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Case Study

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# AYURVEDIC MANAGEMENT OF MUTRASHMARI (UROLITHIASIS) BY APAMARGA KSHARA AND SHWADAMSTRAVARUNADI KWATHA -A CASE STUDY

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### **ABSTRACT**

Mutrashmari is one of the most common disorders of the Mutravaha Srotas (Urinary system). It is one of the Ashtamahagada (Eight fatal conditions) as described in Ayurveda. It is a Kapha Pradhana Tridoshaja Vyadhi and is compared with urolithiasis due to resemblance in its clinical features. The formation of Mutrashmari is a result of complex physiochemical processes. The aim of this study is to assess the effectiveness of Shaman Chikitsa in treatment of Mutrashmari. This case study presents a 38-year-old male patient with symptoms of burning micturition, dysuria and abdominal pain (radiating pain from loin to groin) since 10 Days. Treatment was provided using Shaman Chikitsa and treatment outcomes was evaluated based on ultrasonography (USG) findings of the abdomen and pelvis, alongside clinical improvements in symptoms. The patient showed significant improvement in both radiological and clinical assessments.

**KEYWORDS:** *Mutrashmari*, renal calculi, urolithiasis, dysuria,

Apamarga Paneeya Kshara.

### INTRODUCTION

Mutrashmari, classified under Sushruta's Ashtamahagada<sup>[1]</sup> (eight deadly ailments), is a severe disorder of the urinary system. Ashmari is considered as one of the deadly ailments due to involvement of Basti<sup>[2]</sup> (Urinary bladder). Basti is one of the Tri Marma (Vital Organs) which plays a key role in this disorder due to its Marma Ashrayatwa and being the Vyakta Sthana<sup>[3]</sup> which makes it difficult to treat. Typically, urolithiasis is one of the most prevalent urinary tract disorders, characterized by the formation of urinary stones at various locations throughout the urinary system. These stones cause excruciating agony as they travel through the ureters and the urethra. Calculi prevalence varies by age group, sex and regional distribution. The lifetime prevalence of symptomatic urolithiasis is roughly 10% and 5% for men and women respectively. The male to female ratio for calculi is 3:1<sup>[5]</sup>, with the peak occurrence occurring between the ages of 30 to 50 years. Mutrashmari is Kapha Pradhana Tridoshaja Vyadhi. Clinical aspects are used to draw comparisons with urolithiasis.

*Mutravaha Srotas* often reflects an imbalance between elements in the urinary system that promote and inhibit the formation of stones. A series of events, including urine saturation, crystal nucleation and development, crystal aggregation and retention and ultimately stone formation, result in urolithiasis. This complicated Physio-Chemical process underlies the production of any urinary stone.

#### **AIM**

The aim of the study is to evaluate the efficacy of *Shamana Chikitsa* in the management of *Mutrashmari* (Urolithiasis).

### **CASE REPORT**

A 38-year-old male patient visited OPD of Department of Shalya Tantra, TMAES Ayurvedic Medical College, Hosapete, Karnataka with Complaints of abdominal pain, lower back pain, pain in groin area, dysuria and burning micturition since 10 days.

### **History of Present Illness**

Patient was said to be apparently normal 10 days back, later he developed complaints of abdominal pain, lower back pain, pain in groin area, dysuria and burning micturition. He consulted modern medical practitioner, who diagnosed kidney stones and prescribed

Analgesics and Antispasmodic drugs for relief from the symptoms. Lithotripsy was advised, but the patient was unwilling to undergo the procedure.

**Family History:** No relevant history.

# **Personal History**

- Marital Status: Married

- Addictions: Occasional Consumption of alcohol, does not smoke or use tobacco

Bowel: RegularAppetite: Good

- **Micturition:** 10-11 times/day, 2 time/night

- Sleep: Disturbed

- Water intake: 1-2 litres 24 hours

### **General Examination**

Built: ModeratePallor: Absent

- **Icterus:** Absent

- Clubbing: Absent

- Cyanosis: Absent

- **Lymphadenopathy:** Absent

- **Oedema:** Absent

### **Vitals**

- **B.P:** 130/80 mmHg

- **P.R:** 80 bpm

- **R.R:** 18 cycles /min

- **SPO2:** 97%

Height: 167 cm.

Weight: 64 Kg.

#### Asthavidha Pariksha

Nadi	Vata-Pitta
Mala	Mala Stambha
Mutra	Daha
Jihva	Anavrit
Shabda	Prakruta
Sparsha	Ushna
Drik	Prakruta
Akriti	Madhyama

# **Systemic Examination**

**RS:** Air Entry Bilaterally Equal (AEBE)

CVS: S1, S2 Normal, No added sounds

CNS: Conscious oriented, No apparent disease (NAD)

# **Specific Examination**

• **Inspection:** No scars observed

• Palpation: Renal angle tenderness present

• Tenderness: Present in the left hypochondriac region

# Investigation

CBC:	Urine Report: Colour- Pale	
Hb- 14.3gm/dl RBC- 5.8	Yellow Appearance- Clear	<b>Bio- Chemical Test</b>
million/cu	pH/Reaction- 6.2	Blood Urea - 33.2 mg%
TC-9620 cells/cumm	Specific Gravity -1.015 Epithelial	S.Creatinine - 0.9 mg%
Monocytes -03%	Cells - 1-2 Ep Cells/HPF	S. Calcium – 10.8mg%
Lymphocytes - 21%	Pus Cells- 1-2 cells	S. Uric Acid- 5.5mg%
Eosinophil -07%	Albumin – Nil Sugar - Nil	

# Ultrasonography of abdomen and pelvis revealed

- Left renal calculi measuring 8.2 mm in the lower calyx and 5mm in the mid calyx.
- Left ureteric calculus measuring 5 mm.
- Mild left hydronephrosis

Clinical Diagnosis: Mutrashmari (Urolithiasis)

# Samprapti Ghataka

Samprapti Ghataka	Mutrashmari
Dosha	Tridosha
Dushya	Mutra
Agni	Jataragni mandya
Ama	Jatharagni mandya
Srotas	Mutravaha srotas
Udbhava sthana	Amashaya and pakwasaya
Sanchara sthana	Siras,Amapakvashaya mutravaha srotas
Adhisthana	Mutravaha strotas
Vyakta sthana	Mutravaha srotas
Dusti kara	Sanga
Rogamarga	Madhyama
Vyaadhi sambhava	Mutra Apravritti janya vikar
Sadhyasadhyata	Kruchchha,Shastra sadhya

# **Drug Review**

# Apamarga Kshara<sup>[6]</sup> and Shwadamstravarunadi kwatha<sup>[7]</sup>

S.no	Drugs Name	Latin Name	Rasa	Guna	Vee Rya	Vipaka	Karma
1	Apamarga	Achyranth es aspera	Katu, Tikta	Laghu, Ruksha, Tikshna	Ushna	Katu	KaphaVataShamaka, VedanaStapaka, Lekhana, Krimighna Mutrala, Ashmari Nashaka Deepana, Pachana
1	Shwadamstra	Tribulus terrestris	Madhura	Guru, Snigdha	Shita	Madhura	Vrushya, Mutrala, Rasayana, Vatapittahara
2	Varuna	Crataeva religiosa	Tikta, Kashaya	Laghu, Ruksha	Ushna	Katu	Dipana, Krimighna, Kaphavatahara
3	Shunthi	Zingiber officinale	Katu	Guru, Ruksha, Tikshna	Ushna	Madhura	Vatakaphahara, Deepana, Bhedana, Shula-Shophahara

# MATERIALS AND METHODS

### **Patient Treatment Plan as**

Sr.no	Name of the Drug	DOSE	Kala	ANUPANA	<b>DURATION</b>	
1	1		After	Jala	20 Davis	
1.	Apamarga Kshara	BD	Food	Jaia	30 Days	
2	Shwadamstravarunadi	32ml	After	Kshoudra 2ml	20 Dove	
2.	Kwatha	TDS	Food	Ksiloudra 2IIII	30 Days	

# **ORAL ADMINISTRATION**

*Apamarga Kshara*: 500mg Capsule BD with Water *Shwadamstravarunadi Kwatha*: 2 *Pala*<sup>[8]</sup> (32ml)- TDS *ANUPANA*: *Kshoudra* (Honey) (2ml)<sup>[9]</sup>

# **ASSESMENT CRITERIA SUBJECTIVE CRITERIA**

#### 1. PAIN

Sr.No.	SYMPTOM	Grade
1.	No pain	0
2.	Mild pain	1
3.	Moderate pain	2
4.	Severe pain	3

### 2. DYSURIA

Sr.No.	SYMPTOM	Grade
1.	No Dysuria	0
2.	Mild Dysuria (Slight discomfort)	1
3.	Moderate Dysuria (Moderate Pain or discomfort during urination)	2
4.	Severe Dysuria (Intense pain or continuous discomfort during urination)	3

# 3. BURNING MICTURITION

Sr.No.	SYMPTOM	Grade
1.	No Burning micturition	0
2.	Burning micturition Present	1

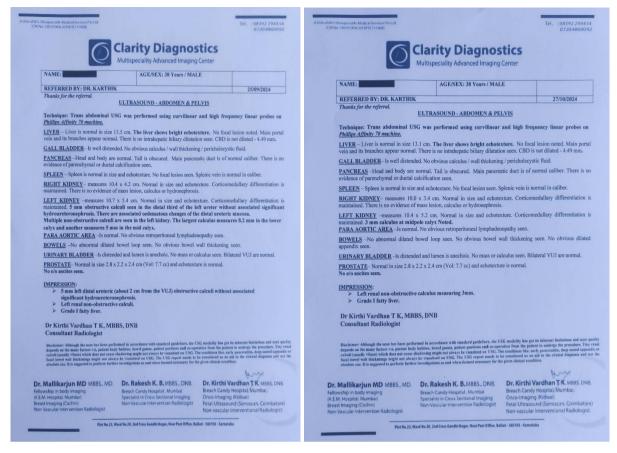
# **OBJECTIVE CRITERIA**

The assessment is based on USG findings of abdomen and pelvis.

### **OBSERVATIONS AND RESULTS**

The patient was reviewed 30 days later. After taking medication, a follow-up USG of the abdomen and pelvis revealed a reduction in the size of calculus, However, the calculus in the left mid calyx and left ureter had passed and there was no evidence of hydronephrosis.

Sr. no	Assessment Criteria	Before Treatment	15 <sup>th</sup> Day	After Treatment
1	Pain	3	2	0
2	Dysuria	2	1	0
3	Burning micturition	1	0	0



**Before Treatment** 

**After Treatment** 

### DISCUSSION

Urinary calculus is a stone-like body composed of urinary salts bound together by a colloid matrix of organic materials. It consists of a nucleus around which concentric layers of urinary salts are deposited. Ureteric stones usually originate in the kidney. Gravity and peristalsis both contribute the spontaneous passage into and down the ureter. The probable pathological changes are obstruction (partial/complete), impaction, infection and ulceration.

### Probable mode of action of Apamarga Kshara and Shwadamstravarunadi Kwatha

• Apamarga Kshara is effective in treating kidney stones due to its Bhedana (stone breaking), Pachana (digestive), Shodhana (purification), and Mutrala (diuretic) properties. It has Kapha-Vata Shamaka and Kapha-Pitta Samshodhaka effects on the body. The presence of phytochemicals like alkaloids, saponins and potassium salts helps to dissolve and fragment the stones. It also alkalizes the urine, thus reducing its acidity and preventing further formation of stone and also prevent the growth of microorganisms. Its Mutrala (diuretic) activity increases urine output, aiding in the expulsion of stones, while Shodhana (purification) property of Apamarga Kshara eliminates the

Pathogenic Micro-organisms from the Urinary tract and its anti- inflammatory properties helps to reduce the swelling and pain in the urinary tract, providing overall relief from the symptoms.

- Gokshura is Sheeta (cold) in potency and Madhura (sweet) in taste. It has the Balya (strength provider) property beneficial in providing strength to the body. Gokshura is known to balance Tridosha (Vata-Pitta-Kapha). It is also used to manage urinary disorders due to its Mutrala (diuretic) property.<sup>[10]</sup>
- *Varuna* is best litholytic herb and it has been used throughout ages to treat crystalluria and urolithiasis. It has ability to cure kidney stones, kidney disorders and other underlying symptoms associated with renal system. It helps to deactivate glycolate oxidase enzyme which decreases the extra production of oxalate. Oxalate is responsible for the formation of calculi; thus, it helps to hinder the production of calcium salts.<sup>[11]</sup>
- *Varuna* is best herb to reduce painful urination caused by enlarged prostate. It helps in the strengthening of bladder muscles. It helps to remove extra body toxins especially urea and creatinine that are harmful for body functioning.
- *Shunti* with its anti-inflammatory properties helps to reduce the inflammation in the urinary tract, alleviating pain associated with stones.
- Kshoudra as Anupana enhances the potency, absorption and palatability of the drug.

### **CONCLUSION**

Shwadamstravarunadi Kwatha is an unexplored drug and Apamarga Kshara is a well-known preparation are both effective in the management of Ashmari having Ashmarighna, Anulomana and Mutrala properties. Even though it is difficult to treat Ashmari, this drug combination has shown significant results in reducing the size of stone, promoting stone expulsion and alleviating associated symptoms. It is simple to use and cost-effective. There is a need of a large-scale study to determine the exact efficacy of this Treatment.

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