



## CONTROL CLINICAL EVALUATION OF KULATTHADI YOGA AS ASHMARIBHEDANA IN MUTRASHMARI

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### ABSTRACT

Urolithiasis, a presence of calculi single or multiple in renal or urinary tracks is a clinical entity which has been universally accepted as problematic condition regarding its treatment in all systems of medical science. There is no known drug therapy at present which dissolves or fragments the calculi by changing lithogenic potential of particular person. Urinary calculi disease has been described in detail under the heading of Ashmari in Ayurvedic texts. Ashmari is one of the few surgical conditions which have been given very prominent place in Ayurveda by Acharya Sushruta and Various herbs like Kulattha (*Dolicos Biflorus*), Gokshura (*Tribulus Terrestris*), Apamarga (*Achyranthes Aspera*), Pashanbheda (*Berginia Lingulata*) and Varuna (*Crataeva Nurvela*) etc. and herbomineral compounds are described which are effective against urolithiasis by dissolving calculi thus facilitating their expulsion. This study was aimed to evaluate Ashmaribhedana property of “Kulatthadi yoga” in Mutrashmari to make an effective, long lasting, cost effective, authentic alternative & easily available conservative management of Mutrashmari. After observation, it was found that Kulatthadi Yoga is effective in Kapha-Vataja Mutrashmari & control group shows significant result in Mutrashmari.

**Keywords:** Urolithiasis, Kulattha, Gokshura, Apamarga, Ashmaribhedana.

### INTRODUCTION

Suppressing the natural urges is seen on large scale in daily practice & finally leading to illness. Urolithiasis is common & painful disease of urinary tracks<sup>10</sup>. Scientist has found kidney stone first in Egyptians mummy. In Ayurveda urinary calculi have been described in detail under the heading of Ashmari<sup>1</sup>. It is one of the few surgical conditions which have been given very prominent place in Ayurveda by Acharya Sushruta<sup>1</sup>.

There is no known drug therapy in modern medicine at present which dissolves or fragment the calculi in the system by changing lithogenic potential of particular person. The only rational treatment in modern medicine is surgical removal or lithotripsy of calculi. However, this procedure does not stop subsequent formation of calculi. Acharya Sushruta has described number of drugs which are effective against Urolithiasis like Kulattha (*Dolicos Biflorus*), Gokshura (*Tribulus Terrestris*), Apamarga (*Achyranthes Aspera*), Pashanabheda (*Berginia Lingulata*) & Varuna (*Crataeva Nurvela*)<sup>2</sup> etc. which helps in dissolution of calculi thus facilitating their expulsion. This study was aim to evaluate control clinical evaluation of Ashmaribhedana property of “Kulatthadi yoga” in Mutrashmari to make an effective, long lasting, cost effective, authentic alternative & easily available conservative management of Mutrashmari.

### MATERIALS AND METHODS

60 diagnosed cases of Mutrashmari of any sex in the age group of 12-60 yrs having calculus of size 1-10 mm were randomly selected. Randomization was done by using a simple random sampling method by which the participants were allocated in to study group (group A) & control group (group B). Patients of Mutrashmari having size of calculi more than 10 mm, congenital anomalies of kidney, ureter, bladder and having benign prostatic hyperplasia, hypertension, cancer, diabetes mellitus, renal failure, renal tuberculosis, stricture urethra and blood dyscrasias were not included in this study. Institutional ethics committee approved the study. All the participants were given

information sheets and obtained written informed consent from them.

### Investigation

All the patients were investigated for haematological investigation like Haemoglobin, complete blood count, erythrocyte sedimentation rate (ESR), Fasting and post prandial blood sugar levels, liver function tests, renal function tests, HIV, VDRL, HBsAg and Urine. Ultra sonography of abdomen & pelvis and plain X-ray KUB was performed<sup>9</sup>.

### Methods of preparations & administration

The study medicine Kulatthadi yoga was prepared by Ghana of Kulattha (*Dolicos biflorus*) & Gokshura (*Tribulus terrestris*) as per standard procedure describe in sharangadhar samhita<sup>5</sup>, and then Apamarga (*Achyranthes aspera*) Kshar was added to it & filled into capsule of 500 mg. (Kulatha Ghana 250mg, Gokshura Ghana 220mg, Apamarga Kshar 30 mg). Botanical identification & standardization of this Ayurvedic formulation were carried out by Dhootpapeshwar pharmacy. The participant of group A were advised to take capsules of Kulatthadi Yoga two capsule three times day with water & The participant of group B were advised to take Tablet Cystone two tab, thrice a day with water. The participants enrolled for study were assessed by subjective & objective parameters both before & after trial with specially designed proforma.

### Assessment Parameters

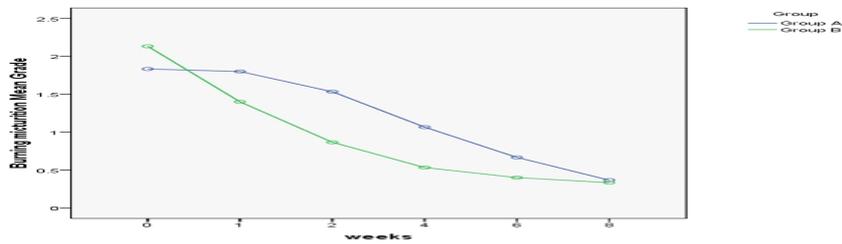
#### a) Subjective Parameter

1. Burning Micturition
2. Frequency of Micturition
3. Haematuria
4. Dribbling Micturition

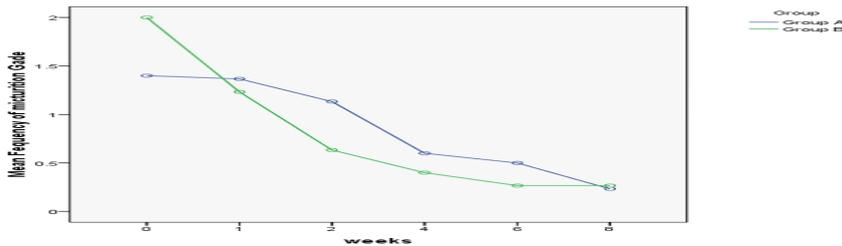
Gradation was done by symptom score rate method. Four point scale (0-3)

#### b) Objective Parameters- Ultra Sonography of Abdomen & pelvis, plain X-ray- KUB.

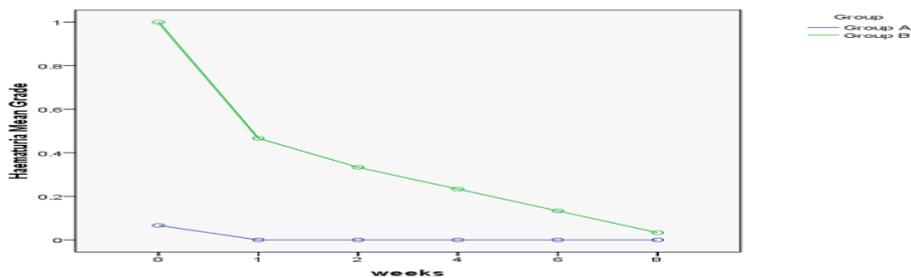
Participants were reviewed on every 7<sup>th</sup> day, 14<sup>th</sup> day, 28<sup>th</sup> day, 42<sup>nd</sup> day, 60<sup>th</sup> day of study. Clinical examination was done on every follow up visit. Laboratory investigations were done before & after completion of the study.



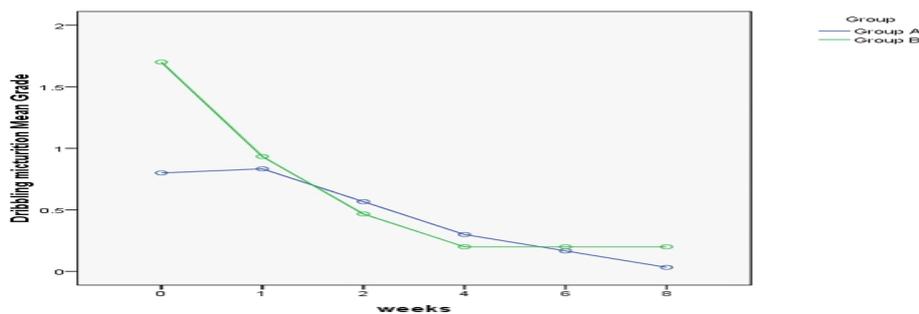
Graph 1: Effect of therapy on symptom- Burning Micturition on every follow up



Graph 2: Effect of therapy on symptom Frequency of Micturition on every follow up



Graph 3: Effect of therapy on symptom Haematuria on every follow up



Graph 4: Effect of therapy on symptom Dribbling Micturition on every follow up

**RESULTS AND DISCUSSION**

**Statistical analysis**

The data was entered using MS-EXCEL 2007 and was analysed using SPSS-16. The appropriate tests of significance (e.g. Chi-square test, unpaired t test, Paired t test & Repeated Measures ANOVA test) were used according to type of data (Numerical, Ordinal, nominal) & distribution of data (Normal distribution). P value of less than 0.05 was taken as significant.

**Demographic study**

**Age:** prevalence of urolithiasis is found in age group 21-40 yrs. i.e. 73% belong to this age group.

**Sex:** generally the disease affected both sexes equally, in this study sex wise distribution shows male patient (65%) to be more affected.

**Occupation:** out of 60 patients 23.3% of patients were of sedentary type of work. This shows that occupational incidence has very important role in urolithiasis.

**Prakriti:** Out of 60 patients, pitta prakriti were 1.7%, pitta kaphaj prakriti were 11.7%, kaphaja prakriti were 25%, kapha pittaja prakriti were 11.7%, kapha-vataja prakriti 5%, vata-kaphaja prakriti 23.3%, vata pittaja prakriti 21.7%.

This show that maximum tendency of urolithiasis is in kaphaja & vata-kaphaja prakriti.

**Diet:** More occurrences of stone were seen in mixed diet patient. (68.3%)

**Clinical study**

**Effect of therapy on symptom:**

The effect on Burning Micturition of group A shows significant result from 1<sup>st</sup> week to 8<sup>th</sup> week (p value 0.00) & group B shows significant result in 2<sup>nd</sup> to 8<sup>th</sup> week (p value 0.000).

The effect of therapy on Frequency Micturation of group A shows significant result from 2<sup>nd</sup> week to 8<sup>th</sup> week (p value 0.000). & group B shows significant result in 8<sup>th</sup> week (p value is 0.000).

Effect of therapy on Haematuria on group A shows statistically significant result from 1<sup>st</sup> week to 8<sup>th</sup> week (p value .000). Group B shows insignificant result from 1<sup>st</sup> to 8<sup>th</sup> week (p value 1.61).

The effect on Dribbling Micturition of group A shows significant result from 1<sup>st</sup> week to 8<sup>th</sup> week (p value 0.000) & group B shows significant result in 8<sup>th</sup> week (p value 0.00 )

The effect on size of calculi of group A shows significant result (p value 0.000) & group B shows statistically significant result (p value is 0.00).

So the effect of therapy on both A group & B group shows significant result.

Results are presented in graphs no. 1-4.

## CONCLUSION

The review of literature & practical view of the study suggest a relevant relationship between Mutrashmari & urinary calculi<sup>7,10</sup>. The etiopathogenesis of mutrashmari & urolithiasis appear to be similar<sup>1,10</sup>. Ayurvedic formulation i.e. Kulatthadi yoga<sup>4</sup> which is used for study group have an ability to dissolve or fragment the urinary calculi due to kaphagna, mutrala, ashmaribhedana properties of all the component drugs<sup>3,6</sup>. Significant results are seen in kapha-vataja mutrashmari and it may reduce subsequent formation of calculi. Control group (tablet cystone) also shows significant result in Mutrashmari. Both drugs relive burning

micturation, dribbling micturations, and frequency of micturition. No any adverse effects were reported during the study period. But Kulatthadi yoga is more cost effective than tablet cystone.

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