

## A CASE STUDY TO EVALUATE THE EFFECT OF PUNARNAVA VARUN KWATHA IN THE MANAGEMENT OF MUTRASHMARI (UROLITHIASIS)

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Article Received on  
06 Sept. 2020,

Revised on 26 Sept. 2020,  
Accepted on 16 October 2020

DOI: 10.20959/wjpr202013-19079

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### ABSTRACT

Mankind has been suffering from urinary stones since from centuries. Urolithiasis is most common disorder of urinary tract and very common cause for pain in abdomen. The urinary stones have peculiar tendency of recurrence approximately 50% within 5yrs.<sup>[1]</sup> *Aacharya Sushruta* has included *Mutrashamri* in “*Ashtamahagadas*”.<sup>[2]</sup> The urinary stones have a peculiar tendency of recurrence, despite of their surgical removal. *Aacharya Sushruta* has advised both medicinal and surgical treatment for *Mutrashamri*.<sup>[3]</sup> Looking into the gravity of problem this study is attempted to evaluate a role of *Punarnava varun kwath*<sup>[4]</sup> in *Mutrashmari*. The need of the study is, as urolithiasis is multifactorial recurrent disease and now-a-days it is a common disease in society. It's prevalence rate is as high as 4% -20%.<sup>[5]</sup> *Aacharya Sushruta* included *Mutrashmari* in “*Mahagada*” showing its severity. It is important to identify more efficacious drug with respect to cost, time, availability, palatability for the patient.

**KEYWORDS:** Urolithiasis, *Punarnava*, *Varun*, *Mutrashmari*, *Ayurveda*.

### INTRODUCTION

Urolithiasis is a condition which involves the process of formation and retention of stones in kidney, bladder and/or urethra that result in renal colic, urine retention and pain in abdomen and flank.<sup>[6]</sup> The cause of renal stones formation is still obscure but the factors like hyper excretion of relatively insoluble urinary constituents like calcium, oxalate, uric acid etc. physical changes in the urine, decreased urinary output of citrate, vitamin 'A' deficiency, urinary infection, urinary stasis are involved.<sup>[7]</sup>

According to *Sushruta*, *Mutrashmari* is formed from the *Strotovaigunya* resulting from *dushit kapha* localised in *Basti* in conjunction with vitiated *Vata* and *Pitta*.<sup>[8]</sup> According to *Aacharya Sushruta*, *Mutrashmari* is of four types viz. *Vataj*, *Pittaj*, *Kaphaj* and *shukraj Ashmari*.<sup>[9]</sup>

Surgical treatment of urolithiasis described in modern medicine is PCNL & ESWL are more expensive & may cause some disadvantages. The urinary stones have a peculiar tendency of recurrence, despite of their surgical removal. Therefore, surgery is not a complete treatment is a part of treatment; hence there is need of alternative medicinal treatment.

Looking into the gravity of problem this study is attempted to evaluate a role of *Punarnava varun kwath*<sup>[10]</sup> in *Mutrashmari*. In which *Punarnava* has *Mutravirechaniya* property.<sup>[11]</sup> and *Varun* has *Ashmari bhedan*<sup>[12]</sup> effect.

## Case Report

### Major complaints

A patient of 24yrs/male came to OPD of Govt. Ayurveda Hospital, Osmanabad with following complaints -

|                     |                        |
|---------------------|------------------------|
| Pain in abdomen     | since 2 months         |
| Dysuria             | since 1 and half month |
| Nausea and vomiting | since 10 days          |
| Hematuria           | often                  |

### H/O Past illness

Patient was asymptomatic before 2 months then he got started above complaints for which he took treatment from private hospitals but no relief was observed hence, came to GAH, Osmanabad for further management.

### H/O of present illness

No H/o HTN, DM, IHD, COPD or any major illness.

There was no any specific medicinal and family history.

No H/o any surgical history found.

### Personal history

**Appetite** - Moderate

**Occupation** - Farmer

**Bowel habit** - Regular

**Micturition** – Burning micturition, 2 times /day

**Sleep** – Disturbed

**Diet** – mixed

**Water intake** – 2 lit/day

**Addiction** – Chronic Tobacco chewer, Tea 3-4 times/day

### Examinations

**Pulse**-70/ min

**B.P**- 110/70 mmHg

**RS**- Clear

**CVS**- S1S2 normal

**CNS**- Conscious and oriented

**P/A**- Soft, Tenderness at left lumbar, left iliac and hypogastric region.

### Investigations

**CBC** – Hb - 15 gm%, TLC -5500/cu.mm, PLT -254000/cu.mm

**BSL-R**- 106 mg/dl, Urine Routine/microscopic – WNL

**HbsAg** – Non reactive, HIV 1&2 – Non reactive

### MATERIAL AND METHODS

A patient was treated with *Punarnava varun kwatha* prepared by standard method of *kwatha* preparation and 40 ml *kwatha* given to patient before meal twice a day. Pt. is advised to follow the *pathyapathya*.

#### Method of drug preparation<sup>[13]</sup>

Standard method for *kwatha* preparation was used where in one part of the selected drug was immersed in 16 parts of water and reduced to 1/8<sup>th</sup> portion after doing *agni sanskara*.

So, accordingly, 20gm of drug (*punarnava*, *varun* give in same quantity bharad of these dravya) was immersed in 320ml of water and reduced to 40ml i.e. 1/8<sup>th</sup> portion, by heating the mixture. This method was found to be most preferred in order to insure maximum active principle in the given dosage.

#### Properties of *punarnava varun kwatha*

**Varun- Rasa:** Tikta, Kashaya, Katu

**Virya:** Ushna

**Vipaka:** Katu

**Guna:** Laghu and Ruksha

**Doshaghna:** Vataghna, Kaphaghna, Pittakar

**Prabhav:-** Ashmaribhedana, Raktadoshahar.

**Punarnava**

**Rasa** – Katu, Madhur, Tikta, Kashaya

**Virya** – Ushna

**Vipaka** – Katu

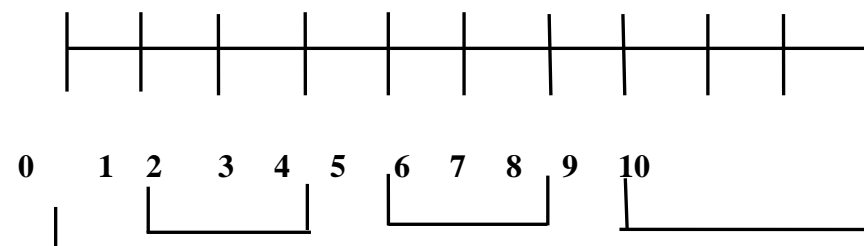
**Guna** – Laghu, Ruksha, Khara

**Dose:-** Punarnava varun kwatha – 40ml twice a day.

### Subjective parameters

#### I) Pain in abdomen

#### VAS SCALE (VISUAL ANALOGUE SCALE)



(Grade 0) (Grade I) (Grade II) (Grade III)

| Sr. No | Grade | Symptoms   |
|--------|-------|--|
| 1.     | 0     | Absence of pain<br>VAS Score – 0   |
| 2.     | I     | Pain present but does not disturb routine (mild pain)<br>VAS Score- upto 3       |
| 3.     | II    | Pain present which disturb routine (moderate pain)<br>VAS Score – upto 6         |
| 4.     | III   | Patients rolls on bed due to pain (severe pain)<br>VAS Score – more than 6 to 10 |

#### II) Dysuria

| Sr. No | Grade | Symptoms                           |
|--------|-------|------------------------------------|
| 1.     | 0     | Absence of pain during micturition |
| 2.     | I     | Mild pain during micturition       |
| 3.     | II    | Moderate pain during micturition   |
| 4.     | III   | Severe pain during micturition     |

**III) Hematuria**

| Sr. No | Grade | Symptoms                |
|--------|-------|-------------------------|
| 1.     | 0     | Absence of RBC in urine |
| 2.     | I     | Microscopic hematuria   |

**IV) Nausea**

| Sr. No | Grade | Symptoms                          |
|--------|-------|-----------------------------------|
| 1.     | 0     | No nausea                         |
| 2.     | 1     | Nausea associated with food stuff |
| 3.     | 2     | Intermittent nausea               |
| 4.     | 3     | Persistent nausea                 |

**V) Vomiting**

| Sr. No | Grade | Symptoms  |
|--------|-------|---|
| 1.     | 0     | Absence of vomiting                                   |
| 2.     | 1     | Mild vomiting 1 episode                               |
| 3.     | 2     | Reduced food intake 2-5 episodes                      |
| 4.     | 3     | Inadequate food and fluid intake more than 6 episodes |

**VI) Fever**

| Sr. No | Grade | Symptoms          |
|--------|-------|-------------------|
| 1.     | 0     | Absence of Fever  |
| 2.     | 1     | Presence of fever |

**Objective parameters**

Objective parameters taken under study are size of calculi and no. of calculi.

**RESULT****Subjective Criteria**

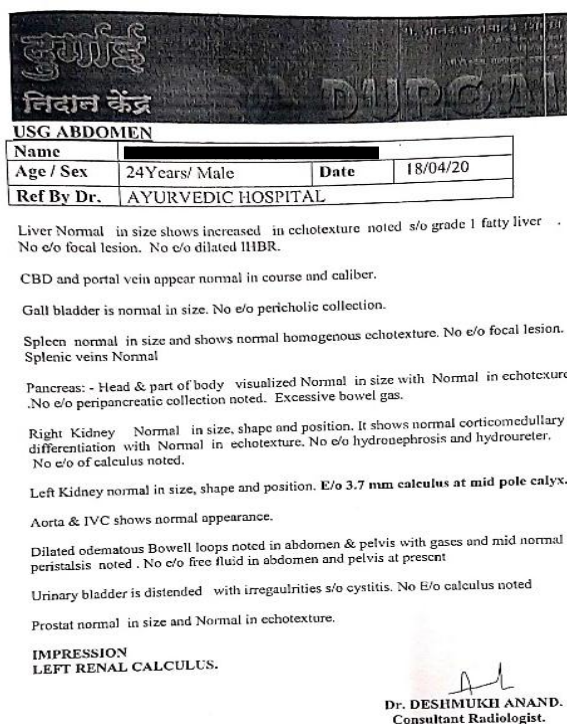
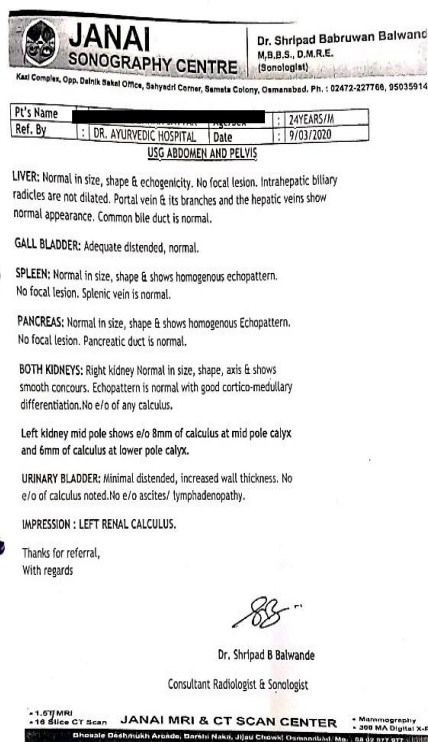
| Parameters      | 0 <sup>th</sup> day | 15 <sup>th</sup> day | 30 <sup>th</sup> day |
|-----------------|---------------------|----------------------|----------------------|
| Pain in abdomen | II                  | I                    | I                    |
| Hematuria       | I                   | 0                    | 0                    |
| Dysuria         | I                   | 0                    | 0                    |
| Nausea          | I                   | 0                    | 0                    |
| Vomiting        | I                   | I                    | 0                    |
| Fever           | 0                   | 0                    | 0                    |

**Objective criteria**

| Parameters       | 0 <sup>th</sup> day | 30 <sup>th</sup> day |
|------------------|---------------------|----------------------|
| No. of calculus  | 2                   | 1                    |
| Size of calculus | 8mm, 6mm            | 3.7 mm               |

## DISCUSSION

- *Punarnava* having *madhura tikta kashaya rasa, katu vipaka, ushna virya and laghu ruksha guna* act as a *Mutravirechaniya*. As the active principle of *Punarnava* i.e. *Punarnavin*, a type of alkaloid in nature which shows its diuretic action on renal epithelium ultimately results as *mutravirechaniya*.
- As in *ashmari kapha* is predominant, here *Punarnava* by its *kapha vata hara* and *shothahara* property shows marvelous results.
- Because of *tikta, Kashaya, katu rasa, katu-vipak, ushna virya, laghu ruksha guna* and *ashmaribhedan prabhav Varun* shows *lithotriptic action* so useful in urinary calculi.
- The *varuna* is an effective antiseptic and diuretic so it is also useful in urinary diseases and infections.
- Collectively combination of these two shows action like anti inflammatory, analgesics, diuretic, lithotriptic; ultimately lesser chances of nidus formation as well as growth of stone. Because of its *ras guna guna virya vipaka* and *prabhava* it normalises vitiated *dosha* and act as *shothahara, ashmaribhedan and vedanahar*.



## CONCLUSION

- Oral administration of *punarnava varun kwatha* twice a day before meal is effective in the management of *Mutrashmari*.

- All symptoms of *Mutrashmari* i.e. pain in abdomen, nausea vomiting, dysuria can be successfully managed with above treatment.
- It is more efficacious treatment with respect to cost, time, availability, palatability for the patient.

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