



## AYURVEDIC MANAGEMENT OF MUTRASHMARI W.S.R. IN UROLITHIASIS- A CASE REPORT

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**ABSTRACT** *Mutrashmari* is the third commonest disorder of *Mutravaha srotas* (urinary tract). In modern medical science it is correlated with urolithiasis. It is a highly prevalent condition with a high recurrence rate that has a large impact on the quality of life of those affected. Urolithiasis is an important encountered kidney disorder in clinical practice. A 21 year old patient approached the OPD with complaints of pain abdomen associated with nausea, vomiting and burning micturition. Ultrasound scan of abdomen revealed that in left kidney lower ureter there is evidence of an elongated calculus of size approx 10.2mm with proximal hydroureteronephrosis. It was diagnosed as *ashmari* based on signs and symptoms and investigational reports. Based on the *ayurveda* line of management, patient was administrated A combination in powder form of *Pashanbhedvrajra Ras*, *Gokshur churna*, *varun twak churna*, *Hazrulyahud bhasma*, and *Shwet parpati* are administrated along with *tranpanchmoola kwath* (40 ml) twice a day before meal. Capsule Drain out (2 capsules) and Tablet Cystone (2 tablets) along with Syrup Neeri (4 TSF) twice a day along with water are administrated after meal. In the present work we have tried to study the combined action of *ayurveda* drugs, diet and lifestyle changes with respect to disintegration / expulsion of the calculi.

### KEYWORDS :

#### INTRODUCTION:-

Nephrolithiasis or urolithiasis is the third commonest disorder of the urinary tract after urinary tract infection and prostatic hyperplasia. Life time risk of stone formation varies from 10% to 25%, worldwide In India, maximum prevalence occurs in Jammu and Kashmir, Punjab, Haryana, Delhi, Rajasthan, Madhya Pradesh, Gujarat (Stone belt of India); Peak age is 20 years to 30 years seen during summer in overweight males with high body mass index (BMI). Recurrence occurs in 15% at 1 year, 30 to 40% at 5 years and 50% at 10 years<sup>1</sup>.

In *Ayurveda* Nephrolithiasis or urolithiasis can co-relate with *Vrukka Ashmari* or *mutrashmari* which considered as one among the *astamahagada*<sup>2</sup> (difficult to cure disease). *Acharya sushruta* explains the process of stone formation in detail with symptoms and management in the *ayurveda* classical text *Sushrut samhita*. As per *Acharya Sushruta* calculi are of four types, centered on *Kapha*, such as-by *Kapha*, *Vata*, *Pitta* and *Shukrajashmari*<sup>3</sup>.

*Shleshmashari* is produced by excessive intake of *kapha*-increasing food as sediment below and growing around reaches the opening of bladder and thus obstructs the passage; by obstruction of urine there occur grinding, tearing and pricking type of pain and bladder becomes heavy and cold<sup>4</sup>.

*Kapha* combined with *pitta* attends hardness, grows around and heaving reached the opening of the bladder obstructs the passage; obstruction of urine gives rise to heating, sucking, burning pain in bladder along with *ushnavata*<sup>5</sup>.

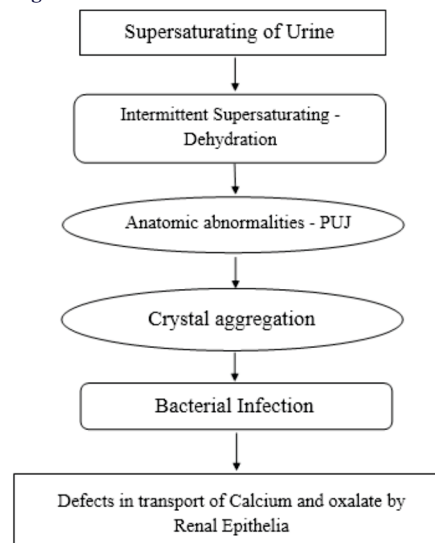
*Kapha* associated with *Vata* having hardened and grown around reaches the opening of bladder and obstructs the urethral passage thus due to obstruction in urine excruciating pain occurs during which the patient, severely, afflicted, bites his teeth, presses umbilicus, frequently rubs penis, touches anus, passes flatus, feels burning sensation (in penis) and while passing urine with difficulty wind, urine and faeces are excreted<sup>6</sup>.

Due to interrupted or excessive sexual intercourse semen is dislodged but not discharged and takes a wrong course, *vayu* collects and solidifies it in the space between penis and scrotum and then dries it up. This creates obstruction in the urinary passage and causes dysuria, pain in bladder and swelling in testicle and more pressing it gets dissolved in that very place. This should be known as seminal calculus<sup>7</sup>.

The formation of urinary stone is a complex physio-chemical process which involves sequence of events as urinary saturation-

supersaturation – nucleation - crystal growth - crystal retention - stone formation<sup>8</sup>. Many treatment modalities have been adopted in modern science but it is quite expensive and also the pathogenesis behind recurrence of stone persists. So, it is necessary to find out an economical effective, easily available and acceptable medicine to treat *Mutrashmari*.

#### Etio-Pathogenesis of Urolithiasis -



Hence in this present clinical study, with the help of *deepan*, *pachana*, *mutral* and *Ashmari bhedana dravyas* are selected for the management of *Mutrashmari*.

#### CASE REPORT-

A Hindu, unmarried 21 year old male patient visited (May 2, 2018) the outdoor department of Sharir Kriya of NIA, Jaipur with OPD no 6602052018 for the chief complains of *udar shoola* (colic pain in abdomen), *Mutra kruchcha* (difficulty in micturition), *Hrullasa* (nausea) and *Chardi* (vomiting) for 5 to 7 days. And other associated complains were *Kshudha nasha* (Loss of appetite), *Klama* and *jwar* (Fever) for last 7 to 8 days.

Personal history revealed that the patient is omnivorous and used to take extra oily and fatty diet, with regular habit of intake of Homemade

food, Excessive exercise, and patient have no addiction. The patient has constipation and urge of defecation in 1 time/ 2day.

Past history – patient is suffering from Urinary tract infection before 2 months ago.

Family history – There is no any significant family history.

On the examination of abdomen the patients showed there was no organomegaly but tenderness elicited in both side of the lumber region and left side of renal angle and vitals being pulse rate 78/min, respiratory rate of 20/min, blood pressure of 120/70 mm of Hg and body weight is 50 kg. As advised, patient underwent Ultrasonography of the Abdominal-pelvic region on 24<sup>th</sup> April 2018, and the report revealed that in left kidney lower ureter there is evidence of an elongated calculus of size approx 10.2mm with proximal hydroureteronephrosis. (Table 1) As per classics, majority of clinical features of *mutrashmari* such as '*Vedana in udar pradasha*', pain in abdomen, *sadaha mutrata* (burning micturation) and *sarakta mutrata* (blood mixed urination) were observed. On the basis of *Nidana* (causative factors) and *Rupa* (Clinical features) this clinical condition is diagnosed as *ashmari*. The Following oral medicines were administrated for 1 month.

- A combination in powder form of *Pashanbhedvrajra Ras* (1gm), *Gokshur churna* (1gm), *varun twak churna* (1gm), *Hazrulyahud bhasma* (500mg), and *Shwet parpati* (250mg) are administrated along with *tranpanchmoola kwath* (40 ml) twice a day before meal.
- Cap. Drain out (2 capsules) and Tablet Cystone (2 tablets) along with Syrup Neeri (4 TSF) twice a day along with water are administrated after meal.

As *Sushruta* explains, the uses of *paniya kshar* along with *herbo* mineral compound which has *mutral* and *ashmari-bhedana* properties is unique drug described in *ayurveda* classical text, is administrated for 1 month. Patient was asked to follow prescribed wholesome diet and activity chart (Table 4). During the first follow up after 15 days it was noticed that all the clinical features were absent expect for pain in abdomen which was less in intensity. He advised to take medicine for one more week and continue *pathyapathya* chart. He advised to review after 15 days with scan report. Patient visited back on 24 may 2018 for the follow up stating that he got completely relieved from pain in abdomen and he has experienced neither dysuria nor Hematuria till date.

**Subjective Parameter –**

**Table – 1 Assessment of Classical Sign & Symptoms –**

S. No	CHARACTERISTICS FEATURES	BEFORE TREATMENT	AFTER TREATMENT
1	<i>Vedana in udar pradasha</i>	3	0
2	<i>Sadaha mutrata</i>	3	0
3	<i>Sarakta mutrata</i>	3	0
4	<i>Mutra-avrodha</i>	3	0
5	<i>Basti pradasha gauravata</i>	3	1
6	<i>Chhardi</i>	2	0

**Table-2 Grading suggests –**

S.NO	Characteristics features	Grade
1	Complete relief	0
2	Moderate relief	1
3	Mild relief	2
4	No change	3

**Objective Parameter -**

**TABLE – 3 USG REPORTS**

Scanning Date	Clinical Features	Impression
24/4/2018	Pain in abdomen (Moderate)	Approx 10.2mm at left lower ureter with proximal hydroureteronephrosis
23/05/2018	No any Complain	No evidence of calculus

**TABLE – 4 Pathyapathya chart**

Aharaj Vargas (Food habits)	Pathyaj (Do's)	Apathyaj (Don't)
Vegetables	Carrots, karela (Bitter guard), Potatoes, Radish and Pumpkin	Brinjal, Beans, Ladyfinger, Capsicum, Tomato, Cucumber, Spinach

Cereals	Barley, Moong dal, Horse gram	Fine wheat flour (Maida) , Oat meal, Bran
Fruits	Bananas, Lemon, Apricots, Plums, Apple, Almonds	Black grapes, Amlaki (Gooseberry), Kiwi, Strawberries, Chickoo
Miscellaneous	Coconut water, Lemonade, Aloe vera juice, pineapple juice, Butter milk	Coffee, Cashew nuts, Chocolates
Healthy food for Kidney	Papaya, Garlic, Yogurt	Rajmah, Mushroom, Cauliflower, Peas
Vihara (Activities)	Regular Exercise	Day sleep, Controlling Natural urges, Sweating

**DISCUSSION –**

- 1) There are four types of calculi which is centered on *kapha dosha* such as *Kaphajashmari*, *Pittajashmari*, *Vatajashmari* and *Shukrajashmari*.
- 2) Patient being diagnosed as *mutra-ashmari*, drugs acting upon main component of pathology like – *Aharj mala (Mutra)*, *Kapha* and *Pitta dosha*; *Jatharagni* as well as having *Deepan- pachan*<sup>9</sup>, *Chedan-Bhedan*<sup>10</sup> and *Lekhan*<sup>11</sup> properties were selected to assess its efficacy on *mutra- ashmari*.
- 3) The drug which have *Deepan-Pachan* properties like *Musta*, *Kshar*, *Pippli*, *Varun*. *Chedan – Bhedan* properties like – *Varun*, *Sweta parpati*, *Mulikshar*, *Punarnava*, *Pashanbhed*, *Apamarga*, *Hajrul yahood bhasma*. *Mutral* properties like – *Gokshur*, *Punarnava*, *Kusha*, *Kasha*, *Shara*, *Darbha*, *Ikshu*. *Sothahar* properties like – *Punarnava*, *Nagarmotha*, *Gokshur*, *Kulatha*.
- 4) Probable pharmacological activities and probable mode of action of the drug is mentioned by below -

**TABLE – 5 REPORTED PHARMACOLOGICAL ACTIVITIES OF DRUGS**

S.No	Drugs	Reported Activity
1	<i>Pashanbhedvrajra Ras</i> <sup>12</sup>	Lithotropic, diuretic
2	<i>Gokshur churna</i> <sup>13</sup>	Diuretic,antioxidedent,Antiinflammatory,Antimicrobial
3	<i>varun twak churna</i> <sup>14</sup>	Diuretic, Hepatoprotective, Anti ulcer activity, sedative
4	<i>Hazrulyahud bhasma</i> <sup>15</sup>	Diuretic, Lithotropic
5	<i>Shwet parpati</i> <sup>16</sup>	Diuretic, Calcus destructor, it subside the painful micturation.
6	<i>tranpanchmoola kwath</i> <sup>17</sup>	Diuretic,antioxidedent, Antiinflammatory, antipyretic
7	Cap. Drain out	Diuretic, Calcus destructor, Antioxidant
8	Tablet Cystone	Lithotropic,diuretic,anti lithatic, Antiinflammatory,anti microbial property,demulcent
9	Syrup Neeri	Urolithiasis, alkalizer, anti microbial

**TABLE - 6 PROBABLE MODE OF ACTION OR SAMPRAPTI VIGHATAN18-**

SAMPRAPTI GHATAK	MUTRASHMARI	EFFECT OFHERBO-MINERAL COMBINATION
<i>Dosha</i>	<i>Tridoshaj</i>	<i>Tridoshagna</i>
<i>Dushya</i>	<i>Mutra</i>	<i>Mutral</i>
<i>Agni</i>	<i>Jatharagni mandhya</i>	<i>Deepan, Pachan</i>
<i>Ama</i>	<i>Jatharagni mandhya janya</i>	<i>Nirama</i>
<i>Srotas</i>	<i>Mutravaha srotas</i>	<i>Mutral</i>
<i>Udbhava sthan</i>	<i>Amashaya and Pakvashaya</i>	<i>Shoolagna</i>
<i>Sanchay sthan</i>	<i>Siras, Amashaya and Pakvashaya gat mutravaha srotas</i>	<i>Mutral</i>
<i>Adhasthan</i>	<i>mutravaha srotas and Basti</i>	<i>Mutral</i>
<i>Vyakta sthan</i>	<i>mutravaha srotas and Basti</i>	<i>Mutral</i>
<i>Dusti prakara</i>	<i>Sanga</i>	<i>Chedana, Bhedan, Lekhan</i>
<i>Rogamarga</i>	<i>Madhyam</i>	<i>Ashmaribhedan</i>

<i>Vyadhi swabhava</i>	<i>Mutra apravritijanya vicar</i>	<i>Mutra pravritikar</i>
<i>Sadhya sadhyata</i>	<i>Kruchhasadhya, Shastrasadhya</i>	<i>Sadhya</i>

### CONCLUSION –

*Acharya sushrut* says *Nidana parivarjana* (Avoidance of the causative factors) is a main treatment protocol for any diseases. *Acharya lolimbraj* also advocates that if one obeys the *pathyas*, no disease will occur and if one should not obey it and continuous *apathy*, no treatment is needed, as it is not going to be cured<sup>19</sup>. As this is single case study the same intervention can be used on large sample size to see the efficacy of *ayurveda herbo-mineral* formulation and role of *pathya* in the management of *Mutrashmari* (Urolithiasis).

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### CONFLICTS OF INTEREST:-

There are no conflicts of interest.

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