

STUDY OF EFFICACY OF PAANIYA KADALI KSHARA IN THE MANAGEMENT OF MUTRASHMARI WITH SPECIAL REFERENCE TO UROLITHIASIS - A CASE STUDY

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ABSTRACT

Ayurveda is a simple practice science of life. Its principles are universally applicable to each individual for daily existence. *Sushruta* the pioneer of *shalyatantra* has enumerated the urology in his legendary textbook of surgery. *Sushrut samhita* by describing anatomy, physiology and pathology of many diseases like *ashmari*, *mutrakruchhra* and *mutraghata*. Ayurveda considered *Ashmari* mainly as *mutrashmari* (urolithiasis), as *sushruta* describes classification, symptomatology, etiology, pathology of *ashmari*^{[1][7][8][9]} "Ashmanam rati dadati iti Ashmari" means the formation and presentation of substance like stone. *Mutrashmari* is the

disease of *mutravahastrotasa* and considered as one of the *Ashthamahagada*.^[2] *Sushrut* has advised several *Ghruta*, *Kshara*, *kashaya*, and *kshira* preparation.^[3] In *Rasatarangini adhyay* 14 gives description of *Kadali kshar* which is effective by its *ushna*, *tikshna*, *pachan*, *darun gunas*.^[4] Acharya describes various treatment modalities including surgical intervention for *mutrashmari*. Acharya *sushruta* describe *kshar is pradhantam*^[5] and *shrestha* in *Shastra* and *Anushstra* due to *chedan*, *Bhedan*, *Lekhan* and *mutra*, *tridoshaghna* properties. Now a day's various modern treatment modalities and operative procedures are available but this are expensive for common peoples. Like PCNL (Percutaneousnephro lithotomy), ESWL (extra corporal shock wave lithotripsy) cystolithotomy, ureterolithotomy are available at higher centers which are out of reach for common peoples. In modern science surgical management has many post operative complications. All the modern procedures available they remove the

formed stone surgically but do not eradicate the *dosha dushya samurcchana* i.e the *samprapti*. By conservative and surgical treatment the urinary calculus is treated, but unfortunately none of these methods are unable to prevent recurrence of urinary calculus. In urolithiasis recurrence is burning problem and challenge for the treating doctors by looking into the above problems for the people of urban and rural era it has been decided to work on *kadlikshar* which helpful in removing of calculus is advocated by *rasatarangini*.^[4]

KEYWORDS: *Mutrashmari, anandbhairavivati, Ashmari, Hanan, Upsnehanniyaya, Samprapti.*

INTRODUCTION

Ayurveda is ancient science which deals with many dreaded disease as *mutrakriccha, mutraghata, mutrashmari* Of which '*mutrashmari* is one of the most common and most troublesome diseases in our country and the pain due to that is known as worse than that of labour pain. The disease was described one among the *ashtamahagadas*.^[2] The aim of ayurveda is "*To maintain the health and cure the disease.*" Thousands year ago the Acharyas described the disease *Mutrashmari* and its treatment in detail. *Acharya Sushruta* described its classification, etiology, pathology, Symptomatology, Complications and its management in detail.^[1]

Formation of urinary stone is complex physio-chemical process which involves in sequence of events in formation of urinary stone. The high concentration of calcium crystals and formation of calcium stones. Struvite stones forms due to concentration of phosphate and ammonium in urine are high. The uric acid stones forms due to low urinary volume which increases concentration in urine. Cystine or xanthine stones forms due to deficiency of enzyme xanthine oxidase which catalyzes the oxidation of hypoxanthine to xanthine and xanthine to uric acid.^[6]

Various risk factors have been identified for stone formations and these includes, Hot climate, Vit A deficiency, Excessive administration of Vit D, Metabolic disorders, Hyperthyroidism, Gout, Idiopathic hypercalciurea, Fluoride rich water, recurrent urinary tract infections.^[6]

Now-a-days, various surgical methods like PCNL (percutaneous nephrolithotomy) ESWL (extracorporeal shock wave lithotripsy) are available but these facilities are available but

facilities are available only at higher centers and too expensive for common peoples. The surgical treatment is time consuming and treat the disease, but even after surgical intervention pathogenesis behind stone formation but recurrence cannot be avoided.

Acharyas described various treatment modalities including surgical intervention for *mutrashmari*. *Acharya sushruta* said that before going for surgical procedure one should try with *Ghrut*, *Kshar*, *Kshay*^[3], and *Uttarbasti* *Acharya sushruta* said *kshar* is *pradhantam*^[5] and *shreshtha* in shastra and *anushastra* due to its *chedan*, *bhedan*, *Lekhan* and *mutral*, *tridoshaghna* properties. *Acharya Sushruta*, *Vagbhata* and *Rasatarangini* described the drug *kadlikshar* in the management of *mutrashmari*.

Due to *Taikshna*, *Ushana*, *Pachan*, *Daran gunas* *kadlikshar* has Urolithiatic property due to *mutral* and *shodhan gunas* it has diuretic property and due to *ropan gunas* it has healing property. *Kadli* is easily available and preparation of *kadli kshar* is cost effective.

AIM

“To study the effect of *KadliKshar* in the management of *Mutrashmari* (Urolithiasis)”

OBJECTIVES

- ☐ To find out whether this drug reduces the size of *calculus* and *Promotes* its expulsion.
- ☐ To find efficacy of *kadlikshar* in the management of *mutraashmari* on the symptoms of *mutrashmari*.

Methods

A Single clinical case of female patient of Urinary Calculus of age 42 years. Informed written consent of patient taken. *Kadli kshar* with *madhu* is given at OPD level in the dose of 500mg BD before meal for 28 days then follow up taken on 0th, 7th, 14th and 28th day.

CASE RECORD

A male patient of age 42 years,

OPD Registration No. – 6356

A patient came in O.P.D No.6 of *Shalyatantra* department in Govt. *Ayurved* Hospital, Nanded. He was suffering from following complaints:

- Mild Pain in abdomen.
- Burning micturation

Above patient was healthy before 4 month, after that he was suffering by pain in abdomen, then he took some conservative treatment for that. Again after 2 month he was suffering by pain in abdomen, burning micturation. After that he came to Government *Ayurved* hospital and did an ultra-sonography and diagnosed as Urinary Calculus.

PAST HISTORY

Medicinal History -No History of Diabetes mellitus / Hypertension / Tuberculosis or any major medical illness.

Surgical History – No any surgical history noted.

Other Major History – No any allergic history noted / no history of typhoid and malaria noted.

Drug History – No any Specific drug history noted

Family history- No any relevant family history noted

Personal history

Occupation - Farmer

Addiction - None

Diet - Veg & Non-Veg

Appetite - Regular

Urine - Regular

Stool - Regular

Systemic examination

R.S. – Air entry bilaterally equal and clear, no abnormality found.

C.V.S. – S1 S2 normal, No Cardiac Murmurs heard

C.N.S. – Conscious and oriented to time, place, person.

Per Abdomen – Soft, mild tender at bilateral iliac region,

Liver and spleen - not palpable.

Local Examination

Patient's examination done in Supine position along with genital examination.

External Urethral Meatus – Normal

Penile shaft – Normal

Per Rectal Digital Examination – Non-tender prostate, no enlargement of prostate

Per Abdomen Examination – Soft, Mild tender at bilateral iliac region.

	Right Side	Left Side
Renal Angel Test -	Painful	Painful
Renal Punching Test -	Painful	Painful

Investigations

Hb - 12.4 gm%	BSL (R) – 89 mg/dl
B.T – 2.32 min	HIV – Non-Reactive
C.T. – 3.17min	HbSAg – Non-Reactive
KFT – Sr. Creatinine – 1.05 mg%	Blood Urea – 27.9 mg%

Urine Routine & Microscopic

Physical Examination

Colour - Pale Yellow Quantity – 10ml Appearance – Clear

Chemical Examination –Proteins – Present, Sugar – Absent

Microscopic Examination

RBC – Absent, PUS Cells – Occasional, Epithelial cells – occasional, Crystals - Absent

NidanPanchak

Hetu

- *Mutra Vega dharan*
- *Trushna Vega dharan*
- *Virudhaaharsevan*
- *Rukshaaaharsevan*

Purvarupa – Hrullas

Rupa

- Pain in Abdomen
- Burning Micturation

Samprapti^[10]

तत्र असंशोधनशीलस्यापथ्यकराणः प्रकुपितःश्लेष्मा मूत्रसम्प्रुक्तो अनुप्रविश्य बस्तिमश्मरी जनयन्ती॥ (सु.नि.4)

Due to unhealthy diet and lifestyle *Kaphadosha* gets vitiated. This vitiated *kapha* disturb *pitta* and *vata* also combine with *mutra* goes to the *basti* and form *Mutrashmari*.

Upashaya

- Drinking plenty of water
- Follow *Pathyapathya*

Chikitsa

- *Kadli Kshar* with *madhu*

METHODOLOGY

Drug – Self prepared *Kadli Kshar*

Dose – 500 mg twice a day with *madhu Anupana*

Route – Oral

Time – before meal

Duration – 28 days

Follow Up – On 0th, 7th, 14th & 28th Day

Here We give *Kadli Kshar* 500 mg BD with *madhu* for 28 days on O.P.D base and the observations are recorded in tabular form.

Drug Review^{[11][12]}

Kadli plant

Latin Name – *Musa sapientum* Linn.

Musa paradisiaca Linn

Family - Musaceae

Kula – Haridrakula

Vernacular Names

Sanskrit - *Rambha, Mocha*

Marathi - Kela, Keli

Hindi - Kela, Kadli, Kera

Guna

Rasa - *Madhur, kashay*

Guna – *Guru, Snigdha*

Virya - *Shita*

Vipak- Madhur

Phala- Kashay, Madhur, Guru, Shit, Visthambhi, Kaphavardhak, Vatghana, Vrushya, Balya.

Rogaghanata- Yonidosha, Ashmari, Raktapittanashak, Mutrakrucchahar

Kshar rogaghanata - Ashmarighna, Heart burn, Acidity and colicky pain

Matra

Swaras- 10-20 ml

Kshar - 500 mg to 1 gm

Assessment criteria

Pain and burning Micturition will be calculated by Visual analogue scale and Haematuria calculated by its amount.

☐ **Cured** – Absent of calculus.

☐ **Improved** – Decresed size with or without change in site of calculus

Change in site of calculus with or without change in size calculus

☐ **Not cured** – No change in size and site of calculus.

OBSERVATION AND RESULT

Treatment will be given for 28 days and follow up of patients will be taken on 0th, 7th, 14th & 28th day.

Sr. No.	Days of follow-ups	Pain	Straining Micturation	Hematuria	Other Symptoms Burning Micturation
1.	0 th	++	-	-	+
2.	7 th	+	-	-	-
3.	14 th	-	-	-	-
4	28 th	-	-	-	-

Sr. No.	Days of follow-ups	Size of Calculus in USG	Site of calculus in USG
1.	0 th	2 calculi one of size 5.4 mm 3 calculi one of size 5.1 mm	In Right Kidney Mid and lower pole calyx. In Left Kidney Upper, Mid, Lower pole calyx.
2.	28 th	No Calculus in Usg	

CONCLUSION

From Above study it is concluded that *Kadali Kshara* is effective in expulsion of Renal stones with complete relief from associated signs and symptoms.

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