

A CLINICAL STUDY ON EFFICACY OF APAMARGA KSHARA ALONG WITH YAVA KSHARA IN MOOTRASHMARI (UROLITHIASIS)

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ABSTRACT

Mootrashmari - an *Ashmavatghana* structure generated in *Mootravahastrotas*. Usually recognized by a classical pain, termed as '*Yamopama*' in classics. In the modern arena, for *Mootrashmari* (Urolithiasis) surgical procedures are the only treatment of choice which are not conducive enough as they hold the disadvantages of high expenditure, side effects and disease recurrence. It is in this dire situation, the desperate need to find conservative medicine which is an inexpensive, effective and appropriate medicine to treat *Mootrashmari* which has very less disadvantages which can avoid the recurrence. So a clinical trial was carried out in 30 patients presented with signs and symptoms of *Mootrashmari* irrespective of their sex, religion, Occupation to see efficacy of '*Apamargkshara along with Yavakshara* for *ksharana of mootrashmari*. In present Clinical trial a combination of '*Apamarg kshara along with Yava kshara*' was given in dose of 250mg (125mg of each) with cold water before food b.i.d. for 15 days to each subject. There was overall 98.43% relief in vedana symptom, 97% relief in *mootrakrucchata*, *mootradhara sang* & 86.05 % relief in size of mootrashmari. Hence it is concluded that *Apamarg kshara* along with *Yavakshara* is significant in the management of *Mootrashmari*.

Key Words: *Apamarg kshara, Ksharan, Mootrashmari, Yava kshara.*

INTRODUCTION

'*Ashmari*' comprises of two words '*Ashma*' (stone or gravel) and '*Ari*' (enemy). *Ashmari* is a disease in which there is formation of stone, exerting great suffering to man like an enemy.

Ayurveda considered *Ashmari* mainly as '*Mootraashmari*' (Urolithiasis), which is emerging as a sequel to deranged mootrapravritti leading to deterioration in urine secretion and micturition. *Mootrashmari* is a disease of *Mootravahastrotas* and considered as one of the '*Ashtamahagadas*' i.e. one of the deadly diseases¹.

The symptoms of mootrashmari like excruciating pain over *nabhi*, *basti*, or *at sevani*, *medra* during micturition, sud-

den stoppage of urine flow, blood stained urine, twisting and slitting of urine, aggravation of pain during running, jolting etc.², go on in accordance with symptoms of urolithiasis of modern science. Hence urolithiasis can be co-related with the mootrashmari mentioned in ayurveda.

Urolithiasis is the state describing the presence of calculi within the urinary system. It is estimated to afflict 2% of the total world's population but are particularly common in some geographic areas such as in parts of the United States, India, South Africa, South East Asia. Men are more affected than women with the ratio

of 3:1. Initial presentation predominates in the third and fourth decades.

Intrinsic factors in the genesis of stone are related to inherit, biochemical or anatomical make-up of the individual. Endocrine abnormality may also be the cause for stone formation. Environmental, temperature, water intake, diet, social class, genetical predisposition and occupation play major role in the formation of the renal calculi.

Geographical factors contribute to the development of renal calculi. Areas of high humidity and elevated temperatures appear to be contributing factors, and the incidence of symptomatic ureteral stone is greatest during the hot summer months.

In the modern arena, surgical procedures remain the only treatment of choice and are not conducive enough as they hold the disadvantages of high expenditure, side effects and disease recurrence. It is in this dire situation, the desperate need to find conservative medicine which is an inexpensive, effective and appropriate medicine to treat *Mootrashmari* which has very less disadvantages which can avoid the recurrence.

Keeping all the above points in mind a study was conducted in SSNJ Hospital, Solapur where 'Apamarg kshara along with Yava kshara' was given in 30 patients.

AIM AND OBJECTIVES:

1. To study efficacy of *Apamargkshara* along with *Yavakshara* in *mootrashmari* for its disintegration, dissolution, dislodging and expulsive property.
2. To experiment and see whether significant relief can be provided by this drug.

MATERIALS AND METHODS:

*Aushadhi yoga: Apamarg kshara and yava kshara*³

Dose : *Aparmargkshara* 125 mg + *Yavakshara* 125 mg = Total 250mg⁴

Orally before meal with cup of cold water b.i.d

Duration: firstly for 15 days after repeated laboratorial investigations continue for 15 days.

Method of preparation:

Panchanga of *Apamarg* and *yava*-collected separately. It was dried in shed. *Drypanchanga* was divided into small pieces. Then with the help of *Sesamum*-talks (*Tila*) and pebbles of limestone they were ignited. When the fire burnt out, the *bhasma* (ash) and *Bhasmasharkara* (the slake lime) collected separately. Weight of collected ash noted. Then the ash dissolved in four parts of water and kept it for whole night. On next day filtered it 3 times. Then again it was kept on fire until the entire water got evaporated. White colored residue obtained was *Apamargkshara* and *yava kshara*⁵.

Inclusion criteria:

1. Patients of age group 15yrs to 55yrs of both sexes irrespective of religion, occupation and Socio-economic status.
2. Patients presenting symptoms of '*Mootrashmari*' according to classics along with findings of calculus in kidney, ureter, bladder by one of the diagnostic method like USG, X-Ray KUB etc.

Rejection Criteria :

1. Patients belonging to age group below 15yrs. and above 55 yrs.
2. Patients of *mootrashmari* with any complications.
3. Patients of *mootrashmari* suffering from *teevravedana*, *uccharaktadab*, *Saraktamootrapravrutti* .
4. Patients those who do not follow instruction of *vaidya*.

ASSESSMENT CRITERIA:

The efficacy of therapy was assessed on the basis of Subjective parameter (Sign and symptoms of 'Mootrashmari') as described in various ayurvedic texts before and after treatment⁶. Symptoms were graded as follows

1. Nabhi - basti - sevani - mehaneshuvedana
2. Vishirnadharmootrapravrutti
3. Mootrakrichhata / mootrasanga

Table no. 1: Gradation of symptoms for assessment

Subjective parameter	Score
All the three symptoms present	3
Only two symptoms present	2
Single symptom present	1
No any symptom	0

Also the assessment done by objective parameter2. X-ray – KUB plain after preparation before and after treatment:

1. USG - abdomen

3. Urine examination

OBSERVATION AND RESULTS:

Table No. 2: Sex wise distribution of patient

Sex	No. of Respondents	%
Male	22	73.33
Female	8	26.67
Total	30	100.00

In present study male patients were found to be more prone to Mootrashmari than female

Table No.3: Age wise distribution of patients

Age(yrs.)	No. of Respondents	%
20-30	14	46.67
30-40	08	26.67
40-50	05	16.67
>50	03	10.00
Total	30	100.00

In Present study maximum patients were found in age group 20-30

Table.No.4: Distribution of patients according to Chronicity of disease

Chronicity in days	No. of patients	%
≤30	22	73.33
31-60	04	13.33
61-90	01	03.33
91-120	0	00.00
121-150	01	03.33
>150	02	06.67
Total	30	100.00

In present study more patients were having complaints less than 30 days

Table no. 5: Relief in symptoms at different follow up of patients by Apamarg and Yavakshara

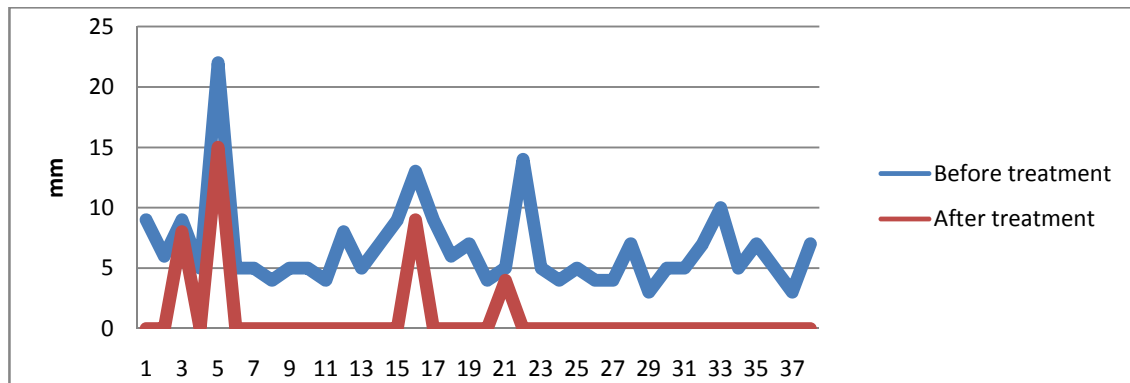
Complaint Type	Mootrakrichhata/ mootrasanga/
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	Vishirnadharamootrapravritti				
	I	II	III	IV	V
All three present	0	0	0	0	0
Two symptoms Present	5	1	0	0	0
single symptom present	23	11	4	1	1
No any symptom present	2	18	26	29	29
Wilcoxon signed rank test	P<0.001				

The present study show statistically significant relief (p<0.001) observed before treatment and at last follow up by *Apamarg kshara* and *Yava kshara*.

Table.No.6: Size of *mootrashmari* in Kidney before and after treatment by *Apamarg kshara* And *Yava kshara*

Size of <i>mootrashmari</i> (mm)	Before treatment	After treatment
Mean	6.63	0.95
SD	3.57	3.08
t test	14.85	P<0.001



The present study was statistically highly significant in reducing Size of *Mootrashmari* in urinary system.

Table No. 7: Percentage relief observed before and after treatment in *Mootrashmari*

Relief criteria	Subjective parameter		Objective parameter	
	No. of patients	%	No. of patients	%
Excellent (>70%)	29	97%	27	90%
Moderate (30%-70%)	01	3%	02	6.67%
Poor (<30%)	00	00	01	3.33%

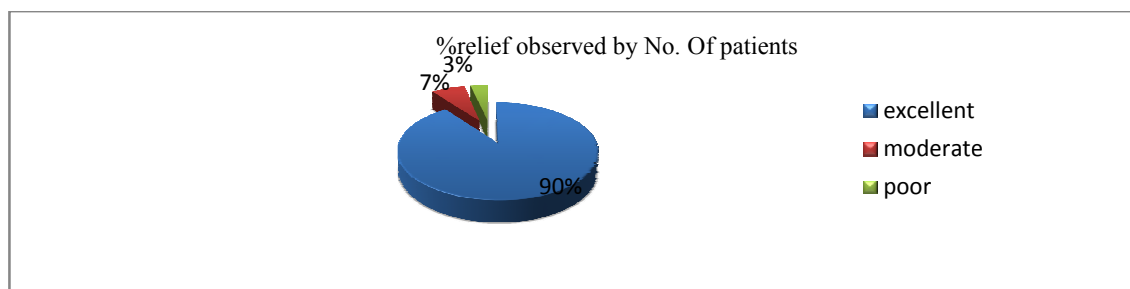


Table No. 8 Percentage relief observed before and after treatment in *ksharan* of

mootrashmari in Kidney by *Apamarg kshara* and *Yava kshara*

Symptoms	Before treatment(avg)	After treatment(avg)	Relief	% Relief
Vedana	2.10	0.03	2.07	98.43
Mootrakrichata	1.10	0.03	1.07	97.00
Size Of Mootrshhari(mm)	4.30	0.60	3.70	86.05

DISCUSSION

Mootrashmari is a gravious disease formed mainly due to *vata* and *Kaphado-shasaMorcchana*. As per ayurvedic classics, the person, who continued with *Mithyaaharavihar* without *shodhana*. His *Shleshma* get vitiated and mixes with *Bas-tigatamootra*. Here in *basti*, *dushti* attains shape of gravel i.e. *Asmari*. As per *Acharya Sushruta's* view concern 'A new pitcher filled with clear water shows setting down of muddy particles in due course of time'. In the same way the *Mootrashmari* is formed in *Mootravahasans-thana*.

Kshara is a remedy formed by process of *Bashmikanana*, Filtration, Evapouration termed as *sanskara's*. During the process of drying it undergo *kala*, *vata* and *Atapasanskara*. Which make the drug dry and same *gunas* of *vata*. During *Bhaskarana* process it under go *Agnisanskara* which make the drug *kaphaghna* and *vataghna*. After words it get settled with water for whole night here *jala* and *Pruthvimahabhootajsanskara* will act. Build capacity to break. Further the more it again undergoes *Agnisanskara*. During the whole process *rasa*, *virya*, *vipaka* of dravya all changes and a new formulation is formed. This new formulation i.e. *kshara* is of *Lavana rasa*, *Ushnavirya* and of *Madhurvipak*. By *lavan rasa* it disintegrates, by its *Ushnavirya* it dissolves and by *prabhava* it expel out the *ashmari*.

Another one theory stated *Asmootrashmari* is formed due to alteration in p^H . Concentrated urine is one of the causes for

mootrashmari. *Kshara* having p^H 9-11 and it is alkaline in nature. So it has property to neutralize acidic media. When it has been taken internally it changes pH of urine, and helps in preventing the hyper-concentration of urine. Which ultimately Disintegrate, Dissolve the present stone and also prevents stone formation further.

CONCLUSION

From above data it is seen that, there was overall 98.43% relief in symptoms subjectively 86.05 % relief objectively. Which statistically states that, '*Apamarg kshara* along with *Yavakshara* is effective in *ksharan* of *mootrashmari*. This ultimately concludes that, *Apamarg kshara* along with *Yava kshara* is an inexpensive, effective and appropriate medicine to treat *Mootrashmari*. Also the advantage is that it is effective in avoidance of the recurrence of disease.

This Study also show cone of light on following observations to revel conclusions.

- Male were more prone to *Mootrashmari* than females.
- The patients of *Mootrashmari* were found in all age groups with maximum number of them in young age.
- This study suggests that more the disease is chronic less are the chances to get cured completely.
- *Mootrashmari* commonly seen in society as a prominent problem in some geographic areas of high temperature. Environmental factors, water intake, diet, social class and occupation also play major role in formation of *Mootrashmari*.

- Less water leads to formation of *Mootrashmari*.
- Workers are more prone to *Mootrashmari*. Addiction of tea, alcohol, tobacco, and cigarette played a major role in formation of *Mootrashmari*.
- Persons with *Krurakoshtha* and *vishamagni*, *Vata – Pittajprakruti* were prone to ashmariformation.
- The probable *Nidanaare Asamshodhanasheela*, *Apathyasevana*, *Divya swapna*, *Snigdhaahara*, *Madhuraahara* and *ruksha -Teekshnaahara* etc.
- *Nabhivedana*, *Bastivedana*, *Mutradasarasanga* and *Sarudhiramutrataare* the main complaints along with burning micturition, dysuria and nausea in maximum patients.

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