ISSN 2456-3110
Vol 9 · Issue 3
March 2024

JAiMS
INTERNATIONAL

Journal of Ayurveda and Integrated Medical Sciences

www.jaims.in

JAIMS

An International Journal for Researches in Ayurveda and Allied Sciences

Maharshi Charaka
Ayurveda

Indexed

Journal of
Ayurveda and Integrated Medical Sciences
ISSN 2456-3110
ORIGINAL ARTICLE March 2024

A Pharmaceutical and Analytical Study on *Palasha Kshara*

Manju Pilania[1], Aslam Khan[2], Mahesh Dixit[3], Hari Mohan Meena[4]

[1]*Post Graduate Scholar, PG Department of Shalya Tantra, MMM Govt. Ayurved College, Udaipur, Rajasthan, India.*

[2]*Assistant Professor, Aligarh Ayurvedic Medical College & ACN Hospital, Aligarh, Uttar Pradesh, India.*

[3]*Professor & HOD, Principal, MMM Govt. Ayurved College Udaipur, Rajasthan, India.*

[4]*Professor, PG Department of Shalya Tantra, MMM Govt. Ayurved College, Udaipur, Rajasthan, India.*

ABSTRACT

Kshara is an important dose type stated in Ayurveda that is made from plant ash. *Kshara* has some similar qualities, such as an alkaline nature, water solubility, and a pale colour. *Kshara* has an advantage over all surgical and parasurgical measures since it can be used on skinny, frail individuals who are afraid of surgery. In classical writings, many herbs like as *Apamarga, Snuhi*, and *Kadali Palasha* are utilised to create *Kshara*, either individually or combined. The therapeutic usage of *Kshara* of different plants differs from one another, hence analytical research of each *Kshara* is required. **Aims & Objectives** The current study involves the preparation and analysis of *Palasha* (*Butea monosperma*) *Kshara* in order to better understand its properties. **Material and Methods:** *Kshara* preparation consists of several steps. In this study, *Palasha Kshara* is prepared using the general process described in the *Sharangadhara Samhita*. The prepared *Kshara* is submitted to several physicochemical evaluations, and the results are concluded. **Results**: The *Palasha Kshara* has physical features such as pale colour, strong odour, and softness to the touch. Chemically, it contains potassium, phosphorus, and sulphur, as well as trace amounts of other elements. The current study describes the methods and findings of *Palasha Kshara's* medicinal and analytical studies.

Key words: *Palasha Kshara, Butea monosperma, Kshara, Physio, chemical analyses*

INTRODUCTION

Shabda Kalpdruma defines the word *Kshara* as *Kshara Sancalani,* which means to melt or move.[1] *Sushruta* defines *Kshara* as a substance with *Ksharana* property, which signifies the removal of excessive morbid Doshas. *Kshara* also has the virtue of disintegration. *Kshara's* superiority can be explained by the fact that they execute the work of incision, puncture, and scarification, as well as correcting Tri Dosha derangements, and they affect the sick part uniformly. *Kshara's* are compounds with a pale colour, a burning sensation, a pungent flavour, endothermic properties, and an irritant.

Palasha Kshara is a *Kshara* preparation recorded in classical manuscripts as being used to cure liver enlargement, spleen enlargement, urinary stones, tumours, and other conditions. *Palasha Kshara* is also utilised internally as a component in compound medications. So, here is an attempt to examine the preparation and analytical examination of *Palasha-Kshara* as described in the *Sharangdhar Samhita.*[2]

MATERIALS AND METHODS

The *Kshara* made from the *Palasha* (*Butea monosperma*) plant with the wood (*Kashtha*) was submitted to organoleptic and analytical testing, and the results were used to determine the elemental and chemical composition of the *Palasha Kshara.*

Address for correspondence:
Dr. Manju Pilania
Post Graduate Scholar, PG Department of Shalya Tantra, MMM Govt. Ayurved College, Udaipur, Rajasthan, India.
E-mail: minu15pilania@gmail.com

Submission Date: 09/01/2024 Accepted Date: 16/02/2024

Access this article online

Quick Response Code

Website: www.jaims.in

DOI: 10.21760/jaims.9.3.10

ISSN: 2456-3110 ORIGINAL ARTICLE March 2024

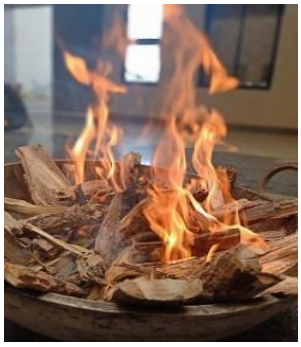
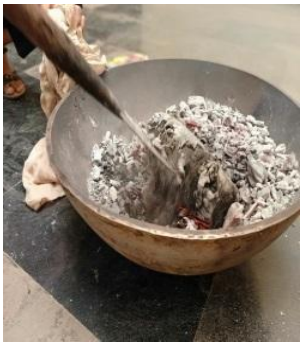
Preparation of *Palasha Kshara*

Palasha wood, also known as *Kashtha* (*Butea monosperma*), was gathered in December and January. *Palasha Kshara's* authentication was completed. The material was cleaned, split into smaller pieces, and left to dry. After appropriate drying, all of the gathered material was burned publicly in a large iron pan, and the resulting white ash was collected after self-cooling. The ash was filtered through mesh no. 20 to remove unburned material. The ash produced after filtration was combined with four times as much water. All of the ash was carefully mixed with water and set aside for 16 hours. The next morning, the supernatant clear water was filtered through a fine cotton towel. The filtration was repeated 21 times.

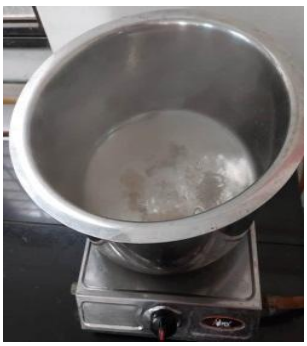
The acquired *Ksharajal* was heated to evaporate its water content. Continuous stirring was used during the water evaporation process to prevent material from sticking and burning. The flame on the gas stove was medium. When practically all of the material's water content had evaporated, the heating was turned off, and the remnant was dried in sunshine to produce a pale grey powder. It was gathered and stored in an airtight container.[3]

Photographs showing preparation of *Palasha Kshara*

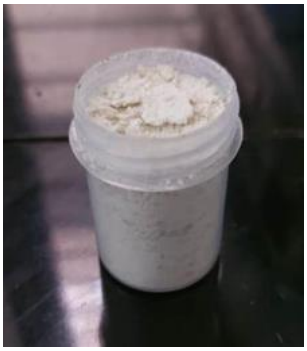








ISSN: 2456-3110 ORIGINAL ARTICLE March 2024

Tests for Physical properties of *Palasha Kshara*

Colour, odour, touch, and taste are some of the physical criteria listed in ancient classics that are judged using sense organs such as the eye, nose, skin, and tongue. In traditional medicine, the testing of manufactured drugs is mentioned to check the traits and attributes of the items. This method checks qualities that are easily detected using a sense organ. The acquired physical features of *Palasha Kshara* were compared to the general characteristics of *Kshara* as described by *Sharangadhara* and *Sushruta Samhita.* Textual references to *Kshara* characteristics describe its colour as *Sitaprabha* (whitish) or *Shukla, Churnabha* (amorphous in nature), and smooth in texture.

Physico-chemical tests

PH of *Kshara*[4]

The PH value represents the acidity or alkalinity of an aqueous solution. The Pharmacopoeia contains PH standards and limitations for those chemicals in which PH as a measure of H+ ion activity is significant for stability or physiological appropriateness. The measurement is performed at a temperature of 25°C (± 2°C).

Loss on Drying (LOD)[5]

This test is used to determine the moisture content of a sample medication.

Procedure: Clean the Petri dish with distilled water and dry it in an oven at 105°C for 2 hours. One gramme of drug sample is placed in a pre-weighed dried Petri dish. Dry it in an oven at 105°C until it reaches a steady weight. The Petri dish should be removed, self-cooled, and weighed immediately. The weight loss, or loss on drying, is determined and reported as % w/w.

Ash Value[6]

This test evaluates the sample's ash content.

Procedure: Clean the crucibles with distilled water and dry them in an oven at 105° C for 2 hours. One gramme of carefully weighed material is placed in a pre-weighed dried crucible and burned in a muffle furnace at 600°C. The crucible is then removed, self-cooled, and weighed immediately. The proportion of ash obtained is computed using the weight of the ash and reported as % w/w.

Observations and Results

Table 1: The different observations during the Pharmaceutical process

Weight of fresh material collected (*Palasha* - Wood)	10.750 Kg
Weight of *Palasha* after drying	5.00 Kg
Weight of fine ash obtained	625 gm
Amount of water used to mix the ash	2.5 Liter
Ksharajala obtained	1.9 Liter
Time required to evaporate the water	2 hours 30 min
Weight of *Kshara* obtained	25gm
Percentage of *Palasha Kshara* obtained	4 % of Ash and 0.5 % of dried *Palasha* wood

In the quality control laboratory, *Palasha Kshara* was tested using the organoleptic characteristics of colour, smell, touch, and taste.

Table 2: Shows the obtained results after the organoleptic examination

SN	Organoleptic Characters	Result
1.	Colour	Whitish
2.	Smell	Pungent
3.	Touch	Soft
4.	Taste	Salty

Physico-chemical characters like PH, loss on drying, ash value and acid insoluble ash were tested in quality Control laboratory.

Table 3: Physico-chemical characters

SN	Test	Result
1.	PH	11.5

ISSN: 2456-3110 ORIGINAL ARTICLE March 2024

2.	Loss on drying (% w/w)	2.982
3.	Ash value (%w/w)	92.94
4.	Acid insoluble ash	0.28

Discussion

Palasha Kshara is referenced in many classical sources. It is commonly used internally to treat a variety of disorders such as kidney stones, tumours, enlarged livers, and spleen. Externally, it is used to promote wound healing. *Palasha Kshara* can be prepared with leaves, flowers, or wood, however wood produces more ash and is used in this study. Material must be dry before it can be burned properly. *Palasha* burns best while open, producing the finest ash. *Kshara* is prepared with four times as much water. According to the passage in the Sushruta Samhita, water is used six times. More water requires more time to evaporate. To completely dissolve the *Kshara* in water, the ash must be mixed well. Ash mixed with water should settle down, therefore approximately 14 to 16 hours are required. The supernatant fluid should be carefully separated using fine cotton cloth or filter paper. To entirely eliminate insoluble particles, the filtration process is repeated 21 times. To prevent sticking to the pan, the heat was set to medium. The colour of water changes from colourless to brown, then to whitish grey. The acquired *Kshara* was white grey in colour and felt amorphous to the touch. The PH of *Kshara's* aqueous solution is 11.5, indicating the alkaline character of *Palasha Kshara*. Quantitative analysis reveals the presence of potassium in considerable quantities, along with sulphate.

Conclusion

Palasha Kshara is an alkali made from the water-soluble ash of the *Palasha* plant. An aqueous solution produces potassium-like properties. *Palasha Kshara* contains sulphates, phosphate, iron (ferrous and Fe2O3), aluminium (Al2O3), calcium, magnesium, potassium, carbonate, chloride, and sodium. *Palasha Kshara's* alkaline nature aids in the treatment of *Agnimandya* (Digestive impairment), *Gulma* (Abdominal lump), *Pleehayakrutvhrudhi* (Enlargement of liver and Spleen), *Mutrakrucchra (*Dysuria), *Ashmari* (Calculus), *Mutrasharkara* (Gravel in urine), *Grahani* (Malabsorption syndrome), *Anaha* (Distension of abdomen due to obstruction to passage of urine and stools), *Visuchika* (Gastro-enteritis with piercing pain) as *PaneeyaKshara* (i.e., when used internally). Because of its cutting and healing properties, it is also employed as *Pratisarneeyakshar* (when used externally) or in *Ksharasutra* alongside other *Kshara* in the treatment of wounds, non-healing ulcers, and fistulas in Ano *(Bhagandar).* The involvement of potassium ions found in the *Kshara* is the next area of inquiry.

References

1. Raja Radha Kanta Deva, Shabdkalpadrum, volume 2, Varanasi, Choukhambha Sanskrit Series, Page no 231.
2. Shilaja Shrivastava, Sharangadhara Samhita. 4th Edition. Varanasi: Chaukambha Orientalia; 2005, page no. 275.
3. Shilaja Shrivastava, Sharangadhara Samhita. 4thEdition. Varanasi: Chaukambha Orientalia; 2005, 275.
4. G. S. Lavekar, Laboratory guide for the analysis of Ayurveda and siddha formulations, CCRAS, Page No. 42.
5. G.S.Lavekar, Laboratory guide for the analysis of Ayurveda and Siddha formulations, CCRAS, , Page No. 27.
6. G.S.Lavekar, Laboratory guide for the analysis of Ayurveda and Siddha formulations, CCRAS, Page No. 28.

How to cite this article: Manju Pilania, Aslam Khan, Mahesh Dixit, Hari Mohan Meena. A Pharmaceutical and Analytical Study on Palasha Kshara. J Ayurveda Integr Med Sci 2024;3:68-71.
http://dx.doi.org/10.21760/jaims.9.3.10

Source of Support: Nil, **Conflict of Interest:** None declared.

****