

Clinical effect of *Ashmarihara Kwatha* in the management of *Mootrashmari* (Urinary calculus) - Short communication

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Abstract:

Mootrashmari is most common disease of urinary system and is considered as one among the *Ashtamahagadas* by our *Acharya* and is one of the most important disease of *Mutravahasrotas* where both medicinal and surgical interventions are required. It is correlated with urolithiasis and now a days due to food and lifestyle variations it has become a global problem. In the present study an effort has been made to evaluate the efficacy of *Ashmariharakwatha*. This formulation is *Anubhuta Yoga* of Pharmacy Gujarat Ayurved University, Jamnagar. The main aim of this particular study was inclined towards the disintegration, dissolution and dislodgement and expulsion of renal stones. Total 20 patients were treated with *Ashmarihara kwatha*, 20 ml, twice daily, after food for 60 days. After completion of study symptomatic relief was noted with *Ashmarihara kwatha* in all patients and stones in 11 patients were expelled out. The study concluded that *Ashmarihara Kwatha* single formulation is found effective in improving the symptoms of *Ashmari*.

Keywords: *Ashmari*, *Ashmarihara kwatha*, *Ashtamahagada*, *Mootrashmari*, Renal Calculus, urinary stone

Introduction:

Mootrashmari is one of the most important disease of *Mutravahasrotas* where both medicinal and surgical treatment are advised and also it is considered among the *Ashtamahagadas*.^[1-2] It is correlated with Urolithiasis in modern parlance. It is a common malady and can form *denovo* anywhere within the urinary tract.^[3] The pathophysiology differs according to the site of origin. Urinary stone can recur, with lifetime recurrence risks are reported to be very high as 50%. It forms when urine becomes supersaturated with respect to the specific components of the stone. In India almost 5-7 million persons suffer from

stone disease and at least 1/1000 of Indian population needs hospitalization. Thus the disease is as widespread as it is old particularly in countries with dry, hot climate they are “stone belt regions”. In Gujarat, particularly in Saurashtra region the incidence of *Mootrashmari* is increasing day by day because of high salt content of water. The recurrence rate is also very high i.e. 50-80%, male are more frequently affected than female (ratio 4:3). The incidence is still higher in the age group between 26 to 50 years of age.

In Ayurveda various drugs are mentioned in order to cure *Mootrashmari* which are

not only expensive but chances of recurrence are also not ensured by them. Therefore there is a need to find out efficient and economical medicine to treat it. *Ashmarihara kwatha* has been used effectively to treat renal ailments since years, in OPD and IPD of IPGT & RA hospital Jamnagar. [4] This formulation is effective and easy to administer so this has been taken for treatment purpose. *Ashmarihara Kwatha* is having anti-inflammatory, diuretic, antilithic etc. property through which acts on the stone and helps in the treatment of *Mootrashmari*. So this study has been planned to evaluate the therapeutic effect of *Ashmarihara Kwatha* in the management of *Mootrashmari*.

Material and Methods:

Patients having signs and symptoms of *Mootrashmari* (Urolithiasis) that are pain in the renal angle and loin region radiating towards groin, burning micturition, hematuria, vomiting were selected irrespective of sex, religion, occupation from OPD and IPD of Shalya Tantra, I.P.G.T.&R.A.Hospital, Jamnagar.

Inclusion criteria:

All *Ashmari* patients of age group 18-60 years with stone at kidney and ureter

having stone size up to 15 mm were included in the study.

Exclusion criteria:

Stone size more than 15 mm with severe hematuria and renal failure were excluded from study. Patients of carcinoma, Tuberculosis, HIV, Hepatitis-B, VDRL positive cases were excluded from study.

Laboratory investigation:[6]

Hb%, CBC, ESR, FBS. Blood Urea, Serum- Creatinine, uric acid, Calcium. etc.

Urine examination: Routine & Microscopic.

Plain X-ray abdomen and USG for Kidney, Ureter and Bladder (KUB) region.

All the above mentioned investigations were carried out before and after treatment. Changes in the values and in sign and symptoms were recorded in the research proforma.

Drug:

Ashmarihara kwatha, [8] 20 ml with thrice a day was given for 60 days (Table-1).

The patients were assessed on the basis of the subjective parameter [Pain in abdomen, Hematuria, Dysuria] and objective parameters [size of stone, site of stone and number of Stone] before and after treatment.

Table-1: Ingredients of *Ashmarihara kwatha*:

Ingredients	Latin names	Quantity
<i>Pashanabheda</i>	<i>Bergenia ligulata</i> (Wall.) Engl.	1 Tola
<i>ShakaPhala</i>	<i>Tectona grandis</i> Linn.	1 Tola
<i>ErandakarkatiMula</i>	<i>Carica papaya</i> Linn.	1 Tola
<i>Shatavari</i>	<i>Asparagus racemosus</i> Willd.	1 Tola

<i>Gokshura</i>	<i>Tribulus terrestris</i> Linn.	1 Tola
<i>VarunaTwaka</i>	<i>Crataeva nurvala</i> BuchHam.	1 Tola
<i>KushaMula</i>	<i>Desmostachya bipinnata</i> Stapf.	1 Tola
<i>KashaMula</i>	<i>Saccharum spontaneum</i> Linn.	1 Tola
<i>TandulaMula</i>	<i>Oryza sativa</i>	1 Tola
<i>Punarnava</i>	<i>Boerhavia diffusa</i> Linn.	1 Tola
<i>Guduchi</i>	<i>Tinospora Cordifolia</i> Willd	1 Tola
<i>ApamargaMula</i>	<i>Achyranthes aspera</i> Linn.	1 Tola
<i>TrapushaBija</i>	<i>Cucumis sativus</i> Linn.	1 Tola
<i>Jatamansi</i>	<i>Nardostachys jatamansi</i> DC.	2 Tola
<i>Ajamoda</i>	<i>Carum roxburghianum</i> (DC) Craib.	2 Tola

Table-2: Effect of therapy on size of stones:

Effect on stone	1-5 mm	6-10 mm	> 10 mm	Total	Percentage
Expelled	9	5	2	16	33.33%
Decrease	3	3	7	13	27.08%
No change	1	3	4	8	16.66%
Increase	8	3	0	11	22.91%
Total	21	14	13	48	100%

Table-3: Effect of Ashmarihara Kwatha on Chief Complaint: n=22

Chief Complaints	Mean		Diff.	% Change	W	N	P
	BT	DT					
Pain (<i>Vedanaa</i>)	2.55	0.95	1.60	62.74	190	19	<0.0001
<i>Mootradhara Sanga</i> (Interrupted urine flow)	1.50	0.20	1.30	86.67	105	14	<0.0001
<i>Sarudhira Mootrataa</i> (Haematuria)	0.45	0.10	0.35	77.78	21	06	< 0.05
<i>Ati Aavila Mootrataa</i> (Turbid urine)	0.55	0.15	0.40	72.72	18	06	> 0.05
Increased frequency of micturition	0.65	1.15	-0.50	-76.92	-75	14	< 0.05
Burning Micturition	1.50	0.40	1.10	73.33	127	16	< 0.001

Observations and results:

All the patients were advised to take similar dietary regimen. The duration of treatment was 60 days and clinical

assessment was done in every 15th day interval. The initial findings through clinical, pathological and radiological statements were compared with the result

of progressive 15th day and 30th day and so on. Finally the assessment as a whole was presented in percent value. In order to present the study in the scientific manner the statistical assessment of the result were assessed of result mean \pm S.D. of each sign and symptom before treatment was compared with mean \pm S.D. after treatment, t test was used for the purpose of the test of significance the effectiveness of *Ashmariharakwatha* and was assessed through p-value.

In this study, all patients were treated with *Ashmarihara Kwatha* in which 21 stones of less than 5 mm size were found, out of which 9 were expelled out, 3 were decreased in size, no change was observed in 1 stone whereas 8 stones were increased in size. Total 14 stones of 6-10 mm size were found, out of which 5 stones were expelled out, 3 stones were decreased in size, no change was observed in 3 stones whereas 3 stones were increased in size. Total 13 stones of more than 10 mm size were found, out of which 2 stones were expelled out, 7 stones were decreased in size, no change was observed in 4 stones whereas no stone was increased in size (Table-2).

Among total 48 stones, 46 kidney stones of different sizes were found in 20 completed cases. 32.61% stones were expelled out, 28.26% stones were found with decreased in size and no change was observed in 15.22% stones whereas increase in stone size was observed in 23.91% of stones. Out of 48 stones, 2 ureteric stones of different sizes found in 20 completed cases. One (50.00%) stone was expelled out and one another

(50.00%) stone was found with no change in size. Out of 20 patients in this study 8 patients (40.00%) were cured, 6 patients (30.00%) were got marked improvement, 4 (20.00%) patients were got moderate improvement and no improvement was seen in 2 (10.00%) patients.

In this observational study, statistically highly significant results were observed in pain (*Vedanaa*), *Mootradhaaraa Sanga* and burning micturition. Statistically significant results were observed in haematuria (*Sarudhira Mootrataa*) and increased frequency of micturition. Insignificant result was observed in feature of *Ati Aavila Mootrataa* (Turbid urine) Table-3.

Discussion:

From the present study it becomes evident that urological problems form an important part of medical deliberations. After completion of treatment statistically highly significant results were observed in pain (*Vedana*), *Mootradhara Sanga* and burning micturition. Statistically significant results were observed in haematuria (*Sarudhira Mootrata*) and increased frequency of micturition. Insignificant result was observed in feature of *Ati Aavila Mootrataa*. Most of the ingredient have *Tikta-KashaayaPradhanRasa*, *Laghu Ruksha Guna*, *Sheeta Veerya*, *Katu Vipaka* and *Vatakapha Shamaka* properties & have *Mootrala*, *Vedana sthaapana*, *Anulomana* and *Bastishodhana Karma*. It causes relief in symptoms of *Ashmari* by *VataKaphaShamana*, *Vedanaasthaapana*, *Shothahara*, *Mootrala*, *Rasayana* and *Anulomana* properties.

It helps in disintegration of *Ashmari* by *Laghu Ruksha Guna and Vata-Kapha Shamana* and also *Yava Kshara* used as *Prakshepadravaya* added some *Lekhana* and *Chhedana* properties. It helps in expulsion of *Ashmari* by *Mootrala, Bastishodhana and Anulomana* properties. It also corrects *Agni* by *Pachana* and *Anulomana* property, so prevents formation of *Aama*, causes *Pachana* of *AamaDashes* and breaks the pathogenesis of *Ashmari* leading to prevention of further *Ashmari* formation. *Ashmarihara Kwatha* is proved as effective drug in treatment of *Ashmari* which helps in removal of stone as well as corrects the *Agni* & metabolism.

Conclusion:

This observational study concluded that *Ashmarihara Kwatha* showed symptomatic relief in the management of *Mootrashmari* (urinary calculus). Further study to be done with comparison with standard controlled group for its scientific validation.

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