also indicated in Mutrakricchra and Bastishula (pain in lower pubic region);^[22] Ikshu pacifies the Pitta and Vata, exhibits Mutrala property and is also useful in Mutrakricchra and Raktapitta;^[23] and Kaseru pacifies Pitta and alleviates Daha.^[24] The present study has been conducted to evaluate the therapeutic efficacy of this particular formulation in Paittika Mutrakricchra.

Besides above mentioned Ayurvedic indications for the drugs, several studies on different modern parameters and techniques can also be traced to validate the antimicrobial property of the Shatavari,^[25] Vidarikanda,^[26] and Gokshura.^[27]

Aims and objectives of this study

To study the efficacy of Shatavaryadi Kwatha in patients of Paittika Mutrakricchra or UTI.

MATERIALS AND METHODS

Subjects

To evaluate the therapeutic efficacy of the Shatavaryadi Kwatha, 50 patients with symptoms of Pittaja Mutrakricchra were selected from Kayachikitsa OPD of Ayurvedic & Unani Tibbia College, New Delhi. The patients presenting with at least three of the clinical features of Paittika Mutrakricchra described in Ayurvedic classics, were the subject of study. To diagnose the patient on modern parameters, urine culture of all such patients was done, and on its basis, two distinct groups of patients could be clearly identified- those with infection (i.e. the true case of UTI) and those in whom no infecting organism was detected on urine culture. Informed consent of the participants was obtained and the study was approved by the local Institutional Ethics Committee.

Inclusion criteria

The patients, complaining of at least three symptoms of Paittika Mutrakricchra i.e. Peeta Mutrata, Sarakta Mutrata, Saruja Mutrata, Sadaha Mutrata, Kricchra Mutrata, Muhur-muhur Mutrata as described in Ayurvedic classics.

Exclusion criteria

Patients associated with benign prostate hypertrophy, vesico-ureteric reflux, nephrolithiasis, tumor, indwelling catheter, functional

or neurogenic disturbances of micturition and atonic bladder, renal tuberculosis, sexually transmitted diseases, complicating medical situations as diabetes mellitus, decreased renal function, immunosuppressive illness, concurrent pregnancy and children below 10 years were excluded from the study.

Investigations

Routine hematological; routine and microscopic urine examination, and urine culture and sensitivity.

Grouping and design

In this clinical study, the patients were divided in two groups as:

Group I (urine culture positive):

Urine culture positive *Paittika Mutrakricchra* patients. They were 30 in number.

Group II (urine culture negative):

Urine culture negative *Paittika Mutrakricchra* patients. They were 20 in number.

Drug & dosage

40 ml of *Shatavaryadi Kwatha* twice daily [packets of 20 g coarse powder of the *Shatavaryadi Kwatha* given to the patients and instructed to boil it with approximately 320 ml (16 times) of water until reduced to one-eight i.e. 40 ml, then to be filtered and taken fresh]. [28]

Duration of study

The total duration of the treatment was two months, with fortnightly follow up in both groups

Assessment criteria

The symptoms of *Paittika Mutrakricchra* were assessed by assigning the score (0 to 3) to various clinical features and laboratory parameters [Table 3].

Table 3: Scoring method adopted to assess the improvement (in clinical and laboratory parameters)

S. N.	Clinical/ Laboratory Parameters	Scores			
		0	1	2	3
1.	Yellow coloration of Urine	Straw color	Lemon yellow	Canary yellow	Mustard yellow
2.	Hematuria	Absent	Orange color urine	Reddish Urine	Frank hematuria
3.	Painful micturition	No pain	Occasional (1 in 4 times)	Often (50% times)	Almost always
4.	Burning micturition	No burning	Occasional (1 in 4 times)	Often (50% times)	Almost always
5.	Difficulty in micturition	No difficulty	Occasional (1 in 4 times)	Often (50% times)	Almost always
6.	Frequency of micturition	4-5 times/ day	6-10 times/ day	11-15 times/ day	>15 times/ day
7.	Nocturia	None	Once	2-3 times	4 times /more
8.	Pus in the urine	0-2 / hpf	3-10 / hpf	10-20 / hpf	>20 / hpf
9.	RBCs in the urine	0-2 / hpf	3-10 / hpf	10-20 / hpf	>20 / hpf

Assessment of overall effect of therapy

The overall effect of the therapy was assessed under following categories:

- 1. Cured -100% relief in clinical as well as laboratory parameters.
- 2. Markedly improved - Up to 75% relief in clinical as well as laboratory parameters.
- 3. Mildly improved - Up to 50% relief in clinical as well as laboratory parameters.
- 4. Unchanged – No or less than 25% relief in clinical as well as laboratory parameters.

OBSERVATIONS AND RESULTS

Demographic profile

The demographic observations on 50 patients selected for the study of *Paittika Mutrakricchra* were as follows:

Age incidence

Maximum number of patients (68%) belonged to 21- 40 year age group, which is the sexually active age group. A more male population was seen in our series [Table 4].

Table 4: Age incidence of 50 patients of Paittika Mutrakricchra

S.N.	Age group (in years)	No. of Patients			Percentage
		Male	Female	Total	
1.	11-20	5	4	9	18
2.	21-30	13	8	21	42
3.	31-40	9	4	13	26
4.	41-50	1	2	3	6
5.	51-60	2	0	2	4
6.	61-70	1	1	2	4

Sex incidence

Out of 50 patients, 31 patients (62%) were male while 19 patients (38%) were females [Table 5].

Table 5: Sex incidence in 50 patients of Paittika Mutrakricchra

S. N.	Sex	No. of Patients	Percentage
1.	Male	31	62
2.	Female	19	38

Marital status

Majority of patients (76%) were married, which could be because of UTI being more common in sexually active people [Table 6].

Table 6: Marital status of 50 patients of Paittika Mutrakricchra

S. N.	Marital Status	No. of Patients	Percentage
1.	Married	38	76
2.	Unmarried	11	22
3.	Widow	1	2

Habitat

Out of 50 patients, 44 patients (88%) were from urban area and 6 patients (12%) were from rural area [Table 7].

Table 7: Habitat of 50 patients of Paittika Mutrakricchra

S. N.	Habitat	No. of Patients	Percentage
1.	Urban	44	88
2.	Rural	6	12

Prakriti (constitutional types as per Ayurveda)

In this study, 44% patients were of Vata Pittaja Prakriti, 34% of Vata Kaphaja and 22% of Pitta Kaphaja Prakriti [Table 8].

Table 7: Prakriti incidence of 50 patients of Paittika Mutrakricchra

S. N.	Prakriti	No. of Patients	Percentage
1.	Vata Pittaja	22	44
2.	Vata Kaphaja	17	34
3.	Pitta Kaphaja	11	22

Clinical presentation

Clinical features

In 50 patients of Paittika Mutrakricchra, burning micturition was the chief complaint found in all patients (100%), followed by frequent micturition in 94% patients. 80% patients complained of painful micturition and dysuria, 68% patients observed yellowish discoloration of urine, 46% were suffering from nocturia, while only 12% noticed blood in urine (hematuria) [Table 9].

Table 9: Incidence of clinical features in 50 patients of Paittika Mutrakricchra

S. N.	Clinical Features	No. of Patients		Total	Percentage
		Group I (N =30)	Group II (N =20)		
1.	Yellow coloration of Urine	21	13	34	68
2.	Hematuria	4	2	6	12
3.	Painful micturition	24	16	40	80
4.	Burning micturition	30	20	50	100
5.	Difficulty in micturition	26	14	40	80
6.	Frequent micturition	27	20	47	94
7.	Nocturia	17	6	23	46

Duration of illness

In patients of Paittika Mutrakricchra, the maximum duration of suffering (30%) from various symptoms was observed to be two months to one year [Table 10].

Table No. 10: Duration of illness in 50 patients of Paittika Mutrakricchra

S. N.	Duration of Illness	No. of Patients		Total	Percentage
		Group I (N=30)	Group II (N=20)		
1.	Upto 15 days	6	1	7	14
2.	15-30 days	4	2	6	12
3.	1 - 2 month	6	2	8	16
4.	2 month - 1 year	10	5	15	30
5.	1 - 5 years	4	10	14	28

Laboratory investigations

Urine analysis findings

Urine analysis of the 50 patients of Paittika Mutrakricchra showed that 96% patients had acidic urine reaction, and albumin was present in 24% patients. Microscopic examination revealed pus cells in 72% patients, Red Blood Cells (R.B.C.) in 28%, epithelial cells in 42% and crystals in 14% patients [Table 11].

Table 11: Urine analysis findings in 50 patients of Paittika Mutrakricchra

S. N.	Urine analysis findings	No. of Patients		Total	Percent
		Group I (N=30)	Group II (N=20)		
1.	Urine reaction				
	Acidic	29	19	48	96
	Neutral	1	1	2	4
2.	Albumin	10	2	12	24
3.	Pus cells	24	12	36	72
4.	R.B.C.	11	3	14	28
5.	Epithelial cells	14	7	21	42
6.	Crystals	5	2	7	14

Pus cells in the urine

In this study, 14 patients had pus cells of grade 0 severity. In the remaining 36 (72%) patients, maximum number of patients, i.e. 32% had 11–20 pus cells per hpf in their urine, while 22% had 3–10 pus cells and 18% had more than 20 pus cells per hpf in their urine samples [Table 12].

Table 12: Distribution of 50 patients of Paittika Mutrakricchra according to number of pus cells in their urine

S. N.	Pus cells/hpf	No. of Patients		Total	Percent
		Group I (N=30)	Group II (N=20)		
1.	Grade 0 (0-2)	6	8	14	28
2.	Grade I (3-10)	4	7	11	22
3.	Grade II (11-20)	11	5	16	32
4.	Grade III (>20)	9	0	9	18

R.B.C.s in the urine

In this study, 36 patients had nil RBCs in their urine or of grade 0 severity. Out of the remaining 14 patients, maximum number (22%) had 3–10 RBCs in their urine, 4% had 11– 20 RBCs and only 2% had more than 20 RBCs per hpf in their urine samples [Table 13].

Table 13: Distribution of 50 patients of Paittika Mutrakricchra according to the number of RBCs in urine

S. N.	R.B.C./hpf	No. of Patients		Total	Percent
		Group I (N=30)	Group II (N=20)		
1.	Grade 0 (0-2)	19	17	36	72
2.	Grade I (3-10)	9	2	11	22
3.	Grade II (11-20)	1	1	2	4
4.	Grade III (>20)	1	0	1	2

Microbiological finding (Urine culture)

Out of 30 patients (Group I) of positive urine culture, *E.coli* was present in 80% individuals, whereas *Staphylococcus aureus* was found in 16.67%, and mixed infection with *E.coli* and *Streptococci* was seen in 3.33% patients [Table 14].

Table 14: Presence of various microorganisms in 30 patients (group I) of urine culture positive Paittika Mutrakricchra

S. N.	Micro-organism	No. of Patients	Percent
1.	<i>Escherichia coli</i>	24	80.00
2.	<i>Staphylococcus aureus</i>	5	16.67
3.	<i>Escherichia coli</i> + <i>Streptococci</i>	1	3.33

Hematological Findings

Out of 50 patients, 3 patients had leucocytosis and all of them belonged to group I. ESR was found elevated in 28 patients, out of which 21 belonged to group I and 7 to group II [Table 15].

Table 15: Hematological findings in 50 patients of Paittika Mutrakricchra

S. N.	Hematological findings	No. of Patients		Total	Percent
		Group I (N=30)	GR II (N=30)		
1.	Leucocytosis	3	0	3	6
2.	Raised ESR	21	7	28	56

RESULTS AND DISCUSSION

The disease mentioned as *Mutrakricchra* is mainly classified into eight types in various *Ayurvedic* treatise and is said to be caused by *vitiated Dosha* or by different underlying causes. On the basis of presenting complaints, e.g. burning micturition, dysuria and hematuria, *Pittaja Mutrakricchra* can be compared with UTI of modern medicine. The data of present study revealed that:

- The *Pittaja Mutrakricchra* is mainly prevalent among the male population of age group of 21-40 years, probably because they are more sexually active.
- The disease affects mainly *Vata-Pitta Prakriti* followed by the *Vata-Kapha Prakriti* population.
- Most of the cases in this study presented with feeling of burning urination and increased frequency, followed by pain and difficulty during urination; and the patients suffered from these complains from over 2 months or even more.

These patients were given *Shatavaryadi Kwatha* in a dose of 40 ml twice a day for two months, with fortnightly follow-up in both groups and the effect of the prescribed drug is as followed.

Effect on Clinical Features

The trial drug exhibited good overall effect on the clinical features of *Paittika Mutrakricchra* [Table 16]. The relief occurring in symptoms may be attributed to the *Vata* and *Pitta* pacifying property of the *Shatavaryadi Kwatha*.

Table 16: Showing the effect of trial drug on clinical features of Paittika Mutrakricchra in Group I & II

Clinical features	Group I (N=30)					Group II (N=20)				
	Mean score		Relief (%)	SD	t	Mean score		Relief (%)	SD	t
	BT	AT				BT	AT			
Yellow coloration of urine	1.17	0.00	100.00	0.95	6.73	1.05	0.00	100.00	0.89	5.29
Haematuria	0.20	0.00	100.00	0.55	1.99	0.15	0.00	100.00	0.49	1.37
Painful micturition	2.00	0.40	80.00	1.04	8.45	1.55	0.10	93.55	1.00	6.49
Burning micturition	2.47	0.40	83.78	0.74	15.30	2.50	0.10	96.00	0.68	15.77
Dysuria	2.13	0.27	87.50	0.97	10.51	1.40	0.15	89.29	1.07	5.22
Frequent urination	1.70	0.57	66.67	0.94	6.62	1.65	0.30	81.82	0.81	7.43
Nocturia	1.17	0.43	62.86	0.87	4.63	0.50	0.20	60.00	0.57	2.35

Note: ‘BT’ and ‘AT’ denotes before treatment and after treatment respectively

Effect on pus cells & R.B.C. in urine

The trial drug also exhibit antibacterial, anti-inflammatory and styptic action owing to the *Pitta* and *Vata* pacifying activity; and by the virtue of diuretic property of the drug there was reduction of pus cells and RBCs from the urine [Table 17].

Table 17: Effect of trial drug on pus cells & R.B.C.s in urine of patients

Parameters	Group I (N=30)					Group II (N=20)				
	Mean score		Relief (%)	SD	t	Mean score		Relief (%)	SD	t
	BT	AT				BT	AT			
Pus Cell	1.77	0.30	83.02	1.07	7.48	0.85	0.00	100	0.81	4.68
RBCs	0.47	0.00	100	0.73	3.50	0.20	0.00	100	0.52	1.71

Effect on urine culture

The urine culture turned negative in 40% patients of Group I, thus showing the antibacterial effect of trial drug [Table 18].

Table 18: Effect of trial drug on urine culture reports in Group (N=30) patients

S. N.	Micro-organisms	BT		AT	
		No. of patients	Percent	No. of patients	Percent
1.	<i>Escherichia coli</i>	24	80	13	43.33
2.	<i>Staphylococcus aureus</i>	5	16.66	4	13.33
3.	<i>Escherichia coli</i> + <i>Streptococci</i>	1	3.33	1	3.33

Overall assessment

The difference seen in the overall result of therapy in both groups was partly due to the fact that assessment was done on two parameters (bacteriological & clinical) in group I, whereas the assessment in group II was done only on one parameter i.e. clinical parameters [Table 19].

Table 19: Showing overall response of Shatavaryadi Kwatha on patients of Paittika Mutrakricchra

S. N.	Trial cases of Paittika Mutrakricchra	Cured	Markedly improved	Mildly improved	Unchanged	Total
1.	No. of cases with positive urine culture	12 (24%)	9 (18%)	5 (10%)	4 (8%)	30 (60%)
2.	No. of cases with sterile urine culture	14 (28%)	4 (8%)	2 (4%)	0 (0)	20 (40%)
3.	Total no. of cases	26 (52%)	13 (26%)	7 (14%)	4 (8%)	50 (100%)

CONCLUSION

The present study established that *Paittika Mutrakricchra*, as described in *Ayurvedic* texts, presents with clinical features similar to UTI described in modern texts; as out of the 50 clinical cases of *Paittika Mutrakricchra* selected for present study, 30 patients (60%) had positive urine culture (or the cases of UTI as per modern parameter). The post-treatment urine culture reports depicted that effective cure can be achieved by trial drug, as 40% cases of the urine culture positive patients turned negative after treatment. *Shatavaryadi Kwatha* was thus found to be effective in treating the symptoms of *Paittika Mutrakricchra*. The relief occurring in these symptoms may be mainly attributed to the *Vata* and *Pitta* pacifying and diuretic property of the *Shatavaryadi Kwatha*. On the basis of clinico-pathological studies, it can be concluded that *Shatavaryadi Kwatha* is effective in management of *Paittika Mutrakricchra*.

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