

A Descriptive study on causes of Kalladaippu (Urolithiasis)

Priyanka.G¹, Rajarajeswari .A², Manoharan.A³

¹PG Scholar, Department of PothuMaruthuvam, ²Lecturer, Department of NanjuMaruthuvam, ³Head and Professor Department of Pothu Maruthuvam, Government Siddha Medical College, Palayamkottai, Tirunelveli, Tamilnadu,India

Corresponding author: drpriyankaganesan234@gmail.com

ABSTRACT

Background: The *kalladaippunoi* is common disease in now a days, untreated kalladippu was produced many complications like recurrent urinary tract infections and obstructive pathology. In Siddha literatures clearly explained thecauses of *Kalladaippunoi*(Urolithiasis)is occurrence ismore intake ofprotein diet ,retention of urine in long period,poor intake of water,working under heat circumference, recurrent UTI and other causes were analysed in this study.Family history,oral intake of calcium pills and past history of*Kalladaippu*(urolithiasis) are other causes is included in this study.

Aim and Objective: To determine thevarious etiological causes of *Kalladaippu*.

Methods: Cross sectional Descriptive study was conducted 110cases in*kalladaippu* patients, andreporting to outpatient department at Government Siddha Medical College and hospital, Palayamkottai, Tirunelvelifrom June 2018 to August 2018.

Result: In this study, *Kalladaippu* was more common in males (68.18%) were as in female 31.82%. Causes of *Kalladaippu* wasincreased intake protein diet 66.36%,retention of urine56.36%,decreased intake of drinking water 47.27% , working under heat circumference 47.27%,past history of urolithiasis 46.36%, recurrent UTI 36.36% , intake of calcium pills 9.09%, hereditary 3.63%. In this studies

concluded that90% patients wereeaten mixed diet. **Conclusion:** According to above the studyin Siddha system of medicine has been describedvarious causes of Urolithiasis which can be correlated in Siddha and modern text books.This will be important role to Siddha physicians to early diagnose and avoid the recurrence of *kalladippunoi*. Further literary and clinical studies are necessary in future.

Key words: *Kalladaippu*, Urolithiasis, Achmari.

Corresponding author

Priyanka.G

PG Scholar, Department of
Pothu Maruthuvam

drpriyankaganesan234@gmail.com

INTRODUCTION

The siddha system is a unique and historical medical system with philosophical foundation. Among all urinary problems the formation of stone in the urinary tract is one of the main problems of urology. In siddha system of medicine, *Kalladaippu* is characterized by pain in the tip of genitalia, sudden intermittent obstruction flow of urine, low back pain, pain in loin and groin and presence of small sand like stone in urine. The causes of *kalladaippu* were drinking of bore-well water and wellspring water, rich protein diet, food which increases *vaathahumor* were described in siddha text.

The formation of stone in the urinary system, i.e. in kidney, ureter, and urinary bladder or in urethra is called urolithiasis. Urolithiasis is one of major disease of the urinary tract and is a major source of morbidity. Stone formation is one of the painful urologic disorders that occur in approximately 12% of the global population and its recurrence rate in male is 70-81%, in female 47-60%. There are many types of stones. They are calcium

oxalate, calcium phosphate, uric acid, struvite, cysteine, and medication induced stone. The main symptom of a urolithiasis is an extreme pain in the back, nausea and vomiting can also accompany the pain. The risk factors associated with the development of urolithiasis such as genetic factor, age, climate, Body Mass Index (BMI), weight, water intake, occupation and diet. Urolithiasis is more common in males than in female.

MATERIALS AND METHODS

This study used the cross sectional descriptive method. A four month duration study from June 2018-September 2018 was conducted in the Government Siddha Medical College and Hospital, Palayamkottai. The study was started after obtaining the ethical clearance from the Institutional Ethical Clearance (IEC). Patients were first checked for eligibility for inclusion in the present study and then only their informed consent was obtained. If the patient was not willing to participate in the present study, then they were not included in this study.

Objective of the study to describe the various causes of *Kalladaippu* (urolithiasis). It was a cross sectional descriptive study. The data was collected in the pre-designed questionnaire for this study. The questions were prepared to assess the knowledge on urolithiasis. The questions were to assess knowledge on food habits, type and amount of liquid intake, history of retention of urine, history of UTI, hereditary, intake of calcium pills, working under heat area. In which patients with the both sex, age 20 between 60 were included. The other symptoms like chronic appendicitis, renal failure, cholecystitis were excluded.

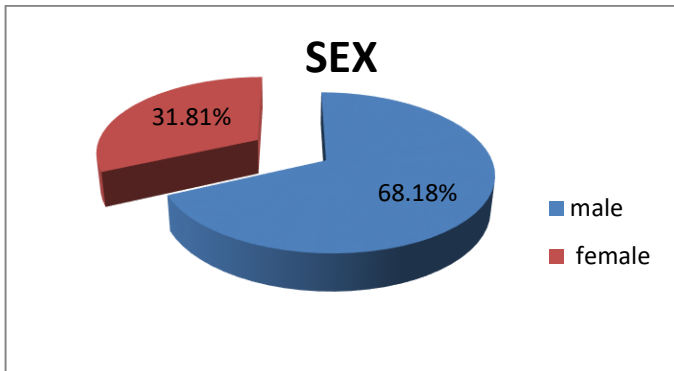
This study includes both the sex and detailed history was taken regarding the disease. A total number of 110 patients were included. In this study, eligible participants were between the ages 20-60. Personal profile of every included patient was recorded. In this questionnaire both modified and non-modified risk factors including age, sex, address, anthropometry, smoking, alcohol consumption, family history, diet

history, occupation, educational status were recorded.

DISCUSSION

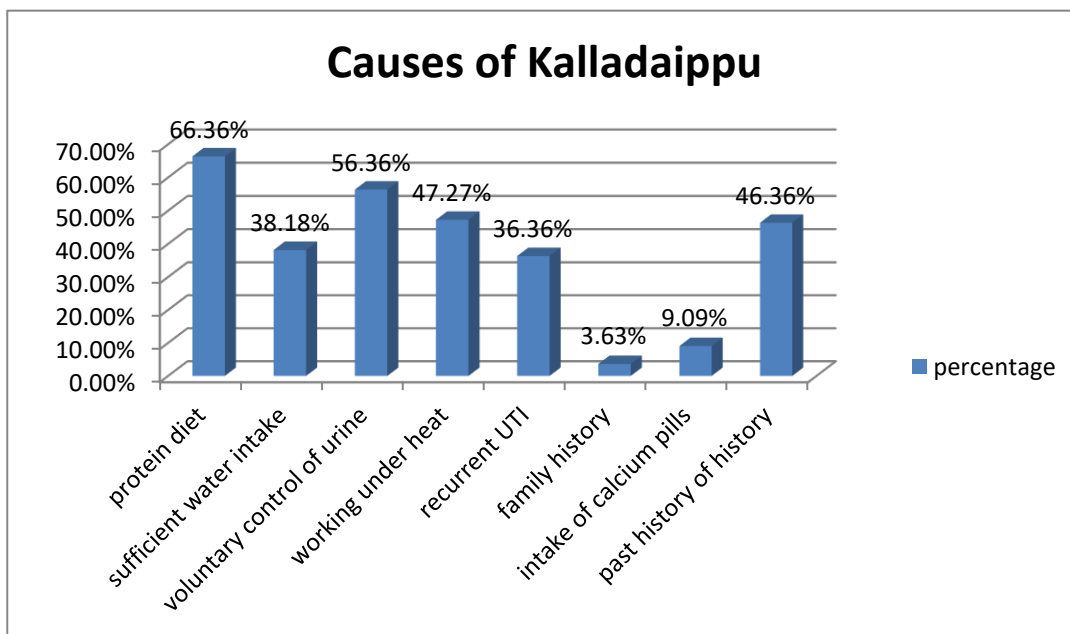
According to survey highest people i.e, people drinking bore well water and people having body mass index more than 30 having more chances for urolithiasis. In this study, increased BMI was more prevalence in 30% of urolithiasis. In recent studies, they found that renal stone formation is more frequent in male than female. They found that most of the patients with urolithiasis were male. This could be due to anatomical difference in urinary tract between male and female. Male urethra is longer than female urethra. Recent studies shows diet is also an important factor for development of urolithiasis. In this study, intake of mixed diet which leads to the formation of urolithiasis. A diet in high sodium and calcium intake also causes for formation of urolithiasis. Another major cause for urolithiasis is fewer intakes of water and non-vegetarian diet. In this study shows maximum number of non-vegetarians are affected with urolithiasis.

Table no:1Percentage of sex Table no:2 Percentage of BMI



BMI	NUMBER	Percentage
<20	10	9.09%
20-25	63	57.27%
25-30	29	26.36%
30-40	8	7.27%

Table no:3 Percentage of causes of Kalladaippu.



FOOD HABITS	NUMBER	PERCENTAGE
VEG	11	10%
NON VEG	0	0%
MIXED	99	90%

RESULTS

In this study totally 110 cases were recorded. In this, maximum cases were at the age between 30-60 years. The incidence of *kalladaippu* (urolithiasis) was commonly affected in both sexes comparatively males are affected than females. Male was 75 members (68.18%) and female was 35 members (31.82%). This study showed maximum patients were taking mixed type of diet was 99 members (90%); were as vegetarians was 11 members (10%). In this study, body mass index plays an important role. BMI < 20 was 9 members (9.09%); 20-25 was 63 members (57.27%); 25-30 was 29 (26.36%); 30-40 was 8 members (7.27%). The causes of urolithiasis were high intake of protein diet was 73 members (66.36%), retention of urine was 62 members (56.36%), working under heat area was 52 members (47.27%), past history of urolithiasis was 51 members (46.36%), less intake of water was 42 members (38.18%), recurrent UTI was 40 members (36.36%), taking calcium pills was 10 members (9.09%), family history was 4 members (3.63%).

CONCLUSION

Analysis of data shows that the most people were affected in age of 40-50 years. And the majority of patients were male. The retention of urine is considered as the major cause for formation of urolithiasis. High intake of protein diet is considered as a main cause for formation of urolithiasis. Family history and intake of calcium pills are minor causes for urolithiasis. The majority of people are in normal body mass index. This will be an important role to Siddha physicians to early diagnose and avoid the recurrence of *kalladippunoi*. Further literary and clinical studies are necessary in future.

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