

EVALUATE THE EFFICACY OF AYURVEDIC MANAGEMENT IN THE VRIKKASHMARI (UROLITHIASIS) - A CASE STUDY

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ABSTRACT

Vrikkashmari (Renal calculi) is a very common disorder. The mechanism of stone formation is a complex process which results from several physicochemical events including super saturation, nucleation, growth, aggregation, and retention of urinary stone constituents within tubular cells. *Ayurveda* treatment mainly focuses on *samprapti vighatana* (breaking down the pathogenesis). The main aim of this study was to evaluate the *mutral* and *ash-marighan* action of *Gokshuradi guggulu* and *chandraprabhavati* and *varunadi kashaya*. A case of pain abdomen diagnosed with left side lower ureteric calculus with mild hydronephrosis was given above treatment for a period of 8 weeks. Symptoms of pain abdomen and dysuria subsided within a week and repeat Ultrasonography after 8 weeks revealed normal study.

Keywords: hydronephrosis, *Gokshuradi guggulu*, Ultrasonography, *Vrikkashmari*

INTRODUCTION

The disease *Mutrashmari*¹ is one among the *Ashtamahagada* (Eight fatal conditions) formed in the urinary system.^{2,3} Based on its clinical features, it is compared to Urolithiasis. Urolithiasis is a consequence of multifaceted physicochemical process which involves sequence of events in the formation of any Urinary stone. It is as follows

Urinary saturation → Super saturation → Nucleation → Crystal growth → Crystal aggregation → Crystal retention → Stone formation.⁴

The lifetime prevalence of symptomatic Urolithiasis is approximately 10% in men, 5% in women and the probability of the second stone formation within 5 – 7 years is approximately 50%.⁵

Various risk factors have been identified and these includes a family history of Urinary stones, Insulin resistant states, history of Hypertension, Primary Hyperparathyroidism, history of Gout, Chronic Metabolic acidosis and Surgical Menopause.⁶ In fact, *Paathyapathya* has been shown to be an important factor. A diet rich in cereals and pulses, fluoride rich water, intake of fruits such as oranges and grapes and the presence of nano bacteria plays a vital role.^{7,8}

Many treatment modalities have been adopted in modern medicine to combat the disease but it is quite expensive and also the pathogenesis behind recurrence of formation of stone persists. Therefore it is neces-

sary to find out an economical, effective, easily available and acceptable medicine to treat *Mutrashmari*.

In modern science many treatment option are available for *mutrashmari* starting from conservative (Hydrotherapy) to minimal invasive surgical intervention (Laparoscopic surgery) with their own limitations. Surgical option is more as compare to conservative management. Surgical procedure required high expenditure and skilled labour and also have high rate of recurrence. So it is obvious patients turn to alternative of *Ayurveda* treatment to combat with the disease.

In *Ayurvedic* literature all sorts of methodologies including surgical technique have been described. *Acharya Sushruta* said that before going for surgical procedures one should try with oral medications like

Ghrita (Medicated ghee), *Taila* (Medicated oil), *Paneeeya Kshara* (medicated Alkali preparation) etc.

which possesses the properties such as, *Chhedana* (Cutting, Breaking), *Bhedana* (Splitting), *Lekhana* (Scarification) and *Mutrala* (Diuretic) for facilitating the disintegration of the Urinary stones.⁹ Hence in this present clinical study, a *Gokshuradi guggulu*, *Chandraprabhavati* and *varunadi kashaya* are selected for the management of *Mutrashmari*.

Case History:

A Male patient aged 36 years visited the OPD of Govt. *Akhandanand Ayurved Hospital*, Ahmedabad in the month of December, 2018 with the complaints of spasmodic pain on left side of abdomen and back radiating to lower abdomen, with pain and burning during urination since 7days.(Table-1).

Table-1: Clinical examinations:

General physical examinations:	Built: moderate Eyes: no pallor, Tongue: clear B.P- 130/80 mm of Hg, Pulse Rate: 84/min.
Per Abdomen	Inspection: No abnormality seen Palpation: Soft abdomen, mild tenderness elicited on Left side lumbar region.
USG whole abdomen	USG whole abdomen revealed leftside mild Hydronephrosis with dilation of left upper ureter, s/o 6 mm size lower ureteric calculus along with S/P/O multiple Gallbladder Calculi.

Table 2: Intervention:

drug given	Dose	Follow up	Advise
1. <i>Gokshuradi guggulu</i>	300 mg 2 tds	1 week	Plenty of water; 2-3 litres per day
2. <i>Chandraprabhavati</i>	250 mg 2 tds	1 week	As above
3. <i>Varunadi kashaya</i>	20 ml bds	1 week	As above

Table 3: Assessment criteria:

Signs and symptoms	Grade 0	Grade 1	Grade 2	Grade 3
Pain	No pain	Mild pain	Moderate pain	Severe pain
Burning Micturation	Absence of burniung micturation	Occasional burniung micturation	Burning micturation in half of urination	Severe burning micturation at every urination

Table 4: Observations and results:

Complaints	0 day (BT)	7 th day	14 th day	21 th day	28 th day	30 th day (AT)
Pain	3	3	2	2	1	0
Burning micturation	3	2	1	0	0	0

Result:

Patient got significant relief in pain abdomen within a week and by the end of Third week, complete relief

was there in pain abdomen and burning micturation.(Table-4)

Repeat USG was advised after 4 weeks which showed normal study. (Scanned copies of USG before and after treatment attached).

DISCUSSION

Gokshuradi guggulu¹⁰ is an ayurvedic preparation containing herbs like *Gokshura*, *guggulu*, *triphala*, *trikatu* and *musta* (Table-2). It is used to cure *prameha*, *pradara*, *vatarakta*, *mutraghata* and *ashmari*. *Gokshuraashashmarighna*. (lithotriptic) and *mutral* (diuretic property). Its fruits contain small quantity of essential oil, resins and nitrates.¹¹ *Guggul* has *vatashamaka*, *Ashmari bhedan* properties and *guggul* /gum resin is antiseptic, enriches the blood, demulcent, antispasmodic, carminative,¹² *Musta* is diuretic and stimulant¹³ thus favours expulsion of calculus.

Chandraprabhavati: It is a herbomineral formulation indicated in *Mutrakrichha* (dysuria), *Ashmari* (Urinary calculi) and found to be safe for renal function¹⁴. It contains *Shilajatu* (bitumen) which is a drug of choice for the management of *Vastigata vyadhi* (Urinary disease). Its ingredient Camphor (*Cinnamomum camphora*) acts as an anti-inflammatory, antiseptic, diuretic and recommended in urinary tract infections. Other contents like *yavakshar* (alkali preparation of barley) and *swarjikakshara* (baking soda) are the alkaline substances which decrease the acidity of urine and used in the treatment of *ashmari*, *mutrakrichha*. It contains potassium bicarbonate, potassium sulphate, potassium chloride, thus acts as an alkalizer and helps in the disintegration of renal calculi¹⁵.

Varunadi kashaya: Ingredient of *varunadi kashaya* are *varuna*, *gokshura*, *shunthi* and *yavakshara*. It has properties of *chedana*, *bhedana*, *lekhana*, *tridoshaghna*, *mutrala*, *anulomana* and *krimighna*. *Kaphvataghna* property of *varunadi kashaya* helps in breaking down the pathogenesis of *ashmari*¹⁶.

CONCLUSION

The present case study proves the dual action *Gokshuradi guggul* and *Chandraprabhavati* in treating a case of *mutrashmari* (urolithiasis) and *Pittashmari* (cholilithiasis). Further studies should be done in more

such cases to strengthen and validate the multiple actions of Ayurveda drug compounds.

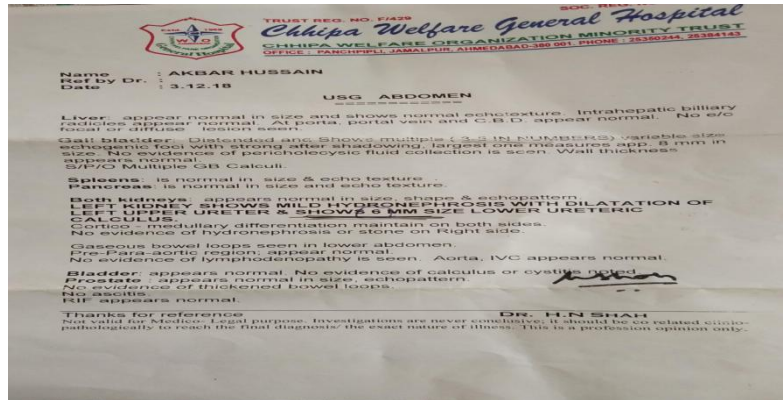
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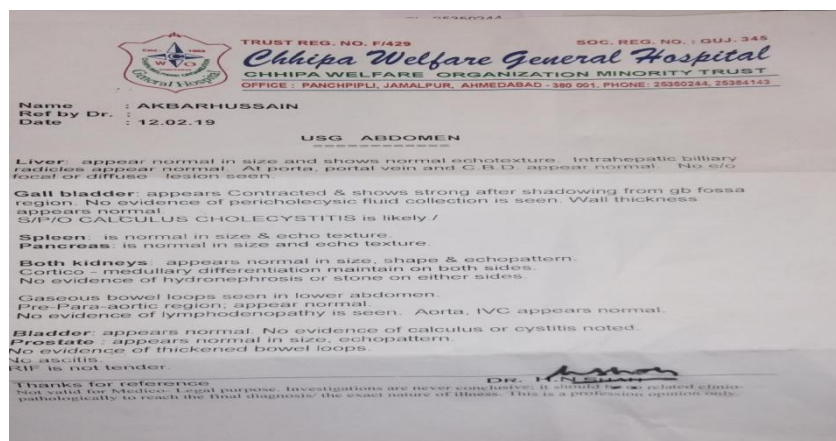
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USG Reports of patient

Before treatment:



After treatment:



Source of Support: Nil

Conflict Of Interest: None Declared

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