

A COMPARATIVE STUDY OF PANCH-WALKALA SIDHHA GHRITA PANA & PANCH-WALKALA SIDHHA GHRITA UTTARBASTI IN THE MANAGEMENT OF PITTAJA MUTRAKRUCHHRA W.S.R. TO CYSTITIS*

Chaudhari Kushal Chhotu¹, Amilkanthwar R. H²

¹M. S. Scholar, ²Associate Professor, Department of Shalya Tantra, Govt. Ayurved College, Vazirabad, Nanded, Maharashtra, India

ABSTRACT

Mutrakruchhra is one of the most common & distressing disease among the group of urinary disorders. *Acharya Sushruta & Acharya Charaka* have described widely & comprehensively about *Mutrakruchhra* with its classification & treatment. They have described 8 types of *Mutrakruchhra* & one of them is *Pittaja Mutrakruchhra*. The *Lakshanas* of *Pittaja Mutrakruchhra* can be correlated with the symptoms of the disease Cystitis. In modern science, cystitis is treated with antibiotics, analgesics & urine alkalisers. No doubt that this treatment is proved, but the effect is temporary. While in *Ayurveda*, *Pittaja Mutrakruchhra* is treated with the herbal medicines like *Trin-panchmula*, *Kakolyadi*, *Nyagrodhadi* etc which can be used orally or by *uttarbasti*. They have no any harmful effect on the body. In present study *Panch-walkala dravyas*, which are the part of *Nyagrodhadi Gana*, are used to treat *Pittaja Mutrakruchhra*. The study was carried out on 60 patients, 30 in each group namely Group 1 (Patients treated by *Pancha-walkala Sidhha Ghrita Pana*) & Group 2 (Patients treated by *Pancha-walkala Sidhha Ghrita Uttarbasti*) In both groups, marked improvement was noted. But the study revealed that the effect is more when *Pancha-walkala Ghrita* is administered by *Uttarbasti*.

Keywords: *Pittaja Mutrakruchhra*, Cystitis, *Pancha-walkala Sidhha Ghrita*, *Uttarbasti*.

INTRODUCTION

Ayurveda has dealt with many diseases of urinary tract under the headings of *Mutrakruchhra*, *Mutraghata*, *Mutrashmari* etc. The present study is concerned with the subject “*Mutrakruchhra*”, a disease affecting “*Mutravaha Srotasa*”. *Acharyas* have described about *Mutrakruchhra* with its classification & treatment. They have described 8 types of *Mutrakruchhra* & one of them is *Pittaja Mutrakruchhra*. The *Lakshanas* of *Pittaja Mutrakruchhra* are nearer to the symptoms of cystitis & therefore both can be correlated with each other. According to *Acharya Sushruta*, *Pittaja Mutrakruchhra* is treated with the herbal

medicines like *Trin-panchmula*, *Kakolyadi*, *Nyagrodhadi Ganas* etc which can be used orally or by *Uttarbasti*¹. They have no any harmful effect on the body. The disease “Cystitis” means the inflammation of urinary bladder. It falls under the group of “Lower Urinary Tract Infection”^{2,3}. In modern science, cystitis is treated with antibiotics, analgesics & urine alkalisers. The effect of this therapy is temporary & patients come with recurrence. Some drugs are nephrotoxic too. In present study *Panch-walkala dravyas*, which are the part of *Nyagrodhadi Gana*, are used to treat *Pittaja Mutrakruchhra*. *Panch-walkala*

contain 5 dravyas viz., Nyagrodha, Udumbara, Ashwattha, Plaksha, Vetasa⁴.

MATERIALS & METHODS

In this study, patients showing classical symptoms of Pittaja Mutrakruhira w.s.r. to cystitis were selected from the OPD and IPD of Shalya Tantra Department, Govt. Ayurved College & Hospital, Nanded.

Material

- Pancha-walkala Bharada Churna
- Goghrita
- Drinking Water

Pancha-walkala siddha ghrita preparation: According to the *Sneha Paka Kalpana*, firstly *Ghrita Murchhana* is carried out. Then *Pancha-walkala Bharada Churna*, *Goghrita* & drinking water are taken in 1:4:16 ratios. The ingredients are mixed. *Mandagni* is given to mixture. The mixture is boiled until the appearance of *Sneha Siddhi Lakshanas*. When *Drava Dravya* (drinking water) gets evaporated completely, the heat is stopped. On coming to room temperature, the mixture is filtered.

Methodology: Patients were selected according to following criteria.

Diagnostic Criteria

- Symptoms of cystitis.
- Urine analysis.
- Urine culture.
- USG report.

Inclusion Criteria

- Diagnosed patients of cystitis.
- Patients of either sex.
- Age group between 16 to 60 years.

Exclusion Criteria

- Patients having similar symptoms in the diseases other than cystitis such as severe renal function impairment, carcinoma within urinary tract, gross hy-

dronephrosis, pyonephrosis, severe obstructive uropathy, any calculus etc.

- Female patients with pregnancy & lactation.
- Female patients suffering from vaginitis & any other gynaecological or obstetrical diseases.
- Patients suffering from major illness like uncontrolled HTN, uncontrolled DM, IHD, CCF, TB, Asthma etc.
- Seriously ill patients of any disease.

Discontinuation Criteria

- Incidence of any acute or life threatening disease.
- Incidence of any such disease or situation which prevents the subject from attending more than 3 examinations.

Clinical Examination

- A case record form was specially prepared which include all prominent signs and symptoms.
- Relevant history was recorded.
- Assessment of graded signs and symptoms were recorded on day 0th, 6th, 12th & 18th day.
- The signs & symptoms were graded on four point scale 0, 1, 2 & 3.
- Enquiry of any other signs and symptoms or any adverse reaction which developed during the trial was noted and entered in the case record form.
- Written informed consent of every patient was taken before treatment.

Investigations

1. Urine : albumin, sugar & microscopic
2. Hb%, TLC, DLC, BSL(R)
3. Sr. creatinine & blood urea
4. USG: abdomen & pelvis
5. Urine culture

Diagnosed patients of cystitis were selected. Patients were equally & randomly divided for both groups.

	Group 1	Group 2
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No. of patients	30	30
Drug	<i>Panch-walkala sidhha ghrita</i>	<i>Panch-walkala sidhha ghrita</i>
Dose	20 ml BD	40 ml OD
Route of administration	Oral	Urethral (<i>Uttarbasti</i>)
Duration	5 days	3 days

Technique of Uttarbasti administration:

The patient was made to lie down in supine position in a relaxed manner with his undergarments taken off. Then the pubic region and penis were properly cleaned with Betadine and covered with sterile green cloth and were clipped with towel clips. Autoclaved *Ghrita* was taken in the syringe and the catheter was attached at its tip. Care was taken that all the air in the syringe and catheter was expelled out before inserting it into the urethra. The penis was then held perpendicular to the body and care was taken not to compress the urethra. The female patients were given lithotomy position. The catheter was placed in the external urethral meatus by holding it from its tip. A few drops of *Ghrita* were injected in order to lubricate

the meatus, to aid smooth passage of the catheter. Gentle advancement of the catheter causes least amount of discomfort and with experience, the natural resistance offered as the catheter traverses through the external urethral sphincter can be felt. As the bulbo-membranous urethra was approached, the patient was asked to take slow breaths. This helps to relax the patient and allow easier passage of the catheter. The catheter should never be forcefully inserted if any obstruction is felt. Once the bladder was approached, urine comes out through the catheter & then the *Ghrita* was slowly injected. When the fixed dose was instilled, the catheter was slowly and carefully withdrawn to prevent any discomfort.

Criteria for Assessment: Patients were assessed on the basis of

Criteria	Cured (0 Grade)	Mild (1 Grade)	Moderate (2 Grades)	Severe (3 Grades)
1. Haematuria	No change in urine colour & no microscopic haematuria.	No change in urine colour, only microscopic haematuria.	Change in urine colour with plenty of RBCs in ME.	Whole urine stained with blood with blood drops at the end of micturition.

2. Pain during / after micturition	No any pain.	Referred pain at the tip of penis in males & at labia majora in females.	Pain at suprapubic region/ tip of penis/ labia majora without tenderness at suprapubic region.	Pain at suprapubic region/ tip of penis/ labia majora with tenderness at suprapubic region.
3. Burning during / after micturition	No burning during micturition.	Burning during micturition.	Burning after micturition upto 1 hour.	Burning after micturition beyond 1 hour.
4. Frequency of micturition at night	No micturition at night	1-2 times in night.	3-5 times in night.	>5 times in night.

Criteria of Total Assessment: Total no. of grades before treatment noted. Total no. of grades after treatment noted. The difference between total no. of grades before treatment & total no. of grades after treatment calculated. Then % relief was calculated considering the total no. of grades before treatment as 100%. Results after treatment were considered as follows

1. Cured: If the difference is 100%, then it is cured.
2. Moderate Improvement: If the difference is between 50 to 100%, then it is moderate improvement.

3. Mild Improvement: If the difference is between 25 to 50%, then it is mild improvement.

4. No Improvement: If the difference is less than 25% or the total no. of grades after treatment is more than the total no. of grades before treatment, then there is no improvement.

OBSERVATION & RESULTS

Observational Evaluation of Results

1. Assessment of Effect of Treatment on Haematuria No. of Patients having Haematuria

Grade	Group 1 (Snehapana)				Group 2 (Uttarbasti)			
	D0	D6	D12	D18	D0	D6	D12	D18
0	14	17	21	23	15	19	21	25
1	9	7	6	6	9	7	8	3
2	5	3	2	1	4	3	1	2
3	2	3	1	0	2	1	0	0

Effect of Treatment (χ^2 Test)

Day	Group 1 (Snehapana)			Group 2 (Uttarbasti)		
	χ^2	P	Results	χ^2	P	Results
D0-D6	1.240	> 0.05	Not significant	1.197	> 0.05	Not significant
D0-D12	3.619	> 0.05	Not significant	4.859	> 0.05	Not significant
D0-D18	7.456	> 0.05	Not significant	8.167	< 0.05	Significant

From the above table, it is seen that the effect of treatment is not significant for Haematuria in Group 1. But it is signifi-

cant in Group 2 only on last day of treatment.

3. Assessment of Effect of Treatment on Pain No. of Patients having Pain

Grade	Group 1 (Snehapana)				Group 2 (Uttarbasti)			
	D0	D6	D12	D18	D0	D6	D12	D18
0	4	9	12	14	2	9	12	14
1	17	18	14	13	15	11	12	11
2	4	1	2	2	9	7	4	4
3	5	2	2	1	4	3	2	1

Effect of Treatment (χ^2 Test)

Day	Group 1 (Snehapana)			Group 2 (Uttarbasti)		
	χ^2	P	Results	χ^2	P	Results
D0-D6	5.037	> 0.05	Not significant	5.463	> 0.05	Not significant
D0-D12	6.243	> 0.05	Not significant	10.07	< 0.05	Significant
D0-D18	9.422	< 0.05	Significant	13.34	< 0.05	Significant

From the above table, it is seen that the effect of treatment is significant for Pain in Group 1 only on last day of treatment. In Group 2, it is significant on D12 & D18.

4. Assessment of Effect of Treatment on Burning Micturition No. of Patients having Burning Micturition

Grade	Group 1 (Snehapana)				Group 2 (Uttarbasti)			
	D0	D6	D12	D18	D0	D6	D12	D18
0	0	5	7	11	0	7	8	12
1	17	15	17	13	11	12	12	8
2	8	8	4	5	15	9	8	9
3	5	2	2	1	4	2	2	1

Effect of Treatment (χ^2 Test)

Day	Group 1 (Snehapana)			Group 2 (Uttarbasti)		
	χ^2	P	Results	χ^2	P	Results
D0-D6	6.411	> 0.05	Not significant	9.210	< 0.05	Significant
D0-D12	9.619	< 0.05	Significant	10.84	< 0.05	Significant
D0-D18	14.89	< 0.05	Significant	15.77	< 0.05	Significant

From the above table, it is seen that the effect of treatment is significant for Burning Micturition in Group 1 on D12 & D18. In Group 2, it is significant on each follow up.

5. Assessment of Effect of Treatment on Frequency of Micturition at Night No. of Patients having Frequency of Micturition at Night

Grade	Group 1 (Snehapana)				Group 2 (Uttarbasti)			
	D0	D6	D12	D18	D0	D6	D12	D18
0	1	4	5	10	2	7	10	14

1	10	13	15	12	12	14	12	11
2	14	9	7	5	13	7	6	4
3	5	4	3	3	3	2	2	1

Effect of Treatment (χ^2 Test)

Day	Group 1 (Snehapana)			Group 2 (Uttarbasti)		
	χ^2	P	Results	χ^2	P	Results
D0-D6	3.389	> 0.05	Not significant	4.932	> 0.05	Not significant
D0-D12	6.500	> 0.05	Not significant	8.112	< 0.05	Significant
D0-D18	9.422	< 0.05	Significant	13.34	< 0.05	Significant

From the above table, it is seen that the effect of treatment is significant for Frequency of Micturition at Night in Group 1 only on last day of treatment. In Group 2, it is significant on D12 & D18.

Comparative Evaluation of Results

1. Comparative Assessment of Effect of Treatment on Haematuria As seen earlier, the effect of treatment of *Panch-*

walkala Ghrita given orally for Haematuria is insignificant on the last day of treatment; but it is significant on the last day if given by *Uttarbasti*.

2. Comparative Assessment of Effect of Treatment on Pain

Difference of no. of Patients between D0 & D18 having Pain

Grade	Group 1 (Snehapana)	Group 2 (Uttarbasti)
0	10	12
1	4	4
2	2	5
3	4	3
χ^2 Calculated = 1.257 χ^2 Table = 7.82 P > 0.05		

As the above table shows χ^2 calculated < χ^2 table i.e. test is insignificant. It means effect of treatment of *Panch-walkala Ghrita* on Pain is same in both groups.

Difference of no. of Patients between D0 & D18 having Burning Micturition

3. Comparative Assessment of Effect of Treatment on Burning Micturition

Grade	Group 1 (Snehapana)	Group 2 (Uttarbasti)
0	11	12
1	4	3
2	3	6
3	4	3
χ^2 Calculated = 1.245 χ^2 Table = 7.82 P > 0.05		

As the above table shows χ^2 calculated < χ^2 table i.e. test is insignificant. It means effect of treatment of *Panch-walkala Ghrita* on Burning Micturition is same in both groups.

4. Comparative Assessment of Effect of Treatment on Frequency of Micturition at Night

Difference of no. of Patients between D0 & D18 having Frequency of Micturition at Night

Grade	Group 1 (Snehapana)	Group 2 (Uttarbasti)
0	9	12
1	2	1
2	9	9
3	2	2
χ^2 Calculated = 0.676 χ^2 Table = 7.82 P > 0.05		

As the above table shows χ^2 calculated < χ^2 table i.e. test is insignificant. It means effect of treatment of Panch-walkala Ghri-

ta on Frequency of Micturition at Night is same in both groups.

Overall Assessment of Results

Effect of Treatment	Group 1 (Snehapana)	Group 2 (Uttarbasti)
Cured	9	11
Moderate improvement	9	7
Mild improvement	4	7
No improvement	8	5
χ^2 Calculated = 1.960 χ^2 Table = 7.82 P > 0.05		

As the above table shows χ^2 calculated < χ^2 table i.e. test is insignificant. It means effect of treatment of Panch-walkala Ghrita whether given orally or by Uttarbasti is same in both groups.

tistically same result on reducing pain during micturition. Here the result was obtained faster in Group 2. It may be due to Snigdha Guna of Ghrita which acted faster locally to normalize the Sthanika Vata Dosh.

DISCUSSION

The clinical features of cystitis were analysed statistically & are discussed here. The Chi Square test was applied while analysing the observed data.

Haematuria: It is seen that the effect of treatment is not significant for Haematuria in Group 1. But it is significant in Group 2 only on last day of treatment. So the effect of therapy given in Group 2 is more effective than Group 1. It may be due to the fact that absorption of the drug is faster in Uttarbasti route than the oral route because of the vascular mucosa of the bladder. Modern science also supports this fact.

Pain: It is seen that the effect of treatment is significant for Pain in Group 1 only on last day of treatment. In Group 2, it is significant on day 12 & day 18. When both groups were analysed on day 18 by Chi Square test, no significant result was obtained. It means that both groups have sta-

Burning Micturition: It is seen that the effect of treatment is significant for Burning Micturition in Group 1 on day 12 & day 18. In Group 2, it is significant on each follow up. When both groups were analysed on day 18 by Chi Square test, no significant result was obtained. It means that both groups have statistically same result on reducing burning during micturition. The result may be due to the fact that the Dravyas used are Sheeta Veerya & Kashaya Rasatmaka. Also they were given in the form of Siddha Ghrita which is Pittashamaka. Hence all these Dravyas having Pittashamaka activity resulted in the decrease of burning sensation. Local route is faster than oral route. So, the result was faster in Group 2.

Frequency of Micturition at Night: It is seen that the effect of treatment is significant for Frequency of Micturition at Night

in Group 1 only on last day of treatment. In Group 2, it is significant on day 12 & day 18. When both groups were analysed on day 18 by Chi Square test, no significant result was obtained. It means that both groups have statistically same result on reducing Frequency of Micturition at Night. Here, increased frequency of micturition is due to associated symptoms (pain & burning). So, as the associated symptoms decreased, the result was obtained as the decrease in the frequency of micturition.

CONCLUSION

From the above study, the following conclusions can be drawn

1. *Pancha-walkala Ghrita* is significantly effective for the treatment of *Pittaja Mutrakruhira* whether given orally or by *Uttarbasti*.
2. When given orally, *Pancha-walkala Ghrita* is found to be significantly effective in reducing pain during micturition, burning micturition & frequency of micturition at night. But the result was insignificant for reducing haematuria.
3. When given by *Uttarbasti*, *Pancha-walkala Ghrita* is found to be significantly effective in reducing haematuria, pain during micturition, burning

micturition & frequency of micturition at night.

4. The effect of *Pancha-walkala Ghrita* is faster when administered by *Uttarbasti*.

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CORRESPONDING AUTHOR

Dr. Chaudhari Kushal Chhotu

M. S. Scholar, Department of Shalya Tantra, Govt. Ayurved College, Vazirabad, Nanded, Maharashtra, India

Email: kushalc17987@gmail.com

Source of support: Nil

Conflict of interest: None Declared