MICROBIOLOGICAL PROFILE ON KAARA-LAVANA PARPAM

G. SRISAKTHI, DR.V. GANAPATHY, DR. BALAJI , DR. SOUNDARAJAN

MARIA SIDDHA MEDICAL COLLEGE, ATTUR, KANYAKUMARI, TAMIL NADU.

ABSTRACT

Siddha system has several formulations which are so useful for acute and chronic illness. Herbs, minerals, metals and living things have been used in a special manner of preparations of medicines for various illness. Moreover, traditional methods of formulations and preperation of medicines are crown to the Siddha system because these are all very safe, very cheap very effective and have no side effects. Particularly easy to prepare, very acceptable and has vast reference since ancient times.

INTRODUCTION

KAARA LAVANA PARPAM (KLP) is one among these medicines and has been used to cure acute and chronic illness of the renal system and prostatic gland enlargement. Alum Borax and Potassium nitrate (Padiyaram, Vengaram and vediyuppu) are the ingredients. All ingredients are inorganic state and it has a wide range of therapeutic activities. This parpam is prepared by special methods and it has very simple acceptable ingredients. Now a day's renal stones urethritis, cystitis, and related illness (urinary tract infections) are becoming very common problems. It is also very challenging to treat this. This parpam has been prepared and clinically used in the Institute of Traditional Health (ITH), Tirunelveli and Varma Research and Resource Centre, Vivekanandha Kendra, Kanyakumari for more than 15 years. More than hundreds of patients treated with this medicine at the clinical OPD level and the microbiological studies also expose very good results. In this poster presentation, the microbiological profile of kaara lavana parpam is studied.

INGREDIENTS

ALUMEN ALUM	– China karan padikaram
POTASSIUM NITRATE	– Vodippu
SODIUM BI BORATE	– Vengaaram porikaram

ALUMEN ALUM

Synonyms: Padikaram, Chinakaram

Ref: GUNADADAM THATHU JEEVAM

Action: Astringent, Styptic, Disinfectant, Anti-spasmodic

Dosage: 650mg to 1.3gms

Overdosage leads to nausea, vomiting, loose stools lead to ulceration of the GI tract

Used in dentistry- Periodontitis, Filariasis, Eyesores, Peptic Ulcers

Used in the treatment of bleeding disorders, diarrheal disorders or children's sore throat, gingival ulcers, menorrhagia etc.

POTASSIUM NITRATE

Synonyms: Vedippu

Action: Diaphoretic, diuretic

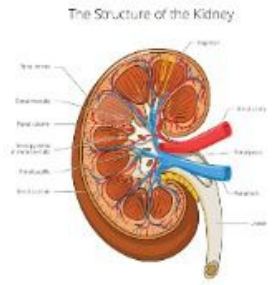
To be used with diluted water

Ulcer of GI tract, Menorrhagia, Oliguria

SODIUM BI BORATE

Synonyms: Vengaaram porikaram

Action: Diuretics, Emmenagogues, Uterine Stimulants, Lithotropic, Astringent, Skin Disorders, Peptic Ulcers, Bleeding Piles, Urolithiasis, Obstructive Uropathy, Stricture of the Urethra, UTI.



ALUMEN ALUM

POTASSIUM NITRATE

SODIUM BI BORATE

TESTING METHODOLOGY
By using "Kirby-Bauer Method"

Preparation of Plates

The medium is prepared and sterilized as directed by the manufacturer. Defibrinated blood may be necessary for tests on fastidious organisms, in which case the medium should be allowed to cool to 50° C before 7% of blood is added. Human blood is not recommended as it may contain antimicrobial substances. The medium should be poured into Petri dishes on a flat horizontal surface to a depth (25ml in an 85 mm circular dish, 60ml in a 135 mm circular dish). Poured plates are stored and used within one week of preparation. Before inoculation, plates should be dried with lids agar so that there are no droplets of moisture on the agar surface. The time to achieve this depends on the conditions. The PH of the medium should be checked at the time of preparation and should be 7.2 to 7.4.

Preparation of inoculum

At least four morphologically similar colonies from an agar medium are touched with a wire loop and the growth is transferred to a test tube containing 1.5 ml of sterile suitable broth. The tubes are incubated for 2 hours at 35°C to 37 C to produce a bacterial suspension of moderate turbidity. The density of the suspension is standardized by dilution with sterile saline or broth to a density equivalent to the barium sulphate standard, 0.5 McFarland units. Before use, the standard should be shaken vigorously.

Inoculation

Plates are inoculated within 15 minutes of preparation of the suspension so that the density does not change. A sterile cotton- wool swab is dipped into the suspension and surplus removed by rotation of the swab against the side of the tube above the fluid level. The medium is inoculated by even streaking of the swab over the entire surface of the plate in three directions.

Antibiotics discs

After the inoculums has dried, single discs are applied with forceps, a sharp needle or a dispenser and pressed gently to ensure even contact with the medium. When fastidious organisms are to be tested, touch multiple colonies with a loop and cross streak the appropriate plate for uniform distribution. Not more than six discs can be accommodated on an 85 mm circular plate and twelve are easily accommodated on a 135mm circular plate. Discs should be stored at 4°C in sealed containers with a desiccant and should be allowed to come room temperature before the containers are opened. Discs should be used before the expiry date on the label. If antimicrobial solution prepared in the laboratory are being used, then proceed as follows

- Pick up a 2mm looptul of the standard antibiotic solution and lower carefully onto a paper disc which, when moistened will adhere to the loop
- Place the moistened disc on the surface of inoculated plate in the appropriately labeled segment
- NOTE: Take care to avoid inadvertant "contamination" of other discs in the Petri dish with the antibiotic solution.
- Repeat for each antimicrobial agent to be used, placing the impregnated discs in their respectively labeled segments

Incubation

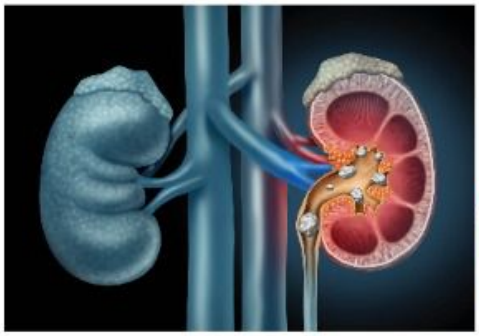
Plates are incubated for 16 to 18 hours at 35 to 37oC aerobically or in CO2 : atmosphere for fastidious organisms

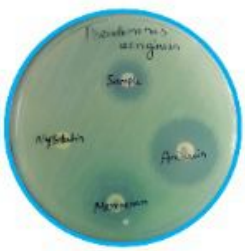
Reading of zones of inhibition

The diameters of zones are measured to the nearest millimeter with vernier calipers (preferably) or a thin transparent millimeter of scale. The inhibition point of abrupt growth which in most cases corresponds with the point of complete inhibition of growth, is considered as "Zone edge". In some batches of media, organisms may show a film of growth within the susceptible zone which may be ignored. Similar findings may be seen with swarming proteus spp.

MICROBIOLOGICAL PROFILE

Organism	Sample	Amikacin	Meropenam	Nystatin
E.coli	20mm	25mm	14mm	10mm
Pseudomonas aeruginosa	14mm	26mm	16mm	-
Acinetobacter	15mm	23mm	19mm	-





KAARA-LAVANA PARPAM

RESULTS

Kaara lavana parpam showed good microbiological activity in E.coli, Pseudomonas aeruginosa and Acinetobacter.

CONCLUSION

Kaaran Lavana Parpam (KLP) - A tradtional siddha mineral preperation is efficacious in the treatment of Urolithiasis, Urinary Tract Infection, Edematous as in congestive cardiac failure.

It is a potassium sparing diuretics..