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A Review – Narikel Lavan

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ABSTRACT: In the era of sedentary life style and unhealthy food habits, digestive related disorders or the word acidity is now a days is as common as the word "internet" or "google". Every other person irrespective of the age, either suffered from or seen their close ones suffering from the problem. Hence, is the need to explain that Ayurvedic formulations which contain minimum ingredients short processing technique and maximum therapeutic potential. *Narikel lavana* has been advised under the *rogadhikara* of *Parinaamshula*. Acharya have explained two separate methods of preparation of *Narikellavana-Sajala* (retaining the water inside coconut) *Nirjala* (without coconut water). So, this study aimed to overview the literary concept of preparation, overall studies conducted to show its action potential. So, that more and more ayurvedic physicians will frequent its use and document more clinical success stories in order to get a popularity to this remedy. *Narikel lavana* is a classical formulations which has been described in the *samhitas* such as *Chakradatta, Vangsena, Bhavprakash and Rasa Trangini*. The main indication of *Narikel lavana* is in *Parinam shola* which can be broadly correlated with Peptic ulcer as per modern parameters. As the name suggest *Narikel lavana* contains two ingredients *Narikel* (Coconut) and *Saindhava lavana* (rock salt)

Keywords :- Narikel lavana, Parinam shola, Peptic ulcer, Hyper acidity.

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INTRODUCTION:

Ayurveda is an extravagant resource where various newly developed manufacturing methods of herbal and mineral drugs can be explored. In most ancient and available classical texts like *Bruhattrayi*, a large number of herbo- mineral ingredients have been used to prepare the medicinal formulations. The branch of pharmaceuticals i.e. Bhaishajya-kalpana is evident since the time of *Charak Samahita*. Various forms of medicines with their manufacturing processes such as Taila, Ghrit, Avleha, Ghana, Asava, Arishta etc. are available in the Ayurvedic classics, similarly Lavan Kalpana was also introduced in the classical text later on. Lavana Kalpas are the formulations which contain any of the five types of *Lavanas*, especially Saindhav Lavana along with other herbo-mineral components. Narikel

Lavana is one such important and commonly used *Lavana Kalpa*. It consists of Narikel along and Saindhav Lavana. *Narikel Lavana* is recommended under the Rogadhikara of Parinaam Shula. Narikel Giri (coconut meat) and Narikel Jala are one of the richest sources of essential electrolytes. It predominantly contains high amount of Sodium and Potassium¹. Which is probably why *Narikel Lavana* is found to be effective against Parinaam Shula and other acid peptic disorders. Saindhav *Lavana* is essentially *Pittahara*. Saindhav also has Sheeta veerya. With its Shamana property, Saindhav pacifies the vitiated Pitta. Saindhav is again reach in electrolytes such as Sodium, Potassium, and Magnesium etc. Narikel Lavana is successfully used by senior Ayurved practitioners in day to day clinical practice.

This study aimed to overview the literary concept of preparation, overall studies conducted to show its action potential.

METHODS AND MATERIALS

For present Study various Ancient Classics of Ayurveda were referred. Also various National and International Journals were reviewed

Pharmaceutical processing of *Narikel Lavana*(NL)

According to *Rasatarngini*²

Contents: 1. Supakwa Nirikel-1

2. *Saindhav Lavan*-10 tola (Approx 100gms)

Procedure: Remove external hard fibrous material from outer surface of Supakwa (Fully ripened)*Narikel*, then make a hole at one intended side to fill powdered rock salt.Before that water should be removed from the cavity of coconut. After tight packing of rock salt inside, the hole should be packed properly. It is then smeared with mud (Multani Mitti)of one Angule (one cm)thickness. It is then allowed to dry in sunlight. It is then again smeared with cow dung and then exposed to fire in *Mahaputa*(Capacity of 1500 Cow

dung). After cooling it is removed from ash and removed external stuffing. Hard coconut shell should be removed and collect soft mass including *Lavana* and grounded in *Kalwa* to get Black colored fine powder. It is then preserved in glass airtight container.

According to *Bhavprakash –Shulroga* ³

Acharya Bhavmishra has followed the same procedure of Rastarangini only difference is; the procedure should be done with Sajala Narikela i.e. Saindhava should be filled in presence of water inside the cavity of coconut.

According to *Ayurved Sarsangraha*⁴

In *Ayurveda Sarsangraha* the procedure was same as *Rasatarangini*. It advocates removing of *Narikel Jala* from cavity before filling *Lavana*. Only difference is that after completion of process while collecting of *Narikel Lavana*, mere *Lavana* part is collected and grounded. Here soft black part was not taken for therapeutic purpose.

With the advent of technology modern machineries are employed in the preparations and research works have been carried out to analyze the *lavana kalpas* prepared with conventional and modern techniques.So now a day's according to convenience Electric furnaces is used in place of conventional *putas*.

Few researches regarding comparative study in modern and conventional methods is carried out to find difference.

Golecha Paras D et al. (2016)⁵ in the study on" Comparative Analytical Study of *Sajala* and *Nirjala Narikel lavana*" has concluded that implementation of either of the methods for obtaining *Narikel Lavana* showed remarkable difference in majority of the physico- chemical properties. XRF analysis has shown that

Nirjala(without water) *Narikel Lavan* contains higher amount of elemental Calcium as compared to *Sajala Narikel Lavana*.

The pH of *Sajala Narikel Lavana* is higher than that of *Nirjala Narikel Lavana*.. Preparation of *Sajal Narikel Lavan* required comparatively lesser heat, i.e. lesser amount of fuel is consumed during the entire procedure as compared to *Nirjala Narikel Lavana*.).

SR. NO.	PARAMETER	VALUE
1	pH	10.25
2	Total ash %	98.33
3	Acid insoluble ash%	6.13

Table No. 2 Physico- chemical analysis ⁶of Nirjala Narikel Lavana

Sr. no.	Parameter	Value
1.	pН	9.21
2.	Total ash%	98.35
3	Acid insoluble ash%	0.1

Sr. No.	Organoleptic character	Sajal Narikel Lavan	Nirjal narikel lavan
1.	Colour	Grayish black	Grayish black
2.	Odor	Pungent	Pungent
3.	Taste	Salty(lavana Rasatmak)	Salty(lavana
		In Hereit	Rasatmak)
4.	Texture	Rough,Fine	Rough, Fine
5.	Sound	Not specific	Not specific

Table No. 3 Organoleptic evaluation⁷ of Narikel Lavana

Physico chemical analysis of both Sajala and Nirjala Narikel Lavana revealed that the total ash values of both the samples showed no significant difference. Acid insoluble ash % in the Sajala Narikel Lavana was 6.13 whereas it was much lower i.e. 0.1 in the Nirjala Narikel Lavana. Acid insoluble ash indicates the presence inorganic matter such as silica in the tested sample. pH of Sajala Narikel Lavana was slightly higher (10.25) than that of Nirjala Narikel Lavana which was 9.21. Both Sajala and Nirjala Narikel Lavana were found to have similar organoleptic characters, i.e. both were grayish black in color and had a characteristic pungent smell. Both were salty when tasted.

Therapeutic Dose and uses of NarikelLavana

Dose-2 Masha (2gms)

Indication:Pittanashana(Pacify Pitta),Amlapitta(Hyperacidity),vatajapittajakaphaja-sannipatajaShula(colic).(Colic)

Properties of Narikel;

Narikel is an important ingredient in NL. It has enormous medicinal properties apart from nutritional values. The kernel of fruit contains nitrogenous substances, glucose, and other similar substances. Coconut milk contains protein, sucrose, and vitamin A and B". It *is Madhur, Shitvirya* and *Madhurvipaka*. It is indicated in various digestive disorders such as *Amlapitta* (Acidity), *Parinamashula*(Pain due to Duodenal Ulcer), *Gulma* (Distention due to doshas, *Atisara-raktatisara* (Diarrhoea and Dysentry)⁸

Properties of Saindhav Lavan;

Saindhava Lavana has been considered as a medicinal qualities as compare to other salts and is compatible with everybody. It has medicinal properties such as *Hridya* (Good for heart),*Netrya*(Good for eyes),*Vrishya*(Good for fertility),*Dipan,Pachana* (Improve appetite and digestion)and Pacify all three *Doshas*. As it increase gastric secretion it is helpful in relieving constipation.⁹

Therapeutic Activity of Narikel Lavan

a good for digestion and It is Pitaashamana(Pacify *Pitta*).It relieves acidity and related pain. It alleviates Pain induced due to gastric and duodenal ulcers. It is mainly mentioned for choly-lithiasis and choly-cystitis Hence Narikel Lavan is prescribed with Nousadar and Javashkar powder with water with dose of 2gms.¹⁰ Narikel Lavana is taken with Pippali Churna in Vataj, Pittaja, Shleshmic and Sannipataj Shula.¹¹

Probable Mode Of Action

The probable mode of action of *Narikel Lavan* is due to its alkaline nature. Mostly in its therapeutic activity it acts on disturbances of gastric acid and its complication. In hyperacidity it neutralize excessive acid in stomach. Gastric ulcer and duodenal ulcer both are the complication of extreme acidic conditions. Gall stone formation is most common among patients having frequent Acidity. *Vishyandi* and *Bhedan* properties of *Saindhava* might help to dissolves the stones in Gall Bladder.

Mahajan roshi et al (2016)¹² in the study of *Narikela Lavana* in *Amlapittaa*(Acidity)has concluded with statistically significant result on various symptoms of Acidity with use of *Narikel Lavana* 250 mg twice daily for two months. Yadav S. et al. (2017)¹³has concluded in the study on "Characterisation of *Narikela lavana*." that *Narikel Lavana* is basically a nanocrystalline material which consists of activated carbon and other elements like Na, K, Cl, Mg etc.

The porous surface of **activated charcoal** has a negative electric charge which will attract the positive charged unwanted toxins and gas and help to remove them. It also helps in moving unwanted bacteria through the digestive tract faster so that before they multiply and spread, they are eliminated from the body. Study also noticed alkaline nature of Narikela Lavana.

Proof of activated charcoal:

Vasavdutta et al.(2015)¹⁴in the study on "Activated charcoal- In *Narikela lavan*?" has tested *Narikel Lavana* with the help of Modern chemistry and concluded that at such temperature activated charcoal is produced. So *Narikela Lavana* was tested by common test of methyl orange and iodine solution for presence of activated charcoal. Discoloration was observed in both the tests which indicate that activated charcoal is formed in *Narikela Lavan*.

DISCUSSION

Lavan Kalpana one such formulation in Bhaishjya Kalpana, which is been easily prepared with less, affords. It is mentioned since ancient times for Parinam shula but rarely practiced by physicians for therapeutic purposes.

It's clear pharmaceutical techniques are mentioned in *Bhavprakasha*, *Rasatarangini* and *Ayureved Sarasangraha*. While reviewing its pharmaceutical aspects it is observed that there are few disagreements over selection of *Sajala* and *Nirjala Narikel* and the part to be collected by the end of the process. As *Narikela Jala* has nutritious and medicinal properties, it is taken in use by some *Acharyas*. Others for convenience and fear of breaking of coconut at the time of Procedure, removes water before packing Salt.

In analytical study it got higher PH with Sajala Narikel with less fuel consumption but higher elemental calcium with Nirjala *Narikel*. In another analytical study about Characterization of Narikela lavana confirmed active charcoal formation which may help to adsorb Poisonous substances and extra acid in GI tract. Various important elements such as Na, K, Mg etc. are also observed in the study. Hence elemental contents in salt as well as in Coconut boost therapeutic potential of Narikel Lavan. Less Potassium content was observed in *Nirjala Narikela* in another study but the yield is more. In structural and Optical study of *Narikel Lavan*, Nano crystalline form was observed which advocates easy absorption of drug in blood stream. Most of the observation in these study help to guide further study but major factors such as temperature, use of fuel

sources, size of *Narikel*, width of packing material will decide yield ,elemental analysis, formation of activated charcoal or not and final product estimation. So there need a repeated study on various pharmaceutical features of *Narikel Lavan*.

In therapeutic aspects it can be said that due to colossal properties of both Saindhava and Narikela, its preparation is beneficial in various ailments. Apart from relieving acidic conditions and related pain due to its alkaline property it is also indicated in *Pittashoshaja shula* which capture the attention for this medication. There is only symptomatic relief in modern medicine and final treatment is surgery. So there need to study of *Narikel Lavan* along with proper vehicle on choly-lithiasis i.e. Gallstones in order to get promising medicine which could save patients from Regarding controversy over surgery. collection of only *Lavan* or Charred Coconut with Lavana will be the part of research. It could be proved by analytically and therapeutically. There is also need to

rule out role of *Anupana* with *Narikel Lavan* for its synergistic action.

CONCLUSION

Narikel Lavan has been recommended under the Rogadhikara of Parinaama above mentioned Shula. From the observations, it can be concluded that implementation of either of the methods for obtaining *Narikel Lavan* results in least remarkable difference in majority of the physico- chemical properties. Whereas, XRF analysis has shown that *Nirjala Narikel Lavan* contains higher amount of elemental Calcium as compared to Sajala *Narikel Lavana*. Ayurvedic Pharmaceutics has enormous strength in healing mankind with the help of its precious formulation. Narikel Lavan is such a remedy which is easy to prepared, palatable and cost effective

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