

## MANAGEMENT OF MUTRASHMARI (UROLITHIASIS) BY SHWADANSHTRADI KWATH – A CASE STUDY

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### ABSTRACT

*Mutrashmari* (Urolithiasis) is a disease that remains a significant health problem. There are number of crystalloids present in urine e.g. oxalate, uric acid, calcium and cystein which are kept in solution by the presence of colloids. Imbalance of crystal colloid ratio and urinary super saturation is responsible for urinary stone formation. Due to changing lifestyle, climate, dietary habits and occupational factors, incidence of calculus is increasing day by day. Identification of common modifiable risk factors for urine stone formation may result in new approach for treatment. *Shwadanshtradi kwath* mentioned in *Ayurvedic* text is a combination of herbal drugs which are mostly *Ushna Virya dravyas* having *Mutrashmari bhedan*, *Vedanasthapan* and *Mutra-vishodhan* properties. It results in *Ashmari bhedan* and consequent expulsion of calculi.

**Keywords:** *Mutrashmari*, *Urolithiasis*, *Shwadanshtradi kwath*, *Ashmaribhedan*

### INTRODUCTION

*Mutrashmari*<sup>[1]</sup> is one of the most prevalent diseases in our country more common in relatively young and productive age group. It is common in men 12 % than women 6 %. Its pain is worse than that of labour pain. The disease comes under *ash-tamahagadas*<sup>[2]</sup> described by *Acharya Sushruta*. He had described in detail its classification, etiology, pathology, symptomatology, complication and its management<sup>[3]</sup>. According to modern science it is compared with Urolithiasis. The formation of urinary stone is a complex physio-chemical process which involves sequence of events as urinary saturation – super saturation – nucleation – crystal growth – crystal aggravation – crystal retention – stone formation<sup>[4]</sup>. It is a disease having tendency of recurrence within 5 to 10 years (52 %)<sup>[5]</sup>. Various risk fac-

tors has been identified for stone formation and these included Vit A deficiency, excessive administration of Vit D, metabolic disorders, hyperthyroidism, gout, idiopathic hypercalciurea, acidurea, hot climate, family history of urinary stone, geographic area, dietary factors rich with calcium like red meat, fish, cereals and pulses, fluoride rich water and recurrent urinary tract infection also plays an important role as a risk factors<sup>[6,7,8]</sup>. *Samprapti* described by *Acharya Sushruta* is *asanshodhanshilata* and *mithya ahar* which causes *Kaphaprakop* and by *strotovaigunya* leads to *Mutrashmari*<sup>[9]</sup>.

Various treatment modalities are available recent times but they are too expensive and available at higher centers. Surgical procedures described in modern science cannot interfere with pathogenesis

behind recurrent stone formation. Therefore, it is a need to find out readily available, economical and easily acceptable treatment for *Mutrashmari*. *Acharyas* in *Samhita granthas* had mentioned various treatment modalities. *Acharya Sushruta* said that before going to surgical procedure one should try with *ghrita*, *Kshar*, *Kashaya* and *Uttarbasti* <sup>[10]</sup>. *Shwadanshtradi Kashaya* <sup>[11]</sup> mentioned in *Bhaishjyarnavali* has 4 herbal ingredients – *Varun*, *Gokshur*, *Shunthi* and *Erandpatra*. It has *Ashmaribhedan*, *Mutravishodhan* and *vedansthan* property. Also it is easy to prepare and economical. So in the present case study *Shwadanshtradi kwath* is selected for management of *Mutrashmari*.

### CASE HISTORY

A 40 years old male patient presented with complaints of abdominal pain associated with increased frequency of micturation, burning micturation and dribbling micturation since 3 months. Patient had renal calculus (left lower pole) of size 6 mm. he got temporary relief from the treatment of nearby general practitioners. But the complaints still persisted so he came to OPD of our hospital for treatment. According to history pain was dull, colicky intermittent and was appreciated in left flank, increase frequency of micturation and dribbling micturation was also present. There is no history of major illness like diabetes, hypertension,

bronchial asthma, tuberculosis or Urolithiasis. Diet history reveals that he is nonvegetarian and his food intake was irregular due to his stressful occupation. On examination of patient his vitals were normal. Per abdominal examination reveals pain in left flank. As per advice patient underwent blood and urine examination, USG- abdomen and pelvis and X – ray KUB on 11-3-2015. Report revealed 6 mm calculi in left kidney lower pole. X- Ray KUB does not reveal any abnormality. Blood, urine and KFT investigations were within normal range. As per classic features of *Mutrashmari* such as *Vedana*, *Sadah mutrata*, *mutratipravriti* were observed on the basis of *nidan* and *rupa*. This clinical condition was diagnosed as *Mutrashmari*. As described above

*Shwadanshtradi Kashay* was administered to him in the dose of 40 ml OD after breakfast in the morning. Patient was asked to follow dietary instructions and activity. Follow up was taken on 15<sup>th</sup>, 30<sup>th</sup> and 45<sup>th</sup> day. On first follow up, it was observed that all clinical complaints subsided except pain. On second follow up pain subsided. During third follow up all clinical features subsided. He was advised USG and it was confirmed that there is no calculus. Later he was advised to follow *pathyapathya* (prescribed diet).

**Table 1: CBC, KFT, Urine investigations**

Blood	Value	KFT	Value	Urine	value
HB %	12.3 gm%	Blood Urea	34 mg/dl	Albumin	Nil
TLC	7700 /cumm	Sr. Creatine	0.94 mg/dl	Sugar	Nil
ESR	17 mm			Micro.	NAD
BSL – R	89 mg/dl			PH	Acidic

Table 2: USG reports

Date	Clinical features	USG findings
11-3-2015	Pain, burning micturation, increased frequency micturation.	6 mm calculus in left kidney lower pole.

8-5-2015	No complaints	Normal USG findings.
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## DISCUSSION

The ingredient *Gokshur*<sup>[12]</sup> (Tribulus Terrestris) contains ample amount of potassium salts and alkaloids which is responsible for *mutral* and *ashmarinashan karrma*. *Varun* (Crataeva Nurvula) bark generates fridelin, saponin, tannin, disogenin and betulinic acid which has diuretic action that slows down and hinders the formation of stone inside the organs. Also it has *Ashmaribhedan Prabhav*. *Sunthi* (Zingiber Officinale) contains oil of ginger zingiberine, gingerin. It acts as a supportive drug in reducing pain and swelling associated with calculus. Therefore, it is added. *Eranda* (Ricinus communis) contains amylase, invertase and other enzymes. It's *adhobhagher prabhava* (mode of action not known) causes *Mutravishodhan* and *vedanasthapana karma*. Except *Gokshur* all three ingredients are *ushnaviryas* due to that it has urolithiatic property. Also due to *mutral* and *shodhan guna* it has diuretic property. Due to these *gunas* it breaks the *Kaphavataj sanghat* that is *samprapti* (etiopathogenesis) of *Mutrashmari* resulting in breakdown and expulsion of calculi.

## CONCLUSION

It can be concluded that *Shwadanshtradi kwath* has capability of reducing pain, polyurea, burning micturation, reduction of size and expulsion of calculus. The above mentioned preparation does not have any systemic toxicity. The study opens door for further studies to evaluate the efficacy of *Shwadanshtradi kwath* in management of *Mutrashmari*.

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