



“A Comparative Clinical Study To Evaluate The Efficacy of Vastyamayantaka Ghrita And Chinch Kshara In Mutraashmari W.S.R To Urolithiasis”

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ABSTRACT

In Ayurvedic classics *Mutraashmari* is a disease of *Mutravaha Srotas*, having the symptoms like pain in any of the organs of urinary system like *Basti*, *Mehana*, *Sevani* during micturition, obstruction in flow of urine, haematuria and urine resembling *Gomedaka* is described, which goes in accordance with the symptoms of Urolithiasis. Acharya Sushruta has explained management including both *Shastrakarma* and *Bheshaja Prayoga* for *Mutraashmari* like *Ghrita*, *Taila*, and *Kshara prayoga* etc. In this present clinical study, *Vastyamayantaka Ghrita* and *Chinch Kshara* are selected to compare their efficacy in the management of *Mutraashmari*.

The clinical trial was conducted with the aim to compare the efficacy of *Vastyamayantaka Ghrita* and *Chinch Kshara* in the management of *Mutraashmari* w.s.r to urolithiasis. The trial was carried out by randomly including the patients in to 2 groups of 20 each. In Group A- patient was advised to take 10 ml of *Vastyamayantaka Ghrita* twice daily morning in empty stomach and evening, after complete digestion of lunch. *Anupana*: hot water. The patient was also advised to take food only after the complete digestion of *Ghrita* (*shudha udgara*). In Group B- The patient was advised to take *Chinch Kshara* 500mg twice daily diluted with 30 ml water before food. Study period was 21 days. During treatment assessment was done on 7th, 14th and on 21st day. Follow up was done once in 15 days for next 2 months after study duration. The effect of the treatments was assessed statistically on the basis of gradation of prime signs and symptoms before and after treatment.

The test of significance showed that both *Chinch Kshara* and *Vastyamayantaka Ghrita* have shown significant result. But on comparison between groups, the result was insignificant. For parameters like Pain, Haematuria, Dysuria and reduction in size of stone *Chinch Kshara* has shown slightly better result while in descent of stone *Vastyamayantaka Ghrita* shows better result

KEY WORDS: Chinch Kshara, Vastyamayantaka Ghrita, Mutraashmari, Urolithiasis

Introduction

Urolithiasis is one of the oldest distressing maladies known to mankind since time immemorial. Changes in dietary practices and global warming may be a key driving force for the incidence and prevalence of Urolithiasis increasing globally. Its prevalence rate is estimated as greater than 10%. The average life time risk is 5-10%. It is commonly seen between the age of 30 to 60 yrs and the male and female ratio is said to be 1.82:1.¹

Urolithiasis refers to stones originating anywhere in the urinary system, including the kidneys and bladder. The hallmark symptom of a stone that obstructs the ureter or renal pelvis is excruciating and intermittent

pain that radiates from the loin to the groin or to the inner thigh. This pain, usually known as ureteric colic, is often described as one of the strongest pain sensations known.^{2,3} Other clinical features include renal pain, haematuria and presence of calculi. *Mutraashmari* which is found congruent to urolithiasis is explained by *Acharya Susruta* as 4 types *Vataja*, *Pittaja*, *Kaphaja* and *Shukraja*. The commonest features explained are pain in any of the organs of urinary system like *Basti*, *Mehana* and *Sevani* during micturition, obstruction in flow of urine, haematuria and urine resembling *Gomedaka*⁴.

The treatment of urinary calculus in modern science includes conservative treatment like flush therapy, medical expulsive therapy using alpha-antagonists or calcium- channel blockers, Non-surgical management includes ESWL and Dormia basket procedure and operative treatment includes advanced techniques like PCNL, Ureteroscopy, Pyelolithotomy, Nephrolithotomy etc^{2,3}. All these modern treatment modalities demands highly sophisticated hospital facilities along with expert hands.

Acharya Susruta describes multifocal treatment modalities including *Shastrakarma* and *Bheshaja Prayoga* for *Mutraashmari* like *Ghrita*, *Taila*, and *Kshara prayoga* etc⁵. In this present clinical study, *Vastyamayantaka Ghrita*⁶ and *Chincha Kshara*⁷ are selected in the treatment of *Mutraashmari*. *Vastyamayantaka Ghrita* which is mentioned in *Sahasrayoga* for *Mutraashmari Chikitsa* is effective in all types of urinary disorders as this formulation comprises of *Mutrala*, *Vasti Vishodhana*, *Bhedana*, *Daha Prashamana* and *Ashmarighna* properties. *Kshara* is useful in the management of *Mutraashmari* due to its alkaline nature and it also comprises the properties like *Chedana*, *Bhedana*, *Lekhana*, *Darana Shodhana* *Ashmarighna* and *Mutrakrichrahaa*.^{7,8} *Chincha* one among the *Kshara Ashtaka* is having properties like *Ushna Virya*, *Daha Prashamana*, *Mutrala* and *Kaphahara*⁹. These positive attributes of above formulations have motivated the study. Thus the present study is intended to compare the efficacy of *Vastyamayantaka Ghrita* and *Chincha Kshara* in the management of *Mutraashmari*.

Clinical study

The trial was carried out by randomly including the patients in to 2 groups of 20 each.

Group A- patient was advised to take 10 ml of *Vastyamayantaka Ghrita* twice daily morning in empty stomach and evening, after complete digestion of lunch.

Anupana: hot water

The patient was also advised to take food only after the complete digestion of *Ghrita* (*shudha udgara*)

Group B- The patient was advised to take *Chincha Kshara* 500mg twice daily diluted with 30 ml water before food

Study period-21 days.

Follow up- Once in 15 days for next 2 months after study duration.

Criteria of selection of patient

The clinical trial was performed in patients selected from OPD and IPD of Alva's Ayurveda Medical College Hospital, Moodbidri and Special Medical Camps and other referrals. Selection was done by simple random sampling, between the age group of 16 to 60 years irrespective of Sex, Religion, Marital Status and Socio-Economic Status.

Diagnostic criteria

Patients with complaints of *Samanya Lakshanas* of *Mutraashmari* as per the classics like

- Mahathi* Vedana/Severe pain at loin region.
- Sarudhira Mutrata*/Haematuria
- Vedana* in *Nabhi Pradesha*, *Basti Pradesha*, *Sevani Pradesha*, *Mehana Pradesha*/

Radiating colicky pain

- Mutrakrichra*/Dysuria
- The presence of calculi confirmed by ultrasonography.

Inclusion Criteria:

- Patients with *Samanya Lakshana* of *Mutraashmari* as per classical reference.
- Presence of calculi up to 8 mm size.
- Calculi with or without mild hydroureteronephrosis is confirmed by USG abdomen.
- Calculi present in kidney, ureter, and urinary bladder.
- Patient with solitary or multiple stones.
- Patient with age between 16 to 60 years.

Exclusion Criteria:

- Patient with retention of urine due to any other pathology, renal failure, moderate and severe hydroureteronephrosis, acute urinary tract infection and other diseases of urinary system.
- Patient with other systemic disorders like carcinoma, tuberculosis, uncontrolled diabetes etc.
- Presence of calculi during pregnancy and lactation.

Investigation

1. USG - Abdomen and Pelvis- was done before and after treatment.
2. Urine routine.
3. Any other investigations, if necessary.

RESULTS

Assessment of the condition was done based on detailed Performa adopting standard scoring method of subjective parameters(pain, haematuria and dysuria) and objective parameters (Size and Descent of the calculi). The data was collected from patient before the treatment, after 7th day, 14th day and 21st day. Size and Descent of the calculi were assessed before treatment and on 21st day.

EFFECT OF TREATMENT IN SIGNS AND SYMPTOMS ON 21st DAY IN GROUP A

Signs and Symptoms	Mean		%	SD ± SE	“t” Value	“p” Value
	BT	AT				
Pain Abdomen	2.55	0.9	65	0.718±0.161	12.568	<0.05
Haematuria	0.45	0.0	100	0.000±0.000	2.517	<0.05
Dysuria	2.00	0.50	75	0.513±0.115	9.747	<0.05
Descent of Calculi	1.00	0.55	45	0.510±0.114	3.943	<0.05
Size of Calculi	3.00	1.10	57	0.801±0.179	9.488	<0.05

There is a statistically significant change in all the signs and symptoms (P<0.05)

EFFECT OF TREATMENT IN SIGNS AND SYMPTOMS ON 21st DAY IN GROUP B

Signs and Symptoms	Mean		%	SD ± SE	“t” Value	“p” Value
	BT	AT				
Pain Abdomen	2.45	1.1	55	0.553±0.124	10.283	<0.05
Haematuria	0.45	0.00	100	0.000±0.000	2.651	<0.05
Dysuria	1.85	0.45	77	0.510±0.114	10.660	<0.05
Descent of Calculi	1.00	0.4	60	0.503±0.112	5.332	<0.05
Size of Calculi	3.00	1.55	48	0.826±0.185	7.855	<0.05

There is a statistically significant change in all the signs and symptoms (P<0.05)

COMPARATIVE EFFECTS OF BOTH TREATMENTS IN SIGNS AND SYMPTOMS ON 21st DAY

Signs and Symptoms	Mean Difference		Percentage Relief %		“t” Value	“p” Value
	Group A	Group B	Group A	Group B		
<i>Pain abdomen</i>	1.35	1.65	55	65	1.616	>0.05
<i>Haematuria</i>	0.45	0.45	100	100	0.000	>0.05
<i>Dysuria</i>	1.40	1.50	77	75	0.490	>0.05
<i>Descent of Calculi</i>	0.6	0.45	60	45	0.936	>0.05
<i>Size of Calculi</i>	1.45	1.70	48	57	0.972	>0.05

There is statistically no significant difference between Group A and Group B. In all the parameters like pain abdomen, haematuria, dysuria, descent of calculi and size of calculi $P > 0.05$

Discussion

The assessment of the patient was done on 7th, 14th and 21st day.

Response on criteria:

Assessment on the 21st day shows that parameters like pain abdomen, haematuria and Dysuria showed significant result in both group i.e. $P < 0.05$. On comparison between the groups there was no significant difference obtained i.e. $P > 0.05$. It shows that both drugs are having almost similar effect on all the symptoms considered of *Mutraashmari*.

- ❖ The main *Doshas* involved in the formation of *Ashmari* are *Vata* and *Kapha*. So *Vata Kapha Shamana* properties of *Vastyamayantaka Ghrita* as well as *Chincha Kshara* found to be effective in *Samprapthi Vighatana* of the *Ashmari*.
- ❖ The alkaline nature of *Chincha Kshara* may be helpful to neutralize the hyper acidity of urine.
- ❖ The *Shodhana* and *Ropana* properties of the *Kshara* which will acts on the condition of lacerated mucosal surface of the urinogenital tract due to the friction of prickly and spiky types of *Ashmari* and thereby reduces haematuria.
- ❖ The *Chedana*, *Bhedana*, *Lekhana* properties may be the cause for the disintegration of stone into minute particles. As a result of this diameter of the stone will be reduced and meanwhile the congestion on the surrounding area will decreases. Through this the Pain and Dysuria will be reduced. These properties present in both *Vastyamayantaka Ghrita* and *Chincha Kshara*.
- ❖ In *Vastyamayantaka Ghrita* drugs like *Mustha*, *Haritaki* have *Lekhana* property, drugs like *Sringivera*, *Vibheetaki* have *Bhedana* property and drugs like *Darvi*, *Shilajathu* have *Chedhana* property.
- ❖ *Vasthi Visodhana* guna of drugs like *Narikera jala*, *Kusthumbari* and *Mutrala*, *Mutravirechaniya*, *Vata Shamana* properties of other drugs together with *Snigdha Guna*, palliate the aggravated *Apana Vayu* and finally help in expulsion of disintegrated particles.
- ❖ Due to *Samskarasya Anuvarthana Guna* of *Ghrita*, along with properties of the formulations and *Snigdha Guna* of *Ghrita* helps for the descent of calculi. Also the same properties along with *Vrana Shodhana* and *Ropana* properties will reduce the haematuria.
- ❖ Most of the ingredients in *Vastyamayantaka Ghrita* have *Ashmarighna* and *Mutrakrichra hara* properties.

CONCLUSION

- *Acharya Susruta* has explained about different types of *Mutraashmari* which is found congruent to Urolithiasis

- *Kapha* and *Vata*, play a major role in the formation of stone from the beginning till the end
- *Mutra Vegavarodha*, hot climate and lesser intake of water, fast foods and soft drinks has a significant role in the pathogenesis of Ashmari.
- In this clinical study Chinchu kshara and *Vastyamayantaka* ghrita has been taken to compare their efficacies in *Moothrashmari*. Both *Vastyamayantaka ghrita (Group A)* and *Chinchu kshara (Group B)* have shown significant result on all the parameters taken for the study while the comparative effect between the two groups is found to be insignificant.
- For parameters like Pain, Haematuria, Dysuria and reduction in size of stone Chinchu Kshara has shown slightly better result while in descent of stone *Vastyamayantaka Ghrita* shows better result.
- *Nidana parivarjana*, Proper hydration and healthy food habits should be adopted to prevent the recurrence of the disease.

List of references:

1. Nalim.H.Sofia, Manicka Vasakam, Thomas.M. Walter, Prevalence and Risk factors of Kidney Stone ; Global Journal for Research Analysis X183 Vol 5, Issue 3 March 2016 ISSN no 2277-8160
2. Dr Somen Das, A Concise Text Book of Surgery, published by Dr S Das- Kolkata. 6th edition, pgno.1189-1209.
3. Bailey and Love's Short Practice of Surgery edited by RCG-Russell, Norman S Williams and Christopher J.K Bulstrodes - International Students Edition, 24th edition, pg no 1295
4. Acharya Sushruta, Sushruthasamhita with Nibandhasangraha Commentary of Dalhanacharya and Nyayachandrika Panchika of Gayadasa on Nidanasthana-edited by Yadavji Trikamji, Chaukamba Orientalia,Varanasi. 9th edition 3rd chapter, pg no 276.
5. Acharya Sushruta, Sushruthasamhita with Nibandhasangraha Commentary of Dalhanacharya and Nyayachandrika Panchika of Gayadasa on Chikitsasthana- edited by Yadavji Trikamji, Chaukamba Orientalia,Varanasi. 9th edition, 7th chapter, pg no 435
6. Sahasrayogam- by Dr. K.Nishteswar and Dr. R. Vidyanath published by Chowkhamba press, Varanasi.second-2008 pg no 75.
7. Rasa tarangani of Acharya Sadanand Sarma, Edited by Pandit Kashinath Shastri, Published by Motilal Banarasidas Bangalo Road, Jvabar Nagar Delhi. 11th Edition Chapter 14 Shloka 64 page no343
8. AcharyaSushruta, Sushruthasamhita with Nibandhasangraha Commentary of Dalhanacharya and NyayachandrikaPanchika of Gayadasa on Sutrasthana- edited by Yadavji Trikamji, Chaukamba Orientalia, Varanasi. 9th edition, 11thchapter, pgno-45.
9. Dr. J L N Sastry, Dravya Guna Vijnana, Volume-2, Chaukhambha Orientalia, Varanasi. 3rd edition 2008, pg no- 718,719.