



## Role of herbal medicines in the management of renal calculi - a review

Suguna M<sup>1\*</sup>, Arul Jothi P<sup>1</sup>, Mohana Prabha G<sup>1</sup>, Dhineshraman G<sup>1</sup>, Arul Jothi P<sup>1</sup>, Sundararajan S<sup>2</sup>

<sup>1\*</sup> PG Scholars, Department of Noi-Naadal, Government Siddha Medical College and Hospital, Palayamkottai.

<sup>2</sup>Head, Department of Noi-Naadal, Government Siddha Medical College and Hospital, Palayamkottai.

### ABSTRACT

*Siddha* system is an immense and multi dimensional science which found a deep relationship between the external world and the internal system of human. According to *Siddha* medical system a suitable proportion of the five basic elements and its harmonious work forms a healthy human body, the derangements of these five basic elements which cause derangements in the three bio regulating forces (*vatham, pitham, kabam*) to create disease. The ancient spiritual scientists encoded sacred sciences in the forms of poetry they elucidate tremendous values of medicinal plants as remedies for many recent day problems. RENAL STONES (*Kalladaippu*) a hard mass formed in the kidneys. It is an increasing urological disorder of human health affecting about 12% of the world population. This paper is the review of *Siddha* literatures which have certain herbal formulations as lithotriptic and diuretic for treatment of renal calculi may provide an effective impact.

### Keywords:

Renal calculi, *Kalladaippu*, *Acchamari*, *Yega mooligai prayogam*, single herbal formulation.

### Address for correspondence:

**Suguna M**

PG Scholar,

Department of Noi-Naadal

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## INTRODUCTION

According to *Siddha* medical system a suitable proportion of the five basic elements and its harmonious work forms a healthy human body, the derangements of these five basic elements which cause derangements in the three bio regulating forces (*vatham, pitham, kabam*) to create disease. The ancient spiritual scientists encoded sacred sciences in the forms of poetry they elucidate tremendous values of medicinal plants as remedies for many recent day problems. RENAL STONES (*Kalladaippu*)

a hard mass formed in the kidneys. It is an increasing urological disorder of human health affecting about 12% of the world population. It has been associated with an increased risk of end stage renal failure. It is a common cause of blood in the urine and pain in the abdomen flank, or groin. Development of the stones is related to decreased urine volume or increased excretion of stone-forming components such as calcium, oxalate, urate, cysteine, xanthine and phosphate. This paper is the review of *Siddha* literatures which have certain herbal formulations as lithotriptic and diuretic for treatment of renal calculi may provide an effective impact.

### Renal Calculi Siddha Perspective

According to *Siddha* concept *Kalladaippu* (*acchamari*) is characterised by obstruction while passing urine, pain in the tip of penis, Burning micturition, renal pain, low back pain, small sand like crystals present in urine. Caused by increased intake of impure stagnant water, high carbohydrate containing, foods that increases *Vatha* humour and controlling of semen.

Based on *Mukkutram* *Kalladaippu* classified into four types

1. *Vali kalladaippu*
2. *Azhal kalladaippu*
3. *Iyya kalladaippu*
4. *Mukkuutra kalladaippu*

### Methods of using Herbs in the management of Renal calculi:

#### Arugampul

Preparation : Decoction of  $\frac{1}{4}$  *palam*(8.75gm) *Arugampul* with White pepper (10) mixed with *paakalavu* cow's butter – Removes Renal stone.

#### Nerunjil

40 ml decoction of grinded *nerunjil* (68gms) and coriander seed(8gms) twice a day.

Table 1. Herbs used in the treatment of Kalladaippu

TAMIL NAME	BOTANICAL NAME	ENGLISH NAME	FAMILY
<i>Arugampul</i>	<i>Cynodon dactylon</i>	Bermuda grass, Vilfa stellata	Poaceae
<i>Nerunjil</i>	<i>Tribulus terrestris</i>	Puncture vine	Zygophyllaceae
<i>Sirupeelai</i>	<i>Aerva lanata</i>	Mountain knot grass	Amaranthaceae
<i>Aamanak-</i>	<i>Ricinus communis</i>	Castor	Euphorbiaceae
<i>Seeragam</i>	<i>Cuminum cyminum</i>	Cumin	Apiaceae
<i>Kuda-saipalai</i>	<i>Holarrhena pubescens</i>	Tellicherry bark	Apocyanaceae
<i>Elumichan tulasi</i>	<i>Ocimum gratissimum</i>	Shrubby basil	Lamiaceae
<i>Omam</i>	<i>Trachyspermum roxburghianum</i>	Celery Wild celery	Apiaceae
<i>Kollu</i>	<i>Macrotyloma uniflorum</i>	horsegram	Fabaceae

#### Sirupeelai

*Sirupeelai* decoction:

Equal quantity of *Sirupeelai*, *sirunerunjil*, root

#### maavilangu&peraamutti

Leaf juice of *sirupeelai*  $\frac{1}{8}$  to  $\frac{1}{4}$  *aalaakku* Paste of equal quantity of *sirupeelai* rootbark and *palm jaggery* mixed with  $\frac{1}{2}$  *aal akku* cow's milk twice a day.

#### Seeragam

It removes renal calculi

#### Kudasapaalai

It removes renal calculi

#### Elumichan tulasi

Decoction of *elumichan tulasi* helps to fragmentation of bladder stones and removes.

#### Omam

seed pcess diuretic and lithotriptic action

#### Kollu

The decoction of *kollu* (1:10 ratio; *kollu*:water) mixed with 650mg

#### Rocksalt

it removes stones of internal organs.

#### Aamanakku EXTERNALUSE

(*POTTANAM*) fomentation by cotyledons of *aamanakku* it relieves renal colic pain.

Figure 1. Herbs used in the treatment of Renal calculi



*Ricinus communis*



*Trachyspermum roxburghianum*



*Cuminum cyminum*



*Cynodon dactylon*



*Holarrhena pubescens*



*Ocimum gratissimum*



*Macrotyloma uniflorum*



*Tribulus terrestris*



*Aerva lanata*



**Table 2.** Characters of the herbs used in the treatment of kalladaippu

HERBS	PARTS USED	POTHU SEIGAI
<i>Arugampul</i>	Grass, Root	Diuretic, Emollient
<i>Nerunjil</i>	Whole plant	Diuretic, Refrigerant, Demulcent Tonic
<i>Sirupeelai</i>	Whole plant	Lithotriptic
<i>Aaamanaku</i>	Seed	Antivatha
<i>Seeragam</i>	Seed	Carminative, Stimulant, Stomachic, Astringent
<i>Kudasaipalai</i>	Bark,Seed	Lithotriptic, Tonic , Febrifuge .
<i>Elumichan thulasi</i>	Whole plant	Lithotriptic, Demulcent
<i>Omam</i>	Seed	Carminative, Tonic, Anti-Spasmodic
<i>Kollu</i>	Whole plant, Seed	Diuretic, Tonic

## DISCUSSION

Kidney stones present as an important and challenging clinical problem, diet plays an important role in the formation of kidney stones, especially the patients who are predisposed to the condition. A diet high in sodium, fat, meat and sugar, low in fibre, Vegetable protein and unrefined carbohydrates increase the risk for renal stone disease. *Siddha* herbal medicine when used judiciously can help in treatment and preventing recurrence of renal stones. The herbs *Arugampul*, *nerunjil*, & *kollu* having diuretic action has been proven effective in breaking and flushing out the kidney stones through urine, it also found effective in relieving the burning maturation. *Sirupeelai*, *Kudasaipalai* & *Elumichan thulasi* are the herbs having lithotriptic action which are effective in breaking and expulsion of renal stones, and it also helps to prevent future kidney stones. *Seeragam* & *Omam* are the drugs having carminative, anti-spasmodic & diuretic action they helps to prevent formation of renal stones, reduce burning maturation. *Aamanakku* is one of the best antivatha herb it relieves renal colic pain. This review paper reveals that *Siddha* herbal preparations plays a positive role in the treatment and prevention of renal calculi.

## CONCLUSION

*Siddha* system aims in both the treatment and prevention of the disease. This review concludes that appropriate medical therapy and lifestyle changes will cure the renal stone disease.

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## CONFLICTS OF INTEREST

None declared.

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