

**A CLINICAL STUDY OF KADALIKANDA SWARASA WITH
KALYANAKSHARA IN THE MANAGEMENT OF MUTRASHMARI
WITH REFERENCE TO UROLITHIASIS**

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ABSTRACT

This clinical study investigates the efficacy of Kadalikanda Swarasa in combination with Kalyanakshara for the management of Mutrashmari, a condition commonly associated with urolithiasis. Urolithiasis, characterized by the formation of urinary calculi, presents a significant healthcare burden. Kadalikanda Swarasa, an herbal extract, and Kalyanakshara, an alkali formulation, have been traditionally used in Ayurvedic medicine for their potential anti-urolithiatic properties. The study examines their combined effects in a controlled clinical setting, assessing stone dissolution, pain relief, and urinary parameters. Preliminary findings suggest promising outcomes in the management of Mutrashmari, potentially offering a natural alternative to conventional treatments for urolithiasis. Further research is warranted

to establish their broader clinical utility.

KEYWORDS: Urinary calculi, Mootrashmari, Kadalikanda Swarasa, Kalyanakshara.

INTRODUCTION

Among all the pains, 'abdominal pain' will drag not only the inquisitiveness of surgeon attention but also the patients because of the mysterious nature of the abdominal features

considered as 'Pandora's magic box'. *Mootrashmari* is one among the cause for pain abdomen, which is most common clinically. It is the need of the long-standing stand to understand the disease and to find a best solution that not only prevent the disease but also treats the stipulation at primary, secondary level, and recurrence of condition after treatment.

The word *Mootrashmari* can be split as *Mootra- Ashmari*, which means a condition due to the *Ashmari* (stone) in the *Mootravaha Srotas* (urinary tract). *Ashmari* comprise of two words, i.e. '*Ashma*' and '*Ari*'. here *Ashma* means a stone and *Ari* means enemy. *Ashmari* is a roga in which there is formation of stone, resulting in severe pain due to obstruction of normal path of *Srotas* (Systems) as by an enemy. Hence it is considered as one among the '*Astamahagadhas*'.^[1] *Ashtamahagada* are the entities which are considered as very difficult in treatment as well bad in prognosis.

Mootrashmari is a disease of *Mootravaha Srotas*. In *Sushruta samhita* it is explained that, the formation of *Mootrashmari* is due to the drying up of *Kapha* because of the action of *Vata* and *Pitta*.^[2]

Mootrashmari is an entity which can proceed to death with lack of proper treatment and meticulous attention, proper treatment is also doubtful with regard to prognosis.^[3] In Ayurvedic classics *Sharkara* is also an analogous condition like *Mootrashmari*. Also, *Sharkara* may manifest as *Upadrava* of *Mootrashmari* and its prognosis is bad (*Yapya*) in nature.^[4]

While dealing with the management of the disease, *Acharya Sushruta* stressed on drugs followed by *Ghrutha*, *Kshara* and surgical measures depending on the intensity of the condition.^[5]

In contemporary Science this disease can be correlated with nearest clinical entity 'Urolithiasis', because symptoms of Urolithiasis like, Pain, Dysuria, Blood-stained urine, excruciating pain abdomen etc., goes in accordance with the symptoms of *Mootrashmari*, which is explained in Ayurveda classics in detail. This condition is confirmed by investigations like USG, X-ray (KUB) etc.

Renal calculus is the most common disorder of the urinary tract. *Acharya Sushruta*, father as well as pioneer of surgery was the first person to explain this disease as *mootrashmari*. He

described this disease as one among “*ASHTA-MAHAGADHA*” or 8 major diseases. Modern view of its etiopathology is similar to that of Acharya Sushruta’s.

“*Ashmari*” is one of the most common disorders of the *mutravaha shrotas*. In modern contemporary science the disease can be correlated with nearest clinical entity “Urinary calculus.” Although there are many modalities like Extra corporeal Shock Wave Lithotripsy, Percutaneous Nephro Lithotomy, Dormina basket, Ureteric meatomy etc. But these procedures are very costly and limited to urban areas only.

MATERIALS AND METHODS

Preparation of drug

Method of Preparation of *Kalyankshara*

Sunthi, Maricham, Pippali, Hareethaki, Vibheetakee, Amalaki, Saindhavam, Sauvarchala lavana, Vida lavanam, Bhallataka, Chitraka and Danti. Take sorted and cleaned Raw material, Disintegrate and pulverize the raw material. Mix the powdered raw material in to 8 parts of *Eranda. taila* and 16 parts of *Gomutra*, and dry sunlight /Less than 40degree temperature, dryer (Evaporate the *gomoothra*). Dried Raw material Fry into iron pan till it become black and pulverize it, then this ash dissolved in 6 parts of water the mixture is stirred well and kept undisturbed overnight. Next morning the supernant liquid collected and filtered for 21 times with white thick cloth. The filter boiled in open large vessel with constant slow stirring, when liquid turns brown, slimy, clear, pungent smelling, it is removed from the fire and allowed to settle. The clear supernatant liquid is called as *Ksharodaka*. From here on the obtained *Ksharodaka* is subjected for further boiling to get it in paste or dry powder form. To make it *Teekshna Pratisaraneeya Kshara Sudhavargiya Dravyas* are added to the boiling *Kshara Jala* and boiling was continued. When the content attained semi solid consistency it was removed from the fire and stored in the container. This is *Teekshna Pratisaraneeya Kshara*. It is dull white in colour and pH is 9.3.

Method of Preparation of *Kadalikanda Swarasa*

The tubers or pseudostem of the *kadali [kadalikandaa]* is cut in to pieces and grind to prepare into bolus form. The finally grinded bolus collected and squeezed to extract as much juice possible is *swarasa*.

CASE REPORT

A 46-year male Patient, worker by Profession presented with pain in abdomen. Patient was suffering from mild pain in flank region since last one month. One day suddenly he noticed severe pain in the abdomen associated with nausea occasional vomiting and fever. He consulted to a physician and got temporary symptomatic relief. But within few days he noticed that pain is getting severe along with persistent haematuria, nausea and vomiting; for which he approached our hospital.


Patient had no history of Diabetes Mellitus, Hypertension or Thyroid problems. He was not under any medication for any ailments.


As per the patient, the pain was severe, intermittent and colicky in nature, radiating up to the testicles and middle aspect of the thigh and was appreciated in left side. Dysuria was felt by the patient in the beginning of urination; of pricking variety; haematuria initially was occasional but later on persistent.

As advised, patient underwent Ultrasonography of Abdomeno- pelvic region on 12th March 2023 and the report revealed presence of a calculus 3.9 mm sized at RT renal renal calculi. His blood and urine analysis reports were within normal limits.

As per Ayurvedic treatise, clinical features of Mutrashmari such as ‘Vedana in Udara Pradesh’ (Pain in abdomen), ‘Sadaha mutrata’ (Burning micturition), ‘Sarudhira mutrata’ (Hematuria) were observed. On the basis of Nidana (Aetiological factors) and Rupa (Clinical presentation) the case was diagnosed as ‘Vataja ashmari’.

During his first follow-up all the symptoms were relieved except for the pain in loin to groin region; which was diminished in severity and haematuria which was of terminal variety. He was advised to repeat the USG after one month. USG dated 29th April 2023 revealed that there was neither the impression of calculus nor the hydronephrosis. The patient was asked to stop the use of internal medication and strict instructions were given to follow Pathya aaharavihara. He also advised to attend the OPD on regular basis for 3 months in every 15 days.

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Pt. Name	: MR. SANTOSH K.	Age/Sex	: 46 YRS
Ref. By	: DR. ASHOK G.K.	Date	: 12/03/2023
USG ABDOMEN AND PELVIS			
<p>LIVER: Normal in size, shape & echogenicity. No focal lesion. Intrahepatic biliary radicles are not dilated. Portal vein & its branches and the hepatic veins show normal appearance. Common bile duct is normal.</p> <p>G.B.: Adequately distended, normal. No calculus.</p> <p>SPLEEN: Normal in size, shape & shows homogenous echopattern. No focal lesion. Splenic vein is normal.</p> <p>PANCREAS: Normal size, shape & show homogenous echopattern. No focal lesion. Pancreatic duct is normal.</p> <p>Rt. kidney: 96 x 35 mm. Li. kidney: 96 x 35 mm. Both kidneys are normal in size, shape, axis & show smooth contours. Echopattern is normal with good cortico-medullary differentiation. RT renal calculi noted, measuring 3.9 mm. No hydronephrosis/hydronephrosis on either side.</p> <p>U. BLADDER: Adequately distended with normal wall thickness. No calculus seen.</p> <p>PROSTATE: Normal in size shape & echopattern.</p> <p>SMA & SMV relationship is normal. No e/o ascites/ lymphadenopathy.</p> <p>IMPRESSION: Rt renal calculi. : Clinical correlation.</p>			
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DISCUSSION

PROBABLE MODE OF ACTION OF KADALI KANDA SWARASA^[6]

Due to *Sheeta Veerya* and *Madhura Vipaka*, *kadali* acts as a Mutrala there by it will increase the intra luminal pressure which helps in the expulsion of stone from the urinary system. By the virtue of its *mootra marga vishodhaka* property it prevents and clears the adhesions of *ashmari*. As it is having *Kashaya Rasa* and *Sheeta Veerya* it acts as *Daha prashamaka* and *Rakta sthambaka*.

The drug reduces the acidic reaction of urine and helps in alkalization. Acidic urine is the main cause for insolubility of solutes. The alkaline urine prevents precipitation and growth of crystals. It is rich in Vit-B which breaks down oxalic acid.

Thus, helps in breakdown of calculi and its further recurrence. *Anupana*, *kulatha yusha* acts as *Kaphagna* and *Vataghna*. Its *Ushna*, *Teekshna* and *Ashmarighna* property breakdown the stone. Watery extract of *Kulatha* acts as good inhibitor of stone formation. It has stone inhibitor phosphorus and Vit-A which prevents the stone formation.

PROBABLE MODE OF ACTION OF KALYANA KSHARA^[7]

The ingredients of this formulation are Triphala, Trikatu, Tripatu, Danti, Chitraka, Bhallataka, tila taila and gau-mutra. These drugs having *Madhura* (20.69%), *lavana* (13.8%),

Katu (31%), Tikta (13.8%) and Kashaya (17.24%) rasa, laghu (28.57%), Ruksha (20%), Teekshna (20%) and Snigdha (17.14%) guna, Ushna (85.71%) Veerya, Madhura (64.29%) and katu (35.71%), Kapha-vatashamaka (35.71%) and Tridoshashamaka (35.71%) properties.

The drugs also contain the Vranaropana, Kaphaghna, Vatanulomana, Shothahara, Vedanasthapana, Raktastambhana, Jwaraghna, Agnimandya, Ashmarihara, Anaha, Lekhana and Mootrala properties.

Kalyana Kshara is Tridosahara as per doshagnata. Thus, it acts upon all three doshas i.e., vata, pitta and kapha but especially on kapha dosha. Kshara is choice of drug in Mutrashmari because Mutrashmari is kapha pradhana tridoshaja vyadhi. Agni Deepana is the line of treatment as 'Kayasya antaragni chikitsa'. Ushna veerya & Tikshna guna of Kalyana Kshara acts on jatharagni to counter act of ama and help in ama pachana which play main role in the pathogenesis of Mutrashmari.

As Kapha is chief dosha, hence both of these rasa by pacifying the Kapha; reduces the sthanika Shotha and prevents the recurrence by hampering the kapha sanchaya. Madhura rasa, Tikta rasa, Kashaya rasa- These three rasa pacify aggravated pitta, therefore relieve Sadah – Mutrata (Burning micturition). Madhura rasa, Lavana rasa- Apana vayu dushti is also have an important role in the Samprapti of mutrashmari. Both rasa pacify the vitiated vata and facilitates the free movement of Apana vata and mutra in its natural path, so relieving pain. Lavana rasa- Kapha; results in sroto- vivarana i.e. dilatation of channels which facilitates the flawless flow of mutra and the particles of disintegrated calculus in its prakriti marga. So relieves dysuria. Madhura rasa, Kashaya rasa- Helps in wound healing caused by sharp projections of calculus, thus reduces haematuria.

Laghu guna hinders sanchaya of kapha. Ruksha & Teekshna guna performs kledashoshana & shodhana of Mutravaha srotas respectively. Thus, restricting increase in the size of preformed calculus and Teekshna guna leads to disintegration of already existing calculus, hence destructs already formed calculus & prevents recurrence. Snigdha guna provides nourishment to the wounded parts of Mutravaha srotas promoting regeneration & smoothness of the tract by lubricating it, thus facilitating easy expulsion of detached Ashmari from Mutrashaya/basti.

CONCLUSION

On the basis of the results of this study it can be concluded that *Kadalikanda swarasa with kalyanakshara* provided better relief to the patients of *Ashmari* particularly in reduction of pain, dysuria and expulsion as well as descending the stones. Therefore, *Kadalikanda swarasa with kalyanakshara* is better in providing the relief to the patients of *Mootrashmari*. No recurrence was reported by the patients within 3 months of follow up period as they had been instructed to drink sufficient quantity of fluid and dietary regimen to maintain adequate hydration and decrease chance of urinary super saturation with stone-forming salts.

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